

# Panasonic®



## Administrator Guide

### SIP Phone

---

Model No. **KX-HDV230**

Thank you for purchasing this Panasonic product.  
Please read this manual carefully before using this product and save this manual for future use.

In this manual, the suffix of each model number is omitted unless necessary.

# Introduction

## Outline

This Administrator Guide provides detailed information on the configuration and management of this unit.

## Audience

This Administrator Guide contains explanations about the installation, maintenance, and management of the unit and is aimed at network administrators and phone system dealers. Technical descriptions are included in this guide. Prior knowledge of networking and VoIP (Voice over Internet Protocol) is required.

## Related Documentation

### Quick Start Guide

Briefly describes basic information about the installation of the unit.

### Operating Instructions

Describes information about the installation and operation of the unit.

Manuals and supporting information are provided on the Panasonic Web site at:  
<http://www.panasonic.net/pcc/support/sipphone/>

## Technical Support

When technical support is required, contact your phone system dealer/service provider.

## Trademarks

- Microsoft, Excel, Internet Explorer, Outlook, and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- Firefox is a registered trademark of the Mozilla Foundation.
- Google Chrome is a registered trademark of Google Inc.
- All other trademarks identified herein are the property of their respective owners.
- Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation.

## NOTES

- The screen shots shown in this guide are provided for reference only, and may differ from the screens displayed on your PC.

# Table of Contents

<b>1</b>	<b>Initial Setup</b>	<b>21</b>
1.1	<b>Setup</b>	<b>22</b>
1.1.1	Factory Defaults	22
1.1.2	Language Selection for the Unit	22
1.1.3	Basic Network Setup	22
1.1.4	Overview of Programming	25
1.1.5	Phone User Interface Programming	26
1.1.5.1	Changing the Language for Phone User Interface Programming	26
1.1.6	Web User Interface Programming	26
1.1.6.1	Password for Web User Interface Programming	26
1.1.6.2	Changing the Language for Web User Interface Programming	27
1.1.6.3	Before Accessing the Web User Interface	27
1.1.6.4	Accessing the Web User Interface	29
1.2	<b>Firmware Update</b>	<b>32</b>
1.2.1	Firmware Update	32
<b>2</b>	<b>General Information on Provisioning</b>	<b>35</b>
2.1	<b>Pre-provisioning</b>	<b>36</b>
2.1.1	What is Pre-provisioning?	36
2.1.2	How to Obtain a Pre-provisioning Server Address	36
2.1.3	Server Address Formats	36
2.1.4	Obtaining a Provisioning Server Address via SIP PnP	37
2.1.5	Obtaining a Provisioning Server Address from DHCP Options	38
2.2	<b>Provisioning</b>	<b>42</b>
2.2.1	What is Provisioning?	42
2.2.2	Protocols for Provisioning	42
2.2.3	Configuration File	42
2.2.4	Downloading Configuration Files	44
2.2.5	Provisioning Server Setting Example	48
2.2.6	Encryption	49
2.3	<b>Priority of Setting Methods</b>	<b>50</b>
2.4	<b>Configuration File Specifications</b>	<b>51</b>
2.5	<b>Configuration File Examples</b>	<b>53</b>
2.5.1	Examples of Codec Settings	53
2.5.2	Example with Incorrect Descriptions	54
<b>3</b>	<b>Phone User Interface Programming</b>	<b>55</b>
3.1	<b>Phone User Interface Programming</b>	<b>56</b>
3.1.1	Opening/Closing the Web Port	56
<b>4</b>	<b>Web User Interface Programming</b>	<b>57</b>
4.1	<b>Web User Interface Setting List</b>	<b>58</b>
4.2	<b>Status</b>	<b>69</b>
4.2.1	Version Information	70
4.2.1.1	Version Information	70
	Model	70
	Operating Bank	70
	IPL Version	70
	Firmware Version	70
4.2.2	Network Status	71
4.2.2.1	Network Common	71
	MAC Address	71

## Table of Contents

---

	Ethernet Link Status .....	71
	IP Address Mode .....	71
4.2.2.2	IPv4 .....	72
	Connection Mode .....	72
	IP Address .....	72
	Subnet Mask .....	72
	Default Gateway .....	72
	DNS1 .....	72
	DNS2 .....	73
4.2.2.3	IPv6 .....	73
	Connection Mode .....	73
	IP Address .....	73
	Prefix .....	73
	Default Gateway .....	73
	DNS1 .....	74
	DNS2 .....	74
4.2.2.4	VLAN .....	74
	Setting Mode .....	74
	LAN Port VLAN ID .....	74
	LAN Port VLAN Priority .....	74
	PC Port VLAN ID .....	74
	PC Port VLAN Priority .....	75
4.2.3	VoIP Status .....	75
4.2.3.1	VoIP Status .....	75
	Line No. (1–6) .....	75
	Phone Number .....	75
	VoIP Status .....	75
<b>4.3</b>	<b>Network .....</b>	<b>76</b>
4.3.1	Basic Network Settings .....	76
4.3.1.1	IP Addressing Mode .....	77
	IP Addressing Mode .....	77
4.3.1.2	IPv4 .....	77
	Connection Mode .....	77
	DHCP Host Name .....	78
	IP Address .....	78
	Subnet Mask .....	78
	Default Gateway .....	78
	Auto DNS via DHCP .....	79
	DNS1 .....	79
	DNS2 .....	79
4.3.1.3	IPv6 .....	79
	Connection Mode .....	79
	IP Address .....	80
	Prefix .....	80
	Default Gateway .....	80
	Auto DNS via DHCP .....	81
	DNS1 .....	81
	DNS2 .....	81
4.3.2	Ethernet Port Settings .....	81
4.3.2.1	Link Speed/Duplex Mode .....	82
	LAN Port .....	82
	PC Port .....	82
4.3.2.2	LLDP .....	83
	Enable LLDP .....	83
	Packet Interval .....	83

	PC VLAN ID .....	83
	PC Priority .....	83
4.3.2.3	VLAN .....	84
	Enable VLAN .....	84
	IP Phone VLAN ID .....	84
	IP Phone Priority .....	84
	PC VLAN ID .....	84
	PC Priority .....	85
4.3.3	HTTP Client Settings .....	85
4.3.3.1	HTTP Client .....	85
	HTTP Version .....	85
	HTTP User Agent .....	86
	Authentication ID .....	86
	Authentication Password .....	86
4.3.3.2	Proxy Server .....	87
	Enable Proxy .....	87
	Proxy Server Address .....	87
	Proxy Server Port .....	87
4.3.4	STUN Settings .....	88
4.3.4.1	STUN .....	88
	Server Address .....	88
	Port .....	88
	Binding Interval .....	89
4.3.5	Multicast Paging Settings .....	89
4.3.5.1	Multicast Paging .....	89
	IPv4 Address (Group 1–5) .....	89
	IPv6 Address (Group 1–5) .....	90
	Port (Group 1–5) .....	90
	Priority (Group 1–3) .....	90
	Label (Group 1–5) .....	90
	Enable Transmission (Group 1–5) .....	90
4.3.6	LDAP Settings .....	91
4.3.6.1	LDAP .....	91
	Enable LDAP .....	91
	Server Address .....	91
	Port .....	92
	User ID .....	92
	Password .....	92
	Max Hits .....	92
	Name Filter .....	92
	Number Filter .....	93
	Name Attributes .....	93
	Number Attributes .....	93
	Display Name .....	93
	Enable DNS SRV lookup .....	93
4.3.7	Xtended Service Settings .....	94
4.3.7.1	Xtended Service .....	94
	Enable Xtended Service .....	94
	Server Address .....	95
	Port .....	95
	Protocol .....	95
	User ID (Line 1–6) .....	95
	Password (Line 1–6) .....	95
	Enable Phonebook (Line 1–6) .....	96
	Phonebook Type (Line 1–6) .....	96

## Table of Contents

---

	Enable Call Log (Line 1–6) .....	96
4.3.8	UC Settings .....	97
4.3.8.1	Presence Feature .....	97
	Enable UC .....	97
	Server Address .....	97
	Local XMPP Port .....	97
	User ID .....	98
	Password .....	98
4.3.9	XML Application Settings .....	99
4.3.9.1	XML Application .....	99
	Enable XMLAPP .....	99
	User ID .....	99
	Password .....	100
	Local XML Port .....	100
	Bootup URL .....	100
	Initial URL .....	100
	Incoming Call URL .....	100
	Talking URL .....	101
	Making Call URL .....	101
	Call Log URL .....	101
	Idling URL .....	101
	Enable FF Key .....	101
4.3.9.2	Shortcut Key Settings .....	102
	Soft Key A (Left) .....	102
	Soft Key B (Center) .....	102
	Soft Key C (Right) .....	102
4.3.9.3	XML Phonebook .....	102
	LDAP URL .....	102
	User ID .....	103
	Password .....	103
	Max Hits .....	103
4.3.10	ACD Settings [Line1]–[Line6] .....	104
	Enable ACD .....	104
4.3.11	Call Center Settings [Line1]–[Line6] .....	105
	Enable Call Center .....	105
	Disposition Code .....	105
	Customer Originated Trace .....	105
	Hoteling Event .....	106
	- User ID .....	106
	- Password .....	106
	Status Event .....	106
<b>4.4</b>	<b>System .....</b>	<b>106</b>
4.4.1	Language Settings .....	107
4.4.1.1	Selectable Language .....	107
	IP Phone .....	107
	Web Language .....	108
4.4.1.2	Language Settings .....	109
	IP Phone .....	109
	Web Language .....	109
4.4.2	User Password Settings .....	110
4.4.2.1	User Password .....	110
	Current Password .....	110
	New Password .....	110
	Confirm New Password .....	111
4.4.3	Admin Password Settings .....	111

4.4.3.1	Admin Password .....	112
	Current Password .....	112
	New Password .....	112
	Confirm New Password .....	112
4.4.4	Time Adjust Settings .....	113
4.4.4.1	Synchronization (Synchronisation) .....	113
	Server Address .....	113
	Synchronization Interval (Synchronisation Interval) .....	113
4.4.4.2	Time Zone .....	113
	Time Zone .....	113
4.4.4.3	Daylight Saving Time (Summer Time) .....	114
	Enable DST (Enable Summer Time) .....	114
	DST Offset (Summer Time Offset) .....	114
4.4.4.4	Start Day and Time of DST (Start Day and Time of Summer Time) .....	114
	Month .....	114
	Day of Week .....	115
	Time .....	115
4.4.4.5	End Day and Time of DST (End Day and Time of Summer Time) .....	115
	Month .....	115
	Day of Week .....	116
	Time .....	117
4.4.5	Advanced Settings .....	117
4.4.5.1	Soft Key during IDLE Status .....	117
	Soft Key A (Left) .....	117
	Soft Key B (Center) .....	118
	Soft Key C (Right) .....	118
4.4.5.2	IP Phone .....	118
	Enable Admin Ability .....	118
	Enable IP Phone Lock .....	118
	Password for Unlocking .....	119
<b>4.5</b>	<b>VoIP .....</b>	<b>119</b>
4.5.1	SIP Settings .....	119
4.5.1.1	User Agent .....	119
	User Agent .....	119
4.5.1.2	NAT Identity .....	120
	Enable Rport (RFC 3581) .....	120
	Enable Port Punching for SIP .....	120
	Enable Port Punching for RTP .....	120
4.5.2	SIP Settings [Line 1]–[Line 6] .....	121
4.5.2.1	Basic .....	121
	Phone Number .....	121
	Registrar Server Address .....	121
	Registrar Server Port .....	122
	Proxy Server Address .....	122
	Proxy Server Port .....	122
	Presence Server Address .....	122
	Presence Server Port .....	122
	Outbound Proxy Server Address .....	123
	Outbound Proxy Server Port .....	123
	Service Domain .....	123
	Authentication ID .....	123
	Authentication Password .....	123
4.5.2.2	Advanced .....	124
	SIP Packet QoS (DSCP) .....	124
	Enable DNS SRV lookup .....	124

## Table of Contents

---

	SRV lookup Prefix for UDP .....	124
	SRV lookup Prefix for TCP .....	125
	SRV lookup Prefix for TLS .....	125
	Local SIP Port .....	125
	SIP URI .....	126
	T1 Timer .....	126
	T2 Timer .....	126
	REGISTER Expires Timer .....	127
	Enable Session Timer (RFC 4028) .....	127
	Session Timer Method .....	127
	Enable 100rel (RFC 3262) .....	127
	Enable SSAF (SIP Source Address Filter) .....	128
	Enable c=0.0.0.0 Hold (RFC 2543) .....	128
	Transport Protocol .....	128
	TLS Mode .....	128
4.5.3	VoIP Settings .....	129
4.5.3.1	RTP .....	129
	RTP Packet Time .....	129
	Minimum RTP Port Number .....	129
	Maximum RTP Port Number .....	130
	Telephone-event Payload Type .....	130
4.5.3.2	Voice Quality Report .....	130
	Server Address .....	130
	Port .....	130
	Enable PUBLISH .....	130
	Alert Report Trigger .....	131
	Threshold MOS-LQ (Critical) .....	131
	Threshold MOS-LQ (Warning) .....	131
	Threshold Delay (Critical) .....	131
	Threshold Delay (Warning) .....	132
4.5.4	VoIP Settings [Line 1]–[Line 6] .....	132
4.5.4.1	Basic .....	132
	G.722 (Enable) .....	132
	G.722 (Priority) .....	132
	PCMA (Enable) .....	133
	PCMA (Priority) .....	133
	G.729A (Enable) .....	133
	G.729A (Priority) .....	133
	PCMU (Enable) .....	133
	PCMU (Priority) .....	134
	DTMF Type .....	134
4.5.4.2	Advanced .....	134
	RTP Packet QoS (DSCP) .....	134
	RTCP Packet QoS (DSCP) .....	134
	Enable RTCP .....	135
	Enable RTCP-XR .....	135
	RTCP&RTCP-XR Interval .....	135
	SRTP Mode .....	135
	Enable Mixed SRTP & RTP by Conference .....	136
	Enable Mixed SRTP & RTP by Transfer .....	136
<b>4.6</b>	<b>Telephone .....</b>	<b>136</b>
4.6.1	Call Control .....	137
4.6.1.1	Call Control .....	137
	Send SUBSCRIBE to Voice Mail Server .....	137
	Conference Server URI .....	138



	First-digit Timeout .....	138
	Inter-digit Timeout .....	138
	Timer for Dial Plan .....	138
	Enable # Key as delimiter .....	138
	International Call Prefix .....	139
	Country Calling Code .....	139
	National Access Code .....	139
	Default Line for Outgoing .....	139
	Call Park Number .....	140
	Enable Call Park Key .....	140
	Park Retrieve Number .....	140
	Park Retrieve Soft Key .....	140
	Directed Call Pickup .....	141
4.6.1.2	Emergency Call Phone Numbers .....	141
	1–5 .....	141
4.6.1.3	Call Rejection Phone Numbers .....	141
	1–30 .....	141
4.6.2	Call Control [Line 1]–[Line 6] .....	142
4.6.2.1	Call Features .....	142
	Display Name .....	142
	Voice Mail Access Number .....	142
	Enable Anonymous Call .....	143
	Enable Block Anonymous Call .....	143
	Enable Do Not Disturb .....	143
	Enable Call Waiting .....	143
	Enable Call Forwarding Always .....	144
	Forwarding Number (Always) .....	144
	Enable Call Forwarding Busy .....	144
	Forwarding Number (Busy) .....	144
	Enable Call Forwarding No Answer .....	144
	Forwarding Number (No Answer) .....	145
	Ring Counts (No Answer) .....	145
	Enable Shared Call .....	145
	Enable Key Synchronization (Enable Key Synchronisation) .....	145
	Enable Call Park Notification .....	146
	Enable Click to Call .....	146
	MoH Server URI .....	146
	Resource List URI .....	146
4.6.2.2	Dial Plan .....	147
	Dial Plan (max 1000 columns) .....	147
	Call Even If Dial Plan Does Not Match .....	147
4.6.3	Hotline Settings .....	147
4.6.3.1	Hotline .....	148
	Enable .....	148
	Hotline Number .....	148
	Hotline Delay .....	148
4.6.4	Flexible Key Settings (No. 1–24) .....	148
4.6.4.1	Flexible Key Settings .....	149
	Type .....	149
	Parameter .....	149
	Label Name .....	149
4.6.5	Tone Settings .....	150
4.6.5.1	Dial Tone .....	150
	Tone Frequencies .....	150
	Tone Timings .....	151

## Table of Contents

---

4.6.5.2	Busy Tone .....	151
	Tone Frequencies .....	151
	Tone Timings .....	151
4.6.5.3	Ringing Tone .....	152
	Tone Frequencies .....	152
	Tone Timings .....	152
4.6.5.4	Stutter Tone .....	152
	Tone Frequencies .....	152
	Tone Timings .....	153
4.6.5.5	Reorder Tone .....	153
	Tone Frequencies .....	153
	Tone Timings .....	153
4.6.6	Import Phonebook .....	154
4.6.6.1	Import Phonebook .....	154
	File Name .....	154
4.6.7	Export Phonebook .....	155
4.6.7.1	Export Phonebook .....	155
	Export Phonebook .....	155
4.6.8	DSS Console .....	156
4.6.8.1	DSS 1-5 Key (No. 1–200) .....	156
	Type .....	156
	Parameter .....	157
	Label Name .....	157
<b>4.7</b>	<b>Maintenance .....</b>	<b>157</b>
4.7.1	Provisioning Maintenance .....	158
4.7.1.1	Provisioning Maintenance .....	158
	Standard File URL .....	158
	Product File URL .....	158
	Master File URL .....	158
	Cyclic Auto Resync .....	159
	Resync Interval .....	159
	Time Resync .....	159
	Header Value for Resync Event .....	159
4.7.2	Firmware Maintenance .....	160
4.7.2.1	Firmware Maintenance .....	160
	Enable Firmware Update .....	160
	Firmware File URL .....	160
4.7.3	Upgrade Firmware .....	161
4.7.3.1	Upgrade Firmware .....	161
	File Name .....	161
4.7.4	Export Logging File .....	161
4.7.4.1	Export Logging File .....	162
	Logging File Type .....	162
4.7.5	Reset to Defaults .....	162
4.7.6	Restart .....	162
<b>5</b>	<b>Configuration File Programming .....</b>	<b>165</b>
<b>5.1</b>	<b>Configuration File Parameter List .....</b>	<b>166</b>
<b>5.2</b>	<b>General Information on the Configuration Files .....</b>	<b>184</b>
5.2.1	Configuration File Parameters .....	184
5.2.2	Characters Available for String Values .....	185
<b>5.3</b>	<b>System Settings .....</b>	<b>185</b>
5.3.1	System Settings .....	185
	FACTORY_RESET_ENABLE .....	185
5.3.2	Basic Network Settings .....	186

	IP_ADDR_MODE .....	186
	CONNECTION_TYPE .....	186
	STATIC_IP_ADDRESS .....	186
	STATIC_SUBNET .....	186
	STATIC_GATEWAY .....	187
	USER_DNS1_ADDR .....	187
	USER_DNS2_ADDR .....	188
	DHCP_DNS_ENABLE .....	188
	DHCP_HOST_NAME .....	188
	DHCP_VENDOR_CLASS .....	188
	CONNECTION_TYPE_IPV6 .....	189
	STATIC_IP_ADDRESS_IPV6 .....	189
	PREFIX_IPV6 .....	189
	STATIC_GATEWAY_IPV6 .....	189
	USER_DNS1_ADDR_IPV6 .....	190
	USER_DNS2_ADDR_IPV6 .....	190
	DHCP_DNS_ENABLE_IPV6 .....	190
5.3.3	Ethernet Port Settings .....	190
	PHY_MODE_LAN .....	190
	PHY_MODE_PC .....	191
	VLAN_ENABLE .....	191
	VLAN_ID_IP_PHONE .....	191
	VLAN_PRI_IP_PHONE .....	192
	VLAN_ID_PC .....	192
	VLAN_PRI_PC .....	192
	LLDP_ENABLE .....	192
	LLDP_INTERVAL .....	193
	LLDP_VLAN_ID_PC .....	193
	LLDP_VLAN_PRI_PC .....	193
5.3.4	Pre-Provisioning Settings .....	193
	SIPPNP_PROV_ENABLE .....	193
	OPTION66_ENABLE .....	194
	OPTION159_PROV_ENABLE .....	194
	OPTION160_PROV_ENABLE .....	194
	DHCPV6_OPTION17_PROV_ENABLE .....	194
5.3.5	Provisioning Settings .....	195
	CFG_STANDARD_FILE_PATH .....	195
	CFG_PRODUCT_FILE_PATH .....	195
	CFG_MASTER_FILE_PATH .....	195
	CFG_CYCLIC .....	195
	CFG_CYCLIC_INTVL .....	196
	CFG_RESYNC_TIME .....	196
	CFG_RTRY_INTVL .....	196
	CFG_RESYNC_FROM_SIP .....	196
	CFG_RESYNC_ACTION .....	197
	CFG_FILE_KEY2 .....	197
	CFG_FILE_KEY3 .....	197
	CFG_FILE_KEY_LENGTH .....	198
	CFG_ROOT_CERTIFICATE_PATH .....	198
	CFG_CLIENT_CERT_PATH .....	198
	CFG_PKEY_PATH .....	198
	HTTP_SSL_VERIFY .....	199
5.3.6	Firmware Update Settings .....	199
	FIRM_UPGRADE_ENABLE .....	199
	FIRM_FILE_PATH .....	199

## Table of Contents

---

	FIRM_VERSION .....	200
5.3.7	HTTP Settings .....	200
	HTTP_VER .....	200
	HTTP_USER_AGENT .....	200
	HTTP_AUTH_ID .....	201
	HTTP_AUTH_PASS .....	201
	HTTP_PROXY_ENABLE .....	201
	HTTP_PROXY_ADDR .....	202
	HTTP_PROXY_PORT .....	202
	HTTP_PROXY_ID .....	202
	HTTP_PROXY_PASS .....	202
5.3.8	HTTPD/WEB Settings .....	202
	HTTPD_LISTEN_PORT .....	202
	HTTPD_PORTOPEN_AUTO .....	203
	HTTPD_PORTCLOSE_TM .....	203
	USER_ID .....	203
	USER_PASS .....	203
	ADMIN_ID .....	204
	ADMIN_PASS .....	204
5.3.9	TR-069 Settings .....	204
	ACS_URL .....	204
	ACS_USER_ID .....	205
	ACS_PASS .....	205
	PERIODIC_INFORM_ENABLE .....	205
	PERIODIC_INFORM_INTERVAL .....	205
	PERIODIC_INFORM_TIME .....	206
	CON_REQ_USER_ID .....	206
	CON_REQ_PASS .....	206
	ANNEX_G_STUN_ENABLE .....	207
	ANNEX_G_STUN_SERV_ADDR .....	207
	ANNEX_G_STUN_SERV_PORT .....	207
	ANNEX_G_STUN_USER_ID .....	208
	ANNEX_G_STUN_PASS .....	208
	ANNEX_G_STUN_MAX_KEEP_ALIVE .....	208
	ANNEX_G_STUN_MIN_KEEP_ALIVE .....	208
	UDP_CON_REQ_ADDR_NOTIFY_LIMIT .....	209
	DEVICE_PROVISIONING_CODE .....	209
5.3.10	XML Settings .....	209
	XMLAPP_ENABLE .....	209
	XMLAPP_USERID .....	210
	XMLAPP_USERPASS .....	210
	XMLAPP_LDAP_URL .....	210
	XMLAPP_LDAP_USERID .....	210
	XMLAPP_LDAP_USERPASS .....	210
	XMLAPP_NPB_SEARCH_TIMER .....	211
	XMLAPP_LDAP_MAXRECORD .....	211
	XML_HTTPD_PORT .....	211
	XML_ERROR_INFORMATION .....	211
	XMLAPP_START_URL .....	212
	XMLAPP_INITIAL_URL .....	212
	XMLAPP_INCOMING_URL .....	212
	XMLAPP_TALKING_URL .....	212
	XMLAPP_MAKECALL_URL .....	213
	XMLAPP_CALLLOG_URL .....	213
	XMLAPP_IDLING_URL .....	213

	XML_INITIATE_KEY_SOFT1 .....	213
	XML_INITIATE_KEY_SOFT2 .....	214
	XML_INITIATE_KEY_SOFT3 .....	214
	XMLAPP_FFKEY_ENABLE .....	214
5.3.11	XSI Settings .....	214
	XSI_ENABLE .....	214
	XSI_SERVER .....	215
	XSI_SERVER_TYPE .....	215
	XSI_SERVER_PORT .....	215
	XSI_USERID_n .....	215
	XSI_PASSWORD_n .....	216
	XSI_PHONEBOOK_ENABLE_n .....	216
	XSI_PHONEBOOK_TYPE_n .....	216
	XSI_CALLLOG_ENABLE_n .....	216
5.3.12	XMPP (UC-ONE) Settings .....	217
	UC_ENABLE .....	217
	UC_USERID .....	217
	UC_PASSWORD .....	217
	XMPP_SERVER .....	217
	XMPP_PORT .....	218
	XMPP_TLS_VERIFY .....	218
	XMPP_ROOT_CERT_PATH .....	218
	XMPP_CLIENT_CERT_PATH .....	218
	XMPP_PKEY_PATH .....	219
5.3.13	LDAP Settings .....	219
	LDAP_ENABLE .....	219
	LDAP_DNSSRV_ENABLE .....	219
	LDAP_SERVER .....	219
	LDAP_SERVER_PORT .....	220
	LDAP_MAXRECORD .....	220
	LDAP_NUMB_SEARCH_TIMER .....	220
	LDAP_NAME_SEARCH_TIMER .....	220
	LDAP_USERID .....	220
	LDAP_PASSWORD .....	221
	LDAP_NAME_FILTER .....	221
	LDAP_NUMB_FILTER .....	221
	LDAP_NAME_ATTRIBUTE .....	221
	LDAP_NUMB_ATTRIBUTE .....	222
	LDAP_BASEDN .....	222
	LDAP_SSL_VERIFY .....	222
	LDAP_ROOT_CERT_PATH .....	222
	LDAP_CLIENT_CERT_PATH .....	222
	LDAP_PKEY_PATH .....	223
5.3.14	Call Center Settings .....	223
	CALL_CENTER_ENABLE_n .....	223
	ACD_ENABLE_n .....	223
	ACD_LOGIN_CONDITION_n .....	223
	ACD_LOGOUT_CONDITION_n .....	224
	CC_DISPOSITION_CODE_ENABLE_n .....	224
	CC_CUSTOMER_ORG_TRACE_ENABLE_n .....	224
	CC_HOTELING_EVENT_n .....	225
	HOTELING_USERID_n .....	225
	HOTELING_PASSWORD_n .....	225
	CC_STATUS_EVENT_ENABLE_n .....	225
5.3.15	SNMP Settings .....	226

	SNMP_ENABLE .....	226
	SNMP_TRUST_IP .....	226
	SNMP_TRUST_PORT .....	226
	SNMP_RO_COMMUNITY_STRING .....	226
	SNMP_SECURITY_TYPE .....	227
	SNMP_SECURITY_USER .....	227
	SNMP_AUTH_TYPE .....	227
	SNMP_AUTH_PASSWORD .....	227
	SNMP_ENCRYPT_TYPE .....	227
	SNMP_ENCRYPT_PASSWORD .....	228
5.3.16	Multicast Paging Settings .....	228
	MPAGE_ADDRm .....	228
	MPAGE_IPV6_ADDRm .....	228
	MPAGE_PORTm .....	228
	MPAGE_PRIORITYm .....	229
	MPAGE_LABELm .....	229
	MPAGE_SEND_ENABLEm .....	229
	MPAGE_CODEC .....	230
	MPAGE_SP_VOL_EMERGENCY .....	230
	MPAGE_SP_VOL_PRIORITY .....	230
	MPAGE_DND_ENABLE .....	230
	MPAGE_FUNCKEY_ENABLE .....	231
5.3.17	NTP Settings .....	231
	NTP_ADDR .....	231
	TIME_SYNC_INTVL .....	231
	TIME_QUERY_INTVL .....	231
5.3.18	Time Settings .....	232
	LOCAL_TIME_ZONE_POSIX .....	232
	TIME_ZONE .....	232
	DST_ENABLE .....	233
	DST_OFFSET .....	233
	DST_START_MONTH .....	234
	DST_START_ORDINAL_DAY .....	234
	DST_START_DAY_OF_WEEK .....	234
	DST_START_TIME .....	235
	DST_STOP_MONTH .....	235
	DST_STOP_ORDINAL_DAY .....	236
	DST_STOP_DAY_OF_WEEK .....	236
	DST_STOP_TIME .....	236
5.3.19	Network Phonebook (Common) .....	237
	ONLY_NPB_ENABLE .....	237
	NETWORK_SEARCH_ENABLE .....	237
5.3.20	Language Settings .....	237
	AVAILABLE_LANGUAGE .....	237
	DEFAULT_LANGUAGE .....	238
	LANGUAGE_PATHx .....	238
	LANGUAGE_VERx .....	238
	AVAILABLE_LANGUAGE_WEB .....	238
	WEB_LANGUAGE .....	238
	WEB_LANGUAGE_PATHx .....	239
	WEB_LANGUAGE_VERx .....	239
5.3.21	NAT Settings .....	239
	STUN_SERV_ADDR .....	239
	STUN_SERV_PORT .....	239
	STUN_2NDSERV_ADDR .....	240

	STUN_2NDSERV_PORT .....	240
	STUN_INTVL .....	240
	SIP_ADD_RPORT .....	240
	PORT_PUNCH_INTVL .....	241
	RTP_PORT_PUNCH_INTVL .....	241
5.3.22	SIP Settings .....	241
	SIP_USER_AGENT .....	241
	PHONE_NUMBER_n .....	242
	SIP_URI_n .....	242
	SIP_RGSTR_ADDR_n .....	242
	SIP_RGSTR_PORT_n .....	243
	SIP_PRXY_ADDR_n .....	243
	SIP_PRXY_PORT_n .....	243
	SIP_PRSNC_ADDR_n .....	243
	SIP_PRSNC_PORT_n .....	244
	SIP_OUTPROXY_ADDR_n .....	244
	SIP_OUTPROXY_PORT_n .....	244
	SIP_SVCDOMAIN_n .....	244
	SIP_AUTHID_n .....	245
	SIP_PASS_n .....	245
	SIP_SRC_PORT_n .....	245
	DSCP_SIP_n .....	246
	SIP_DNSSRV_ENA_n .....	246
	SIP_UDP_SRV_PREFIX_n .....	246
	SIP_TCP_SRV_PREFIX_n .....	247
	REG_EXPIRE_TIME_n .....	247
	REG_INTERVAL_RATE_n .....	248
	REG_RTX_INTVL_n .....	248
	USE_DEL_REG_OPEN_n .....	248
	USE_DEL_REG_CLOSE_n .....	248
	SIP_SESSION_TIME_n .....	249
	SIP_SESSION_METHOD_n .....	249
	SIP_TIMER_T1_n .....	249
	SIP_TIMER_T2_n .....	250
	SIP_TIMER_T4_n .....	250
	SIP_TIMER_B_n .....	250
	SIP_TIMER_D_n .....	251
	SIP_TIMER_F_n .....	251
	SIP_TIMER_H_n .....	251
	SIP_TIMER_J_n .....	251
	SIP_100REL_ENABLE_n .....	252
	SIP_18X_RTX_INTVL_n .....	252
	SIP_SUBS_EXPIRE_n .....	252
	SUB_INTERVAL_RATE_n .....	253
	SUB_RTX_INTVL_n .....	253
	SIP_P_PREFERRED_ID_n .....	253
	SIP_PRIVACY_n .....	253
	ADD_USER_PHONE_n .....	254
	SIP_ANM_DISPNAME_n .....	254
	SIP_ANM_USERNAME_n .....	254
	SIP_ANM_HOSTNAME_n .....	255
	SIP_DETECT_SSAF_n .....	255
	SIP_RCV_DET_HEADER_n .....	255
	SIP_RCV_DET_REQUIRE_n .....	256
	SIP_CONTACT_ON_ACK_n .....	256

	VOICE_MESSAGE_AVAILABLE .....	256
	SIP_INVITE_EXPIRE_n .....	257
	SIP_FOVR_NORSP_n .....	257
	SIP_FOVR_MAX_n .....	257
	SIP_FOVR_MODE_n .....	257
	SIP_FOVR_DURATION_n .....	258
	SIP_ADD_ROUTE_n .....	258
	SIP_REQUIR_PORT_n .....	258
	ADD_EXPIRES_HEADER_n .....	259
	ADD_TRANSPORT_UDP_n .....	259
	SIP_ADD_DIVERSION_n .....	259
	TRANSFER_RECALL_TIM .....	260
	SIGNAL_COMPRESSION_n .....	260
	MAX_BREADTH_n .....	260
	MUTIPART_BOUNDARY_DELIMITER_n .....	260
	RFC5626_KEEPALIVE_ENABLE_n .....	261
	RINGTONES_183_180_ENABLE_n .....	261
	SIP_403_REG_SUB_RTX_n .....	261
	SIP_FORK_MODE_n .....	262
	AKA_AUTHENTICATION_ENABLE_n .....	262
	RFC2543_HOLD_ENABLE_n .....	262
	SIP_HOLD_ATTRIBUTE_n .....	262
	SDP_USER_ID_n .....	263
	TELEVENT_PAYLOAD .....	263
	HOLD_SOUND_PATH_n .....	263
	KEEP_EARLYMEDIA_n .....	264
	RFC3327_SUPPORT_PATH .....	264
	RFC4244_SUPPORT_HISTORY .....	264
	RFC3319_SUPPORT_JOIN .....	264
	RFC6947_DRAFT08_ALTC .....	265
	RFC5627_SUPPORT_GRUU_n .....	265
	ESCAPECODE_CONVERSION .....	265
5.3.23	SIP-TLS Settings .....	265
	SIP_TRANSPORT_n .....	265
	SIP_TLS_MODE_n .....	266
	SIP_TLS_RECONNECT_n .....	266
	SIP_TLS_SRV_PREFIX_n .....	266
	SIP_TLS_VERIFY_n .....	267
	SIP_TLS_ROOT_CERT_PATH .....	267
	SIP_TLS_CLIENT_CERT_PATH .....	267
	SIP_TLS_PKEY_PATH .....	267
5.3.24	CODEC Settings .....	267
	CODEC_G729_PARAM_n .....	267
	CODEC_ENABLEx_n .....	268
	CODEC_PRIORITYx_n .....	268
5.3.25	DTMF Settings .....	269
	DTMF_METHOD_n .....	269
	OUTBANDDTMF_VOL .....	269
	INBANDDTMF_VOL .....	270
	DTMF_SIGNAL_LEN .....	270
	DTMF_INTDIGIT_TIM .....	270
5.3.26	RTP/RTCP/RTCP-XR Settings .....	270
	DSCP_RTP_n .....	270
	DSCP_RTCP_n .....	270
	MAX_DELAY_n .....	271



	MIN_DELAY_n .....	271
	NOM_DELAY_n .....	271
	RTP_PORT_MIN .....	272
	RTP_PORT_MAX .....	272
	RTP_PTIME .....	272
	RTP_TARGET_CHECK .....	272
	RTCP_ENABLE_n .....	273
	RTCP_INTVL_n .....	273
	RTCP_SEND_BY_SDP_n .....	273
	RTP_CLOSE_ENABLE_n .....	274
	RTCPXR_ENABLE_n .....	274
5.3.27	SRTP Settings .....	274
	SRTP_CONNECT_MODE_n .....	274
	SRTP_MIX_CONFERENCE_ENABLE_n .....	275
	SRTP_MIX_TRANSFER_ENABLE_n .....	275
	SRTP_HELD_CALL_RTP_ENABLE .....	275
5.3.28	VQ Report by PUBLISH .....	275
	VQREPORT_COLLECTOR_ADDRESS .....	275
	VQREPORT_COLLECTOR_PORT .....	276
	VQREPORT_SEND .....	276
	ALERT_REPORT_TRIGGER .....	276
	ALERT_REPORT_MOSQ_CRITICAL .....	276
	ALERT_REPORT_MOSQ_WARNING .....	277
	ALERT_REPORT_DELAY_CRITICAL .....	277
	ALERT_REPORT_DELAY_WARNING .....	277
	VQREPORT_SIGNAL_COMPRESSION .....	277
5.3.29	uaCSTA Settings .....	278
	UACSTA_ENABLE_n .....	278
	UACSTA_UNIQUE_ID .....	278
	CSTA_PORT .....	278
	CSTA_PRXY_ADDR .....	278
	CSTA_PRXY_PORT .....	278
	CSTA_RGSTR_ADDR .....	279
	CSTA_RGSTR_PORT .....	279
	CSTA_REG_EXPIRE_TIME .....	279
	CSTA_TRANSPORT .....	279
	CSTA_RGSTR_AUTHID .....	279
	CSTA_RGSTR_PASS .....	280
5.3.30	Telephone Settings .....	280
	POWER_ON_DISPLAY_LOGO_PATH .....	280
	FIRSTDIGIT_TIM .....	280
	INTDIGIT_TIM .....	280
	POUND_KEY_DELIMITER_ENABLE .....	281
	RINGTONE_SETTING_n .....	281
	DISPLAY_NAME_REPLACE .....	281
	NUMBER_MATCHING_LOWER_DIGIT .....	281
	NUMBER_MATCHING_UPPER_DIGIT .....	282
	FLASH_RECALL_TERMINATE .....	282
	FLASHHOOK_CONTENT_TYPE .....	282
	NUM_PLAN_PARKING .....	282
	CALLPARK_KEY_ENABLE .....	282
	NUM_PLAN_PARK_RETRIEVING .....	283
	IDLE_SOFT_KEY_PARK_RETRIEVING .....	283
	HOLD_RECALL_TIM .....	283
	HOLD_TRANSFER_OPERATION .....	284

	ONHOOK_TRANSFER_ENABLE .....	284
	ONHOOK_HOLD_TRNS_ENABLE .....	284
	BLIND_TRANSFER_ENABLE .....	284
	SYS_LOCK_ENABLE .....	284
	SYS_LOCK_PASSWORD .....	285
	PAUSE_INPUT_ENABLE .....	285
	NUM_PLAN_PICKUP_DIRECT .....	285
5.3.31	Flexible Key Settings .....	285
	FLEX_BUTTON_FACILITY_ACTx .....	285
	FLEX_BUTTON_FACILITY_ARGx .....	286
	FLEX_BUTTON_LABELx .....	286
	FLEX_BUTTON_QUICK_DIALx .....	287
	LONG_PRESS_KEY_SETTING_ENABLE .....	287
5.3.32	DSS Key Settings .....	287
	DSS_BUTTON_FACILITY_ACTx .....	287
	DSS_BUTTON_FACILITY_ARGx .....	288
	DSS_BUTTON_LABELx .....	288
	DSS_BUTTON_QUICK_DIALx .....	289
5.3.33	Tone Settings .....	289
	OUTSIDE_DIAL_TONE_FRQ .....	289
	OUTSIDE_DIAL_TONE_GAIN .....	289
	OUTSIDE_DIAL_TONE_RPT .....	289
	OUTSIDE_DIAL_TONE_TIMING .....	290
	CONFIRMATION_TONE5_FRQ .....	290
	CONFIRMATION_TONE5_GAIN .....	290
	REORDER_TONE_ENABLE .....	290
	TONE_LEN_DISCONNECT .....	291
	DIAL_TONE1_FRQ .....	291
	DIAL_TONE1_GAIN .....	291
	DIAL_TONE1_RPT .....	291
	DIAL_TONE1_TIMING .....	291
	DIAL_TONE2_FRQ .....	292
	DIAL_TONE2_GAIN .....	292
	DIAL_TONE2_RPT .....	292
	DIAL_TONE2_TIMING .....	292
	DIAL_TONE4_FRQ .....	293
	DIAL_TONE4_GAIN .....	293
	DIAL_TONE4_RPT .....	293
	DIAL_TONE4_TIMING .....	293
	BUSY_TONE_FRQ .....	294
	BUSY_TONE_GAIN .....	294
	BUSY_TONE_RPT .....	294
	BUSY_TONE_TIMING .....	295
	REORDER_TONE_FRQ .....	295
	REORDER_TONE_GAIN .....	295
	REORDER_TONE_RPT .....	295
	REORDER_TONE_TIMING .....	296
	RINGBACK_TONE_FRQ .....	296
	RINGBACK_TONE_GAIN .....	296
	RINGBACK_TONE_RPT .....	296
	RINGBACK_TONE_TIMING .....	297
	HOLD_ALARM_FRQ .....	297
	HOLD_ALARM_GAIN .....	297
	CW_TONE1_FRQ .....	297
	CW_TONE1_GAIN .....	298

	HOLD_TONE_FRQ .....	298
	HOLD_TONE_GAIN .....	298
	BELL_CORE_PATTERN1_TIMING .....	298
	BELL_CORE_PATTERN2_TIMING .....	298
	BELL_CORE_PATTERN3_TIMING .....	299
	BELL_CORE_PATTERN4_TIMING .....	299
	BELL_CORE_PATTERN5_TIMING .....	299
5.3.34	Call Control Settings .....	300
	DEFAULT_LINE_SELECT .....	300
	ANONYMOUS_CALL_ENABLE_n .....	300
	BLOCK_ANONYMOUS_CALL_ENABLE_n .....	300
	HOTLINE_ENABLE .....	301
	HOTLINE_NUMBER .....	301
	HOTLINE_TIM .....	301
	DISPLAY_NAME_n .....	301
	VM_SUBSCRIBE_ENABLE .....	302
	VM_NUMBER_n .....	302
	DIAL_PLAN_n .....	302
	DIAL_PLAN_NOT_MATCH_ENABLE_n .....	303
	MACRODIGIT_TIM .....	303
	INTERNATIONAL_ACCESS_CODE .....	303
	COUNTRY_CALLING_CODE .....	304
	NATIONAL_ACCESS_CODE .....	304
	IDLE_SOFT_KEY_A .....	304
	IDLE_SOFT_KEY_B .....	305
	IDLE_SOFT_KEY_C .....	305
	ADMIN_ABILITY_ENABLE .....	305
	EMERGENCY_CALLx .....	306
	CALL_REJECTIONx .....	306
	CLICKTO_ENABLE_n .....	306
	CALLPARK_NOTIFICATION_ENABLE_n .....	306
	SHARED_CALL_ENABLE_n .....	307
	FWD_DND_SYNCHRO_ENABLE_n .....	307
	MOH_SERVER_URI_n .....	308
	FWD_DND_CONTROL_ENABLE .....	308
	FWD_DND_SYNCHRO_MODE .....	308
	HOLD_AND_CALL_ENABLE .....	308
	AUTO_CALL_HOLD .....	309
	SIP_RESPONSE_CODE_DND .....	309
	SIP_RESPONSE_CODE_CALL_REJECT .....	309
	CW_ENABLE_n .....	309
	RETURN_VOL_SET_DEFAULT_ENABLE .....	309
	CONFERENCE_SERVER_URI .....	310
	RESOURCELIST_URI_n .....	310
5.3.35	Logging Settings .....	310
	SYSLOG_ADDR .....	310
	SYSLOG_PORT .....	310
	LOGGING_LEVEL_DNS .....	311
	LOGGING_LEVEL_NW1 .....	311
	LOGGING_LEVEL_FILE .....	311
	LOGGING_LEVEL_SIP .....	311
	LOGGING_LEVEL_TR069 .....	311
	LOGGING_LEVEL_STUN .....	312
	LOGGING_LEVEL_NW2 .....	312
	LOGGING_LEVEL_CFGPARSE .....	312

<b>6</b>	<b>Useful Telephone Functions .....</b>	<b>313</b>
<b>6.1</b>	<b>Phonebook Import and Export .....</b>	<b>314</b>
6.1.1	Import/Export Operation .....	316
6.1.2	Editing with Microsoft Excel .....	317
6.1.3	Exporting Data from Microsoft Outlook .....	319
<b>6.2</b>	<b>Dial Plan .....</b>	<b>320</b>
6.2.1	Dial Plan Settings .....	320
<b>6.3</b>	<b>Flexible Keys .....</b>	<b>322</b>
6.3.1	Settings using Web User Interface Programming .....	325
6.3.2	Settings using Configuration File Programming .....	327
<b>6.4</b>	<b>Broadsoft XSI (Xtended Services Interface) .....</b>	<b>330</b>
6.4.1	Outline .....	330
6.4.2	XSI Service Settings .....	331
<b>6.5</b>	<b>BroadCloud (Presence) .....</b>	<b>332</b>
6.5.1	Outline .....	332
6.5.2	BroadCloud (Presence) Function Settings .....	332
<b>7</b>	<b>Firmware Update .....</b>	<b>333</b>
<b>7.1</b>	<b>Firmware Server Setup .....</b>	<b>334</b>
<b>7.2</b>	<b>Firmware Update Settings .....</b>	<b>334</b>
<b>7.3</b>	<b>Executing Firmware Update .....</b>	<b>334</b>
<b>7.4</b>	<b>Upgrade Firmware .....</b>	<b>336</b>
<b>8</b>	<b>Troubleshooting .....</b>	<b>337</b>
<b>8.1</b>	<b>Troubleshooting .....</b>	<b>338</b>

---

# **Section 1**

## ***Initial Setup***

*This section provides an overview of the setup procedures for the unit.*

## 1.1 Setup

---

### 1.1.1 Factory Defaults

Many of the settings for this unit have been configured before the unit ships.

Where possible, these settings are configured with the optimum or most common values for the setting. For example, the port number of the SIP (Session Initiation Protocol) server is set to "5060".

However, many of the settings, such as the address of the SIP server or the phone number, have not been pre-configured, and they must be modified depending on the usage environment. If the port number of the SIP server is not "5060", the value of this setting must be changed.

This unit thus will not function properly using only the factory default settings. The settings for each feature must be configured according to the environment in which the unit is used.

### 1.1.2 Language Selection for the Unit

You can change the language used on the LCD.

In addition, various settings can be configured by accessing the Web user interface from a PC on the same network (→ see **Section 4 Web User Interface Programming**). You can select the language for the Web user interface.

#### **Note**

- To select the display language for the unit, refer to the Operating Instructions on the Panasonic Web site (→ see **Introduction**).
- To select the display language for the Web user interface, see **4.4.1 Language Settings**.

### 1.1.3 Basic Network Setup

This section describes the basic network settings that you must configure before you can use the unit on your network.

You must configure the following network settings:

- IP Address Mode (IPv4 or IPv6 or IPv4/IPv6 Dual) settings
- TCP/IP settings (DHCP / RA for IPv6 / static IP)
- DNS server settings

For details about basic network settings via the Web user interface, see **4.3.1 Basic Network Settings**.

### TCP/IP Settings for IPv4 (DHCP or Static IP Address Assignment)

---

A unique IP address must be assigned to the unit so that it can communicate on the network. How you assign an IP address depends on your network environment. This unit supports the following 2 methods for assigning an IP address:

#### **Obtaining an IP Address Automatically from a DHCP Server**

You can configure the unit to automatically obtain its IP address when it starts up from a DHCP server running on your network. With this method, the system can efficiently manage a limited number of IP addresses. Note that the IP address assigned to the unit may vary every time the unit is started up.

For details about the DHCP server, consult your network administrator.

### Using a Static IP Address Specified by Your Network Administrator

If IP addresses for network devices are specified individually by your network administrator, you will need to manually configure settings such as the IP address, subnet mask, default gateway, and DNS servers. For details about the required network settings, consult your network administrator.

## TCP/IP Settings for IPv6 (DHCP, RA or Static IP Address Assignment)

A unique IP address must be assigned to the unit so that it can communicate on the network. How you assign an IP address depends on your network environment. This unit supports the following 3 methods for assigning an IP address:

### Obtaining an IP Address Automatically from a DHCP Server

You can configure the unit to automatically obtain its IP address when it starts up from a DHCP server running on your network. With this method, the system can efficiently manage a limited number of IP addresses. Note that the IP address assigned to the unit may vary every time the unit is started up. For details about the DHCP server, consult your network administrator.

### Using a Static IP Address Specified by Your Network Administrator

If IP addresses for network devices are specified individually by your network administrator, you will need to manually configure settings such as the IP address, Prefix, default gateway, and DNS servers. For details about the required network settings, consult your network administrator.

### Using a RA (Router Advertisement)

An IPv6 address can be assigned using Stateless Autoconfiguration. This enables the setting of addresses for only the router and the node without the need to manage information. For details about the required network settings, consult your network administrator.

## DNS Server Settings

You can configure the unit to use 2 DNS servers: a primary DNS server is DNS1 and a secondary DNS server is DNS2. The primary DNS1 server receives priority over the secondary DNS2 server. If the primary DNS1 server returns no reply, the secondary DNS2 server will be used.

For details about configuring the DNS server settings using the unit, or using the Web user interface, see **Configuring the Network Settings of the Unit** in this section.

### DNS Priority Using Configuration File

The setting for DNS server(s) may be configured using the configuration files by your phone system dealer/service provider (→ see "DHCP\_DNS\_ENABLE", "DHCP\_DNS\_ENABLE\_IPV6", "USER\_DNS1\_ADDR"/"USER\_DNS2\_ADDR" (for IPv4) and "USER\_DNS1\_ADDR\_IPV6"/"USER\_DNS2\_ADDR\_IPV6" (for IPv6) in **5.3.2 Basic Network Settings**).

- When "DHCP\_DNS\_ENABLE" (for IPv4) is set to "Y", you can manually configure the DNS server address by using "USER\_DNS1\_ADDR" or ("USER\_DNS1\_ADDR" and "USER\_DNS2\_ADDR"). When set to "N", the DNS server address will be automatically transmitted. This setting is available only when ("IP\_ADDR\_MODE"="0" or "IP\_ADDR\_MODE"="2") and "CONNECTION\_TYPE"="1".
- When "DHCP\_DNS\_ENABLE\_IPV6" (for IPv6) is set to "Y", you can manually configure the DNS server address by using "USER\_DNS1\_ADDR\_IPV6" or ("USER\_DNS1\_ADDR\_IPV6" and "USER\_DNS2\_ADDR\_IPV6"). When set to "N", the DNS server address will be automatically transmitted. This setting is available only when ("IP\_ADDR\_MODE"="1" or "IP\_ADDR\_MODE"="2") and "CONNECTION\_TYPE\_IPV6"="1".

## Configuring the Network Settings of the Unit

---

The following procedures explain how to change the network settings via the unit.

For details about the individual network settings that can be configured via the unit, refer to the Operating Instructions on the Panasonic Web site (→ see **Introduction**).

For details about configuring network settings via the Web user interface, see **4.3.1 Basic Network Settings**.

### To configure IP Mode (IPv4, IPv6, IPv4&IPv6)

1. **MENU**
2. **[▲]/[▼]**: "System Settings" → **OK**
3. **[▲]/[▼]**: "Network Settings" → **OK**
4. **[▲]/[▼]**: "IP Mode Select" → **OK**
5. **[▲]/[▼]**: "IPv4" / "IPv6" / "IPv4&IPv6" → **OK**
  - The initial value is "IPv4".

## Configuring the Network Settings Using IPv4

---

### To configure network settings automatically

1. **MENU**
2. **[▲]/[▼]**: "System Settings" → **OK**
3. **[▲]/[▼]**: "Network Settings" → **OK**
4. **[▲]/[▼]**: "IPv4 Settings" → **OK**
5. **[▲]/[▼]**: "DHCP" → **OK**
6. **[▲]/[▼]**: "Auto" → **OK**
  - Select "Manual" to enter the addresses for DNS1 (primary DNS server) and, if necessary, DNS2 (secondary DNS server) manually, and then press **OK**.

### To configure network settings manually

1. **MENU**
2. **[▲]/[▼]**: "System Settings" → **OK**
3. **[▲]/[▼]**: "Network Settings" → **OK**
4. **[▲]/[▼]**: "IPv4 Settings" → **OK**
5. **[▲]/[▼]**: "Static" → **OK**
6. Enter the IP address, subnet mask, default gateway, DNS1 (primary DNS server), and, if necessary, DNS2 (secondary DNS server), and then press **OK**.

## Configuring the Network Settings Using IPv6

---

### To configure network settings automatically using DHCP

1. **MENU**
2. **[▲]/[▼]**: "System Settings" → **OK**
3. **[▲]/[▼]**: "Network Settings" → **OK**
4. **[▲]/[▼]**: "IPv6 Settings" → **OK**
5. **[▲]/[▼]**: "DHCP" → **OK**



6. [▲]/[▼]: "Auto" → **OK**
  - Select "Manual" to enter the addresses for DNS1 (primary DNS server) and, if necessary, DNS2 (secondary DNS server) manually, and then press **OK**.

#### To configure network settings automatically using RA

1. **MENU**
2. [▲]/[▼]: "System Settings" → **OK**
3. [▲]/[▼]: "Network Settings" → **OK**
4. [▲]/[▼]: "IPv6 Settings" → **OK**
5. [▲]/[▼]: "RA" → **OK**
6. Enter the addresses for DNS1 (primary DNS server) and, if necessary, DNS2 (secondary DNS server) manually, and then press **OK**.

#### To configure network settings manually

1. **MENU**
2. [▲]/[▼]: "System Settings" → **OK**
3. [▲]/[▼]: "Network Settings" → **OK**
4. [▲]/[▼]: "IPv6 Settings" → **OK**
5. [▲]/[▼]: "Static" → **OK**
6. Enter the IP address, Prefix (for IPv6), Default Gateway, DNS1 (primary DNS server), and, if necessary, DNS2 (secondary DNS server), and then press **OK**.

#### Note

- If your phone system dealer/service provider does not allow you these settings, you cannot change them even though the unit shows the setting menu. Contact your phone system dealer/service provider for further information.
- If you select "DHCP" for the connection mode, all the settings concerning static connection will be ignored, even if they have been specified.
- If you select "DHCP" for the connection mode and "Auto" for DNS, the DNS server settings (DNS1 and DNS2) will be ignored, even if they have been specified.

## 1.1.4 Overview of Programming

There are 3 types of programming, as shown in the table below:

Programming Type	Description	References
Phone user interface programming	Configuring the unit's settings directly from the unit.	→ 1.1.5 Phone User Interface Programming → Section 3 Phone User Interface Programming
Web user interface programming	Configuring the unit's settings by accessing the Web user interface from a PC connected to the same network.	→ 1.1.6 Web User Interface Programming → Section 4 Web User Interface Programming
Configuration file programming	Configuring the unit's settings beforehand by creating configuration files (pre-provisioning), and having the unit download the files from a server on the Internet and configure its own settings (provisioning).	→ Section 2 General Information on Provisioning → Section 5 Configuration File Programming

## 1.1.5 Phone User Interface Programming

You can change the settings directly from the unit.

For details about the operations, refer to the Operating Instructions on the Panasonic Web site (→ see **Introduction**).

For details about additional features available with direct commands, see **Section 3 Phone User Interface Programming**.

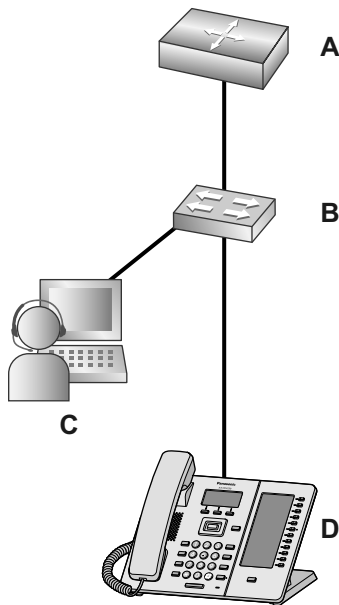
### 1.1.5.1 Changing the Language for Phone User Interface Programming

You can change the language used on the LCD. Because the language settings for the LCD of the unit are not synchronized, you must set the languages individually for the unit.

For details about changing the setting, refer to the Operating Instructions on the Panasonic Web site (→ see **Introduction**).

## 1.1.6 Web User Interface Programming

After connecting the unit to your network, you can configure the unit's settings by accessing the Web user interface from a PC connected to the same network. For details, see **Section 4 Web User Interface Programming**.



- A. Router
- B. Switching Hub
- C. PC
- D. KX-HDV230

### 1.1.6.1 Password for Web User Interface Programming

To program the unit via the Web user interface, a login account is required. There are 2 types of accounts, and each has different access privileges.

- **User:** User accounts are for use by end users. Users can change the settings that are specific to the unit.

- **Administrator:** Administrator accounts are for use by administrators to manage the system configuration. Administrators can change all the settings, including the network settings, in addition to the settings that can be changed from a User account.

A separate password is assigned to each account.

For details, see **Access Levels (IDs and Passwords)** in 1.1.6.3 **Before Accessing the Web User Interface**.

#### Notice

- You should manage the passwords carefully, and change them regularly.

## 1.1.6.2 Changing the Language for Web User Interface Programming

When accessing the unit via the Web user interface on a PC connected to the same network, various menus and settings are displayed. You can change the language used for displaying these setting items. Because the language setting for the Web user interface is not synchronized with those of the unit, you must set the languages for each independently.

For details, see 4.4.1 **Language Settings**.

## 1.1.6.3 Before Accessing the Web User Interface

### Recommended Environment

This unit supports the following specifications:

<b>HTTP Version</b>	HTTP/1.0 (RFC 1945), HTTP/1.1 (RFC 2616)
<b>Authentication Method</b>	Digest

The Web user interface will operate correctly in the following environments:

<b>Operating System</b>	Microsoft® Windows® 7 or Windows 8 operating system
<b>Web Browser</b>	Windows Internet Explorer® 7, Windows Internet Explorer 8, Windows Internet Explorer 9, Windows Internet Explorer 10, Windows Internet Explorer 11 web browser, Firefox® (32.0.3), Google® Chrome™ (37.0.2062.103)
<b>Language (recommended)</b>	English

### Opening/Closing the Web Port

To access the Web user interface, you must open the unit's Web port beforehand. For details, refer to the Operating Instructions on the Panasonic Web site (→ see **Introduction**).

#### Configuring Settings from the Unit

##### To open the unit's Web port

1. **MENU**
2. **[▲]/[▼]**: "Basic Settings" → **OK**
3. **[▲]/[▼]**: "Other Option" → **OK**
4. **[▲]/[▼]**: "Embedded Web" → **OK**
5. **[▲]/[▼]**: "On" for "Embedded Web" → **OK**

**To close the unit's Web port**

1. **MENU**
2. **[▲]/[▼]**: "Basic Settings" → **OK**
3. **[▲]/[▼]**: "Other Option" → **OK**
4. **[▲]/[▼]**: "Embedded Web" → **OK**
5. **[▲]/[▼]**: "Off" for "Embedded Web" → **OK**

**Configuring Settings from the Web User Interface**

**To close the unit's Web port**

1. In the Web user interface, click **[Web Port Close]**.
2. Click **OK**.

**Note**

- The Web port of the unit will be closed automatically in the following conditions:
  - 3 consecutive unsuccessful login attempts occur.
- The Web port can be set to stay open continuously, through Configuration file programming (→ see "HTTPD\_PORTOPEN\_AUTO" in **5.3.8 HTTPD/WEB Settings**). However, please recognize the possibility of unauthorized access to the unit by doing so.

**Access Levels (IDs and Passwords)**

2 accounts with different access privileges are provided for accessing the Web user interface: User and Administrator. Each account has its own ID and password, which are required to log in to the Web user interface.

Account	Target User	ID (default)	Password (default)	Password Restrictions
User	End users	user	-blank-(NULL)	<ul style="list-style-type: none"> <li>• When logged in as User, you can change the password for the User account (→ see <b>4.4.2 User Password Settings</b>).</li> <li>• The password can consist of 6 to 64 ASCII characters (case-sensitive) (→ see <b>Entering Characters in 1.1.6.4 Accessing the Web User Interface</b>).</li> </ul>
Administrator	Network administrators, etc.	admin	adminpass	<ul style="list-style-type: none"> <li>• When logged in as Administrator, you can change the password for both the User and Administrator accounts (→ see <b>4.4.3 Admin Password Settings</b>).</li> <li>• The password can consist of 6 to 64 ASCII characters (case-sensitive) (→ see <b>Entering Characters in 1.1.6.4 Accessing the Web User Interface</b>).</li> </ul>

**Notice**

- Only one account can be logged in to the Web user interface at a time. If you try to access the Web user interface while someone is logged in, you will be denied access.
- You cannot log in to the Web user interface even under the same account as someone who is already logged in.
- The user password is required to change the settings.
- The IDs can be changed through configuration file programming (→ see "ADMIN\_ID" and "USER\_ID" in **5.3.8 HTTPD/WEB Settings**).
- If you forget your account IDs or passwords, consult your phone system dealer/service provider.

### 1.1.6.4 Accessing the Web User Interface

The unit can be configured from the Web user interface.

**To access the Web user interface**

1. Open your Web browser, and then enter "http://" followed by the unit's IP address into the address field of your browser.
  - a. When the IP address is 192.168.0.1 (IPv4), access the following URL.  
http://192.168.0.1/
  - b. When the IP address is 2001:db8:1f70::999:de8:7648:6e8 (IPv6), access the following URL. With IPv6, the IP address is enclosed in square brackets ("[" and "]").  
http://[2001:db8:1f70::999:de8:7648:6e8]/

**Note**

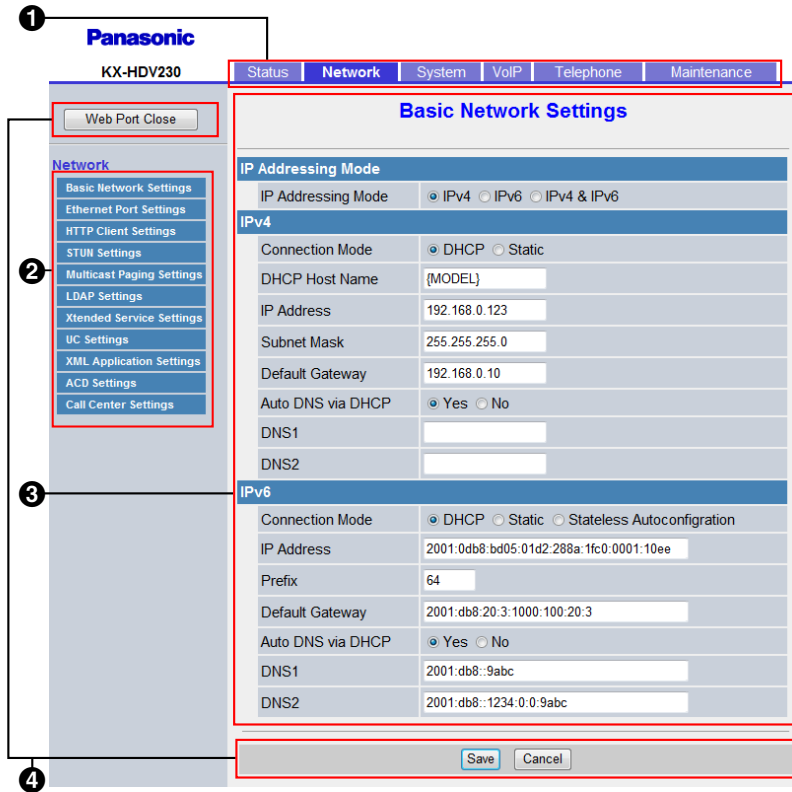
- To determine the unit's IP address, perform the following operations on the unit:
    1. **MENU**
    2. **[▲]/[▼]**: "System Settings" → **OK**
    3. **[▲]/[▼]**: "Status" → **OK**
    4. **[▲]/[▼]**: "IPv4 Settings"/"IPv6 Settings" → **OK**
    5. **[▲]/[▼]**: "IP Address".
2. For authentication, enter your ID (username) and password, and then click **OK**.

**Notice**

- The default ID for the User account is "user", and the default password is blank. The ID cannot be changed from the Web user interface, but it can be changed through configuration file programming.
  - When you log in as User to the Web user interface for the first time, the **[User Password Settings]** screen (→ see **4.4.2 User Password Settings**) will be displayed. Enter a new password, and then perform authentication again with the new password to log in to the Web user interface.
  - The default ID for the Administrator account is "admin", and the default password is "adminpass". The ID cannot be changed from the Web user interface, but it can be changed through configuration file programming.
3. The Web user interface window is displayed. Configure the settings for the unit as desired.
  4. You can log out from the Web user interface at any time by clicking **[Web Port Close]**.

## Controls on the Window

The Web user interface window contains various controls for navigating and configuring settings. The following figure shows the controls that are displayed on the **[Basic Network Settings]** screen as an example:



**Note**

- Actual default values may vary depending on your phone system dealer/service provider.
- When you log in to the Web user interface with the User account, the languages of messages displayed on the configuration screen may differ depending on the country/area of use.

**1 Tabs**

Tabs are the top categories for classifying settings. When you click a tab, the corresponding menu items and the configuration screen of the first menu item appear. There are 6 tabs for the Administrator account and 3 tabs for the User account. For details about the account types, see **Access Levels (IDs and Passwords)** in this section.

**2 Menu**

The menu displays the sub-categories of the selected tab.

**3 Configuration Screen**

Clicking a menu displays the corresponding configuration screen, which contains the actual settings, grouped into sections. For details, see **4.2 Status** to **4.7.6 Restart**.

**4 Buttons**

The following standard buttons are displayed in the Web user interface:

Button	Function
Web Port Close	Closes the Web port of the unit and logs you out of the Web user interface after a confirmation message is displayed.
Save	Applies changes and displays a result message (→ see <b>Result Messages</b> in this section).

Button	Function
Cancel	Discards changes. The settings on the current screen will return to the values they had before being changed.
Refresh	Updates the status information displayed on the screen. This button is displayed in the upper-right area of the <b>[Network Status]</b> and <b>[VoIP Status]</b> screens.

## Entering Characters

In the Web user interface, when specifying a name, message, password, or other text item, you can enter any of the ASCII characters displayed in the following table with a white background.

	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
20	SP	!	"	#	\$	%	&	'	(	)	*	+	,	-	.	/
30	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
40	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
50	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
60	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
70	p	q	r	s	t	u	v	w	x	y	z	{		}	~	

However, there are additional limitations for certain types of fields as follows:

- Number field
  - You may only enter a sequence of numeric characters.
- IP Address field
  - You can enter the IP address using dotted-decimal notation (i.e., "n.n.n.n" where n=0–255).
  - With IPv6, you can enter the IP address using dotted-decimal notation (i.e., "n:n:n:n:n:n:n" where n=0-FFFF, abbreviation available).
- FQDN field
  - You can enter the IP address using dotted-decimal notation (i.e., "n.n.n.n" where n=0–255).
  - With IPv6, the IP address is enclosed in square brackets ("[" and "]").  
Example: `http://[2001:db8:1f70::999:de8:7648:6e8]/`
- Display Name field (→ see **[Display Name]** in **4.6.2.1 Call Features**)
  - This is the only field in which you can enter Unicode characters.

## Result Messages

When you click **[Save]** after changing the settings on the current configuration screen, one of the following messages will appear in the upper-left area of the current configuration screen:

## 1.2.1 Firmware Update

---

Result Message	Description	Applicable Screens
Complete	The operation has successfully completed.	All screens except <b>4.6.7 Export Phonebook</b>
Failed (Parameter Error)	The operation failed because: <ul style="list-style-type: none"><li>Some specified values are out of range or invalid.</li></ul>	All screens
Failed (Memory Access Failure)	The operation failed because: <ul style="list-style-type: none"><li>Access error to the flash memory occurred while reading or writing the data.</li></ul>	All screens
Failed (Transfer Failure) <sup>1</sup>	The operation failed because: <ul style="list-style-type: none"><li>A network error occurred during the data transmission.</li></ul>	All screens
Failed (Busy)	The operation failed because: <ul style="list-style-type: none"><li>The unit is in an operation that accesses the flash memory of the unit.</li></ul>	All screens
	<ul style="list-style-type: none"><li>When attempting to import/export the phonebook data, the unit is on a call.</li><li>While transferring the phonebook data, a call arrived at the unit.</li></ul>	<b>4.6.6 Import Phonebook</b> <b>4.6.7 Export Phonebook</b>
Failed (Canceled)	The operation failed because: <ul style="list-style-type: none"><li>While transferring the phonebook data, the connection with the unit was interrupted.</li></ul>	<b>4.6.6 Import Phonebook</b> <b>4.6.7 Export Phonebook</b>
Failed (Invalid File)	The operation failed because: <ul style="list-style-type: none"><li>Analysis of the received data failed.</li></ul>	<b>4.6.6 Import Phonebook</b>
Failed (File Size Error)	The operation failed because: <ul style="list-style-type: none"><li>The size of the imported phonebook is too large.</li></ul>	<b>4.6.6 Import Phonebook</b>
No Data	The operation failed because: <ul style="list-style-type: none"><li>The imported phonebook file contains no valid phonebook entries.</li></ul>	<b>4.6.6 Import Phonebook</b>
	<ul style="list-style-type: none"><li>No phonebook entry is registered in the export source the unit.</li></ul>	<b>4.6.7 Export Phonebook</b>

<sup>1</sup> "Failed (Transfer Failure)" may not be displayed depending on your Web browser.

## 1.2 Firmware Update

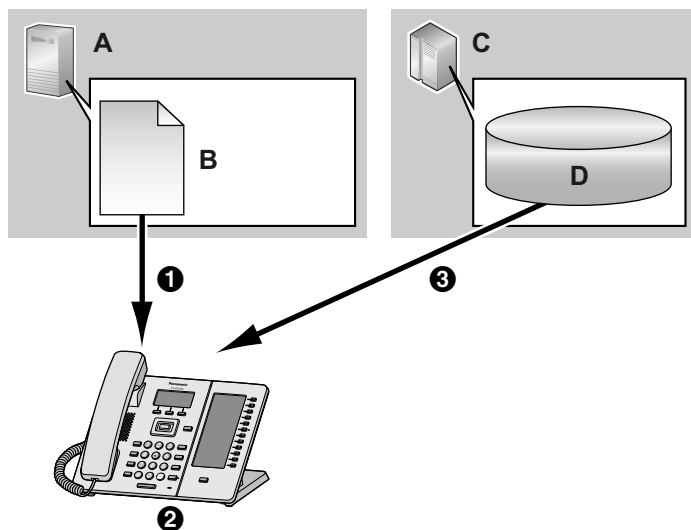
---

### 1.2.1 Firmware Update

You can update the unit's firmware to improve the unit's operation. You can configure the unit so that it automatically downloads the new firmware file from a specified location. The firmware update will be executed when the unit is restarted.



For details, see **Section 7 Firmware Update**.



- A. Provisioning server
- B. Configuration file
- C. Firmware server
- D. Firmware

- ① Download
- ② Check for update
- ③ Firmware download and update

## 1.2.1 Firmware Update

---

---

## **Section 2**

# ***General Information on Provisioning***

*This section provides an overview of the configuration file programming procedures for the unit, including pre-provisioning and provisioning.*

## 2.1 Pre-provisioning

### 2.1.1 What is Pre-provisioning?

Pre-provisioning is an auto-provisioning mechanism that automatically obtains the server address saved in the configuration file administered by the carrier or distributor.

There are two methods for automatically obtaining the server address saved in the configuration file.

1. SIP PnP  
The phone multicasts a SIP SUBSCRIBE message and obtains a provisioning server address via a SIP NOTIFY message.
2. DHCP options  
The phone obtains a provisioning server address via the DHCP option information. DHCP options 66, 159 and 160 will be used when the phone's IP address mode is IPv4, and DHCP option 17 will be used when the phone's IP address mode is IPv6.

### 2.1.2 How to Obtain a Pre-provisioning Server Address

Upon startup, the phone will attempt to obtain a pre-provisioning server address as follows.

1. When the phone's IP address mode is IPv4  
The phone will attempt to obtain a pre-provisioning server address using SIP PnP, but when it cannot, it will attempt to do so from DHCPv4 options.
2. When the phone's IP address mode is IPv6  
The phone will attempt to obtain a pre-provisioning server address from DHCPv6 options.
3. When the phone's IP address mode is IPv4/v6 Dual  
The phone will attempt to obtain a pre-provisioning server address using SIP PnP, but when it cannot, it will attempt to do so from DHCPv4 options. When this is not possible, it will attempt to do so from DHCPv6 options.

**Note**

- The SIP PnP function is enabled in the initial state. It can be enabled or disabled from the configuration parameter "SIPPNP\_PROV\_ENABLE".

### 2.1.3 Server Address Formats

1. Basic format  
Format: <scheme>://<user>:<password>@<host>:<port>/<url-path>/<file name>  
\* The server name (<host>) may be the IP address or the domain.  
\* Maximum length: 384 characters
2. Macros used with file names

Macro Format {XXXX}	Macro Expansion
{MAC}	If the URL contains {MAC}, it will be replaced with the device's MAC address in uppercase letters. Example: {MAC} → 0080F0C571EB
{mac}	If the URL contains {mac}, it will be replaced with the device's MAC address in lowercase letters. Example: {mac} → 0080f0c571eb

Macro Format {XXXX}	Macro Expansion
{MODEL}	If the URL contains {MODEL}, it will be replaced with the device's model name. Example: {MODEL} → KX-HDV230
{fwver}	If the URL contains {fwver}, it will be replaced with the device's firmware version. Example: {fwver} → 01.000

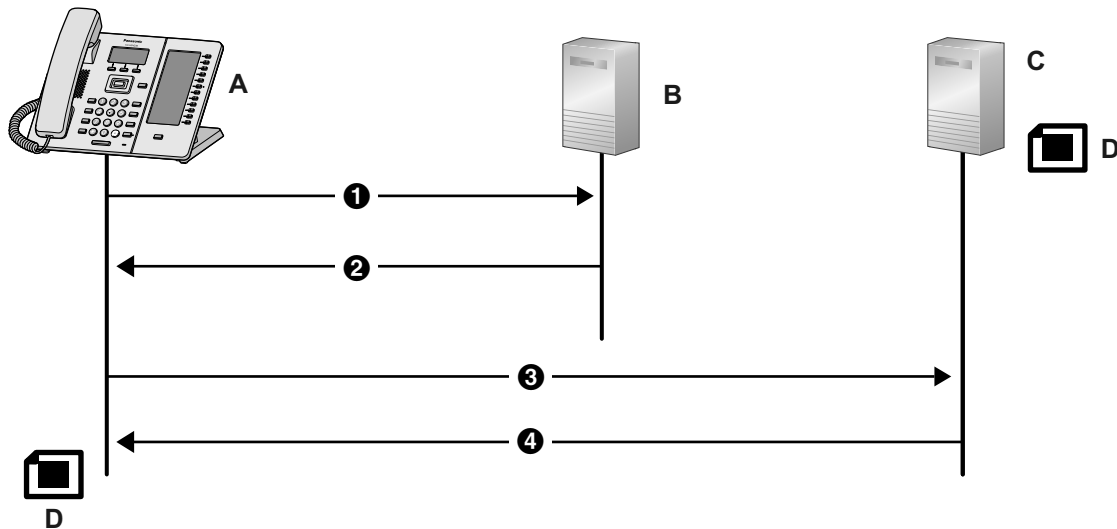
**Note**

- Macros distinguish between uppercase and lowercase letters.
- Macros not specified above will be treated as strings of characters.

## 2.1.4 Obtaining a Provisioning Server Address via SIP PnP

1. Basic Sequence

At startup, the phone will multicast a SIP SUBSCRIBE message for the ua-profile event, receive a SIP NOTIFY message from the PnP server and obtain a pre-provisioning server address. It will then obtain a provisioning server address from the pre-provisioning server.



- A. KX-HDV230
- B. PnP Server
- C. Pre-provisioning Server
- D. xxxxxxxxxxxx.cfg

- ① SUBSCRIBE (multicast)
- ② NOTIFY (unicast)  
Body http://server/{MODEL}.cfg
- ③ HTTP GET {MODEL}.cfg
- ④ 200OK

Obtain provisioning server information  
CFG\_STANDARD\_FILE\_PATH

## 2.1.5 Obtaining a Provisioning Server Address from DHCP Options

CFG\_PRODUCT\_FILE\_PATH  
CFG\_MASTER\_FILE\_PATH

### 2. Provisioning server URL formats

Format: <scheme>://<user>:<password>@<host>:<port>/<url-path>/<file name>

<scheme>	Mandatory	Protocol (TFTP/FTP/HTTP/HTTPS)
<user>	Optional	User name
<password>	Optional	Password
<host>	Mandatory	IP Address or Domain
<port>	Optional	Port number
<url-path>	Optional	Full path of the resource
<file name>	Mandatory	File name

1. Case 1: Protocol, server name and file name  
http://10.0.0.1/{MODEL}.cfg  
http://prov.com/{MODEL}.cfg
2. Case 2: Protocol, server name, path and file name  
http://10.0.0.1/pana/{MODEL}.cfg  
http://prov.com/pana/{MODEL}.cfg
3. Case 3 Protocol, user name, password, server name and file name  
http://id:pass@10.0.0.1/{MAC}.cfg  
http://id:pass@prov.com/{MAC}.cfg

## 2.1.5 Obtaining a Provisioning Server Address from DHCP Options

### 1. DHCPv4

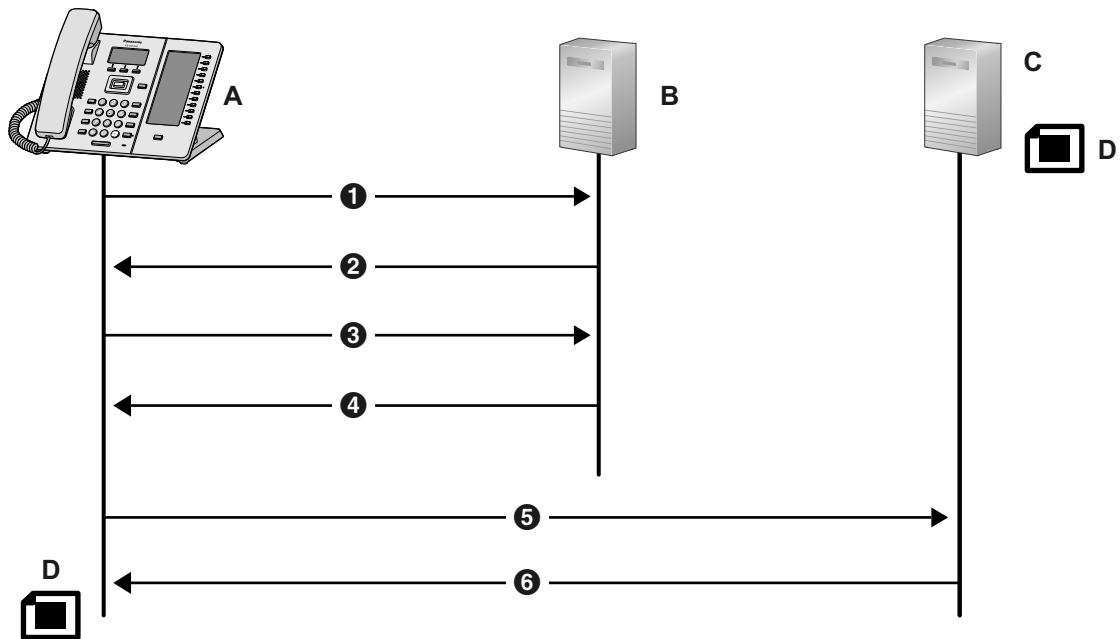
#### a. Basic Sequence

In a DHCPv4 environment, the phone will transmit a DHCP DISCOVER message for DHCP options (66, 67, 159 and 160), receive a DHCP OFFER message, obtain a pre-provisioning server address and obtain a provisioning server address from the pre-provisioning server.

#### Note

- DHCP options (66, 159 and 160) are enabled in the initial state and can be enabled and disabled from the configuration parameters.

DHCP options	Configuration parameter	Priority
Option 66	OPTION66_ENABLE	3
Option 159	OPTION159_PROV_ENABLE	2
Option 160	OPTION160_PROV_ENABLE	1



- A. KX-HDV230
- B. DHCP Server
- C. Pre-provisioning Server
- D. KX-HDV230.cfg

- ① DHCP DISCOVER
- ② DHCP OFFER
- ③ DHCP REQUEST
- ④ DHCP ACK
- ⑤ TFTP {MODEL}.cfg
- ⑥ 200OK

Obtain provisioning server information  
**CFG\_STANDARD\_FILE\_PATH**  
**CFG\_PRODUCT\_FILE\_PATH**  
**CFG\_MASTER\_FILE\_PATH**

- b. Format for pre-provisioning files obtained from DHCP option 67  
 Format: <path>/<file name>

<path>	Optional	path
<file name>	Mandatory	file name

- 1. Case 1: File name only  
 {MODEL}.cfg
- 2. Case 2: Path and file name  
 pana/{MODEL}.cfg
- c. Format for pre-provisioning server address obtained from DHCP options 159 and 160  
 Format: <scheme>://<user>:<password>@<host>:<port>/<url-path>

<scheme>	Mandatory	Protocol (TFTP/FTP/HTTP/HTTPS)
----------	-----------	--------------------------------

## 2.1.5 Obtaining a Provisioning Server Address from DHCP Options

<user>	Optional	User name
<password>	Optional	Password
<host>	Mandatory	IP Address or Domain
<port>	Optional	Port number
<url-path>	Optional	Full path of the resource

The obtained file is the <path>/<file name> set in DHCP option 67.

If DHCP option 67 is not set, {MODEL}.cfg is obtained.

The examples in parentheses below are when {MODEL}.cfg is set for DHCP option 67.

1. Case 1: Protocol and server name  
 http://10.0.0.1 (http://10.0.0.1/{MODEL}.cfg)  
 http://prov.com (http://prov.com/{MODEL}.cfg)
  2. Case 2: Protocol, server name and path  
 http://10.0.0.1/pana (http://10.0.0.1/pana/{MODEL}.cfg)  
 http://prov.com/pana (http://prov.com/pana/{MODEL}.cfg)
  3. Case 3: Protocol, user name, password and server name  
 http://id:pass@10.0.0.1 (http://id:pass@10.0.0.1/{MODEL}.cfg)  
 http://id:pass@prov.com (http://id:pass@prov.com/{MODEL}.cfg)
- d. Format for pre-provisioning server address obtained from DHCP option 66  
 Format: <scheme>://<user>:<password>@<host>:<port>/<url-path>

<scheme>	Optional	Protocol (TFTP/FTP/HTTP/HTTPS)
<user>	Optional	User name
<password>	Optional	Password
<host>	Mandatory	IP Address or Domain
<port>	Optional	Port number
<url-path>	Optional	Full path of the resource

The obtained file is the <path>/<file name> set in DHCP option 67.

If DHCP option 67 is not set, {MODEL}.cfg is obtained.

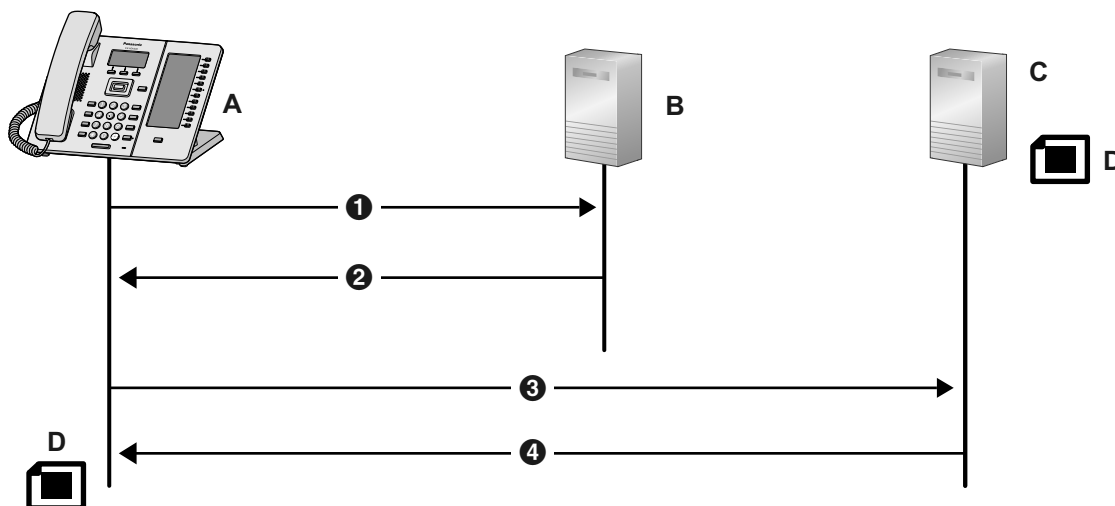
The examples in parentheses below are when {MODEL}.cfg is set for DHCP option 67.

1. Case 1: Protocol and server name  
 http://10.0.0.1 (http://10.0.0.1/{MODEL}.cfg)  
 http://prov.com (http://prov.com/{MODEL}.cfg)
  2. Case 2: Protocol, server name and path  
 http://10.0.0.1/pana (http://10.0.0.1/pana/{MODEL}.cfg)  
 http://prov.com/pana (http://prov.com/pana/{MODEL}.cfg)
  3. Case 3: Protocol, user name, password and server name  
 http://id:pass@10.0.0.1 (http://id:pass@10.0.0.1/{MODEL}.cfg)  
 http://id:pass@prov.com (http://id:pass@prov.com/{MODEL}.cfg)
  4. Case 4: Server name  
 tftp://10.0.0.1 (tftp://10.0.0.1/{MODEL}.cfg)  
 tftp://prov.com (tftp://prov.com/{MODEL}.cfg)
2. DHCPv6
- a. In a DHCPv6 environment, the phone will transmit a DHCPv6 REQUEST message for DHCP option 17, receive a DHCPv6 REPLY message, obtain a pre-provisioning server address and obtain a provisioning server address from the pre-provisioning server.



**Note**

- DHCP option 17 is enabled in the initial state and can be enabled and disabled from the configuration parameters ("DHCPV6\_OPTION17\_PROV\_ENABLE").



- A. KX-HDV230
- B. DHCP Server
- C. Pre-provisioning Server
- D. KX-HDV230.cfg

- ① DHCPv6 REQUEST
- ② DHCPv6 REPLY
- ③ TFTP {MODEL}.cfg
- ④ 200OK

Obtain provisioning server information

```
CFG_STANDARD_FILE_PATH
CFG_PRODUCT_FILE_PATH
CFG_MASTER_FILE_PATH
```

- b. Format for pre-provisioning addresses obtained from DHCPv6 option 17  
Format: <scheme>://<user>:<password>@<host>:<port>/<url-path>

<scheme>	Mandatory	Protocol (TFTP/FTP/HTTP/HTTPS)
<user>	Optional	User name
<password>	Optional	Password
<host>	Mandatory	IP Address or Domain
<port>	Optional	Port number
<url-path>	Optional	Full path of the resource
<file name>	Mandatory	File name

- 1. Case 1: Protocol, server name, and file name  
[http://\[2001:0db8:bd05:01d2:288a:1fc0:0001:10ee\]/{MODEL}.cfg](http://[2001:0db8:bd05:01d2:288a:1fc0:0001:10ee]/{MODEL}.cfg)  
<http://prov.com/{MODEL}.cfg>

### 2.2.3 Configuration File

---

2. Case 2: Protocol, server name, path and file name  
http://[2001:db8::1234:0:0:9abc]/pana/{MODEL}.cfg  
http://prov.com/pana/{MODEL}.cfg
3. Case 3: Protocol, user name, password, server name and file name  
http://id:pass@[2001:db8::9abc]/{MAC}.cfg  
http://id:pass@prov.com/{MAC}.cfg

## 2.2 Provisioning

---

### 2.2.1 What is Provisioning?

After pre-provisioning has been performed (→ see **2.1 Pre-provisioning**), you can set up the unit automatically by downloading the configuration file stored on the provisioning server into the unit. This is called "provisioning".

### 2.2.2 Protocols for Provisioning

Provisioning can be performed over HTTP, HTTPS, FTP, and TFTP. The protocol you should use differs depending on how you will perform provisioning. Normally, HTTP, HTTPS, or FTP is used for provisioning. If you are transmitting encrypted configuration files, it is recommended that you use HTTP. If you are transmitting unencrypted configuration files, it is recommended that you use HTTPS. You may not be able to use FTP depending on the conditions of the network router or the network to be used.

### 2.2.3 Configuration File

This section gives concrete examples of the functions of the configuration file and how to manage it. The configuration file is a text file that contains the various settings that are necessary for operating the unit. The files are normally stored on a server maintained by your phone system dealer/service provider, and will be downloaded to the units as required. All configurable settings can be specified in the configuration file. You can ignore settings that already have the desired values. Only change parameters as necessary. For details about setting parameters and their descriptions, see **Section 5 Configuration File Programming**.

## Using 3 Types of Configuration Files

---

The unit can download up to 3 configuration files. One way to take advantage of this is by classifying the configuration files into the following 3 types:

Type	Usage
Master configuration file	Configure settings that are common to all units, such as the SIP server address, and the IP addresses of the DNS and NTP (Network Time Protocol) servers managed by your phone system dealer/service provider. This configuration file is used by all the units.  Example of the configuration file's URL: http://prov.example.com/Panasonic/ConfigCommon.cfg

Type	Usage
Product configuration file	<p>Configure settings that are required for a particular model, such as the default setting of the privacy mode. This configuration file is used by all the units that have the same model name.</p> <p>The same number of configuration files as models being used on the network are stored on the provisioning server, and units with the same model name download the corresponding configuration file.</p> <p>Example of the configuration file's URL:  <a href="http://prov.example.com/Panasonic/Config{MODEL}.cfg">http://prov.example.com/Panasonic/Config{MODEL}.cfg</a></p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>When a unit requests the configuration file, "{MODEL}" is replaced by the model name of the unit.</li> </ul>
Standard configuration file	<p>Configure settings that are unique to each unit, such as the phone number, user ID, password, etc.</p> <p>The same number of configuration files as units are stored on the provisioning server, and each unit downloads the corresponding standard configuration file.</p> <p>Example of the configuration file's URL:  <a href="http://prov.example.com/Panasonic/Config{MAC}.cfg">http://prov.example.com/Panasonic/Config{MAC}.cfg</a></p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>When a unit requests the configuration file, "{MAC}" is replaced by the MAC address of the unit.</li> </ul>

Depending on the situation, you can use all 3 types of configuration files, and can also use only a standard configuration file.

The above example shows only one possible way to use configuration files. Depending on the requirements of your phone system dealer/service provider, there are a number of ways to use configuration files effectively.

## Using 2 Types of Configuration Files

The following table shows an example of using 2 types of configuration files: a master configuration file to configure settings common to all units, and product configuration files to configure settings common to particular groups.

### Using Product Configuration Files According to the Position Groups

You can use product configuration files for different groups or for multiple users within the same group.

Department Name	URL of Product Configuration File
Sales	<a href="http://prov.example.com/Panasonic/ConfigSales.cfg">http://prov.example.com/Panasonic/ConfigSales.cfg</a>
Planning	<a href="http://prov.example.com/Panasonic/ConfigPlanning.cfg">http://prov.example.com/Panasonic/ConfigPlanning.cfg</a>

## 2.2.4 Downloading Configuration Files

### Downloading a Configuration File via the Web User Interface

---

The following procedure describes how to enable downloading a configuration file via the Web User Interface to be used for programming the unit.

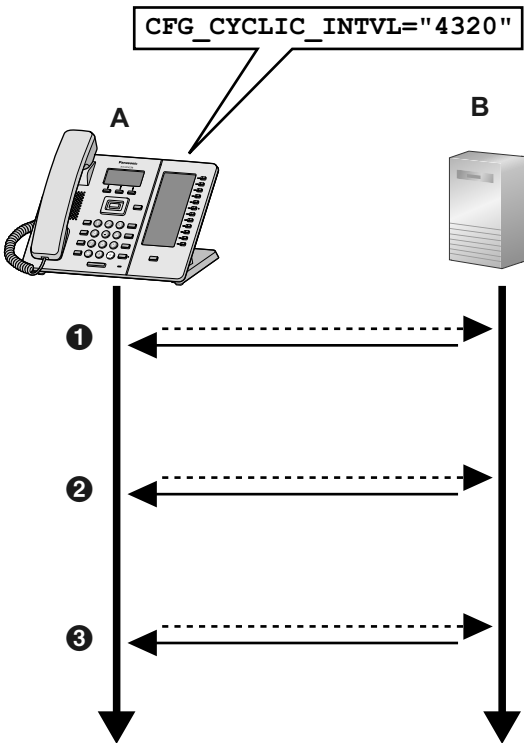
1. Confirm that the provisioning server's IP address/FQDN and directory are correct, and store the configuration files in the directory (e.g., `http://provisioning.example.com/Panasonic/Config_Sample.cfg`).
2. Enter the IP address of the unit into the PC's Web browser (→ see **1.1.6.3 Before Accessing the Web User Interface**).
3. Log in as the administrator (→ see **Access Levels (IDs and Passwords)** in **1.1.6.3 Before Accessing the Web User Interface**).
4. Click the **[Maintenance]** tab, and then select **[Provisioning Maintenance]**.
5. Enter the URL set up in Step 1 in **[Standard File URL]**.
6. Click **[Save]**.

### Timing of Downloading

---

A unit downloads configuration files when it starts up, at regular intervals, and when directed to do so by the server.

Download Timing	Explanation
Startup	The configuration files are downloaded when the unit starts up.

Download Timing	Explanation
At regular intervals of time	<p>The configuration files are downloaded at specified intervals of time, set in minutes. In the example below, the unit has been programmed to download configuration files from the provisioning server every 3 days (4320 minutes).</p> <div style="text-align: center;">  </div> <p><b>A.</b> KX-HDV230  <b>B.</b> Provisioning Server</p> <p>❶ Power on          ❷ 3 days later          ❸ 6 days later</p> <p>---▶ : Check          ◀ : Download</p>

## 2.2.4 Downloading Configuration Files

---

Download Timing	Explanation
	<p>The configuration files are downloaded periodically under the following conditions:</p> <ul style="list-style-type: none"><li>• In the configuration file, add the line, <code>CFG_CYCLIC="Y"</code>.<ul style="list-style-type: none"><li>– Set an interval (minutes) by specifying "<code>CFG_CYCLIC_INTVL</code>".</li></ul></li><li>• In the Web user interface:<ul style="list-style-type: none"><li>– Click the <b>[Maintenance]</b> tab, click <b>[Provisioning Maintenance]</b>, and then select <b>[Yes]</b> for <b>[Cyclic Auto Resync]</b>.</li><li>– Enter an interval (minutes) in <b>[Resync Interval]</b>.</li></ul></li></ul> <p><b>Note</b></p> <ul style="list-style-type: none"><li>• The interval may be determined by your phone system dealer/ service provider. A maximum interval of 28 days (40320 minutes) can be set on the unit.</li></ul>

Download Timing	Explanation
At a specified time each day	<p>After the unit is powered on, it will download configuration files once per day at the specified time.</p> <div style="text-align: center;"> </div> <p><b>A.</b> KX-HDV230  <b>B.</b> Provisioning Server</p> <p>❶ power on at 12:00          ❷ 02:00          ❸ 02:00</p> <p>---▶ : Check          ◀--- : Download</p> <ul style="list-style-type: none"> <li>In the configuration file:             <ul style="list-style-type: none"> <li>Set a time by specifying "CFG_RESYNC_TIME".</li> </ul> </li> <li>In the Web user interface:             <ul style="list-style-type: none"> <li>Click the <b>[Maintenance]</b> tab, click <b>[Provisioning Maintenance]</b>, and then enter the time in <b>[Time Resync]</b>.</li> </ul> </li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>The time is specified using a 24-hour clock ("00:00" to "23:59").</li> </ul>

## 2.2.5 Provisioning Server Setting Example

Download Timing	Explanation
When directed	<p>When a setting needs to be changed immediately, units can be directed to download the configuration files by sending them a NOTIFY message that includes a special event from the SIP server.</p> <ul style="list-style-type: none"> <li>• In the configuration file: <ul style="list-style-type: none"> <li>– Specify the special event text in "CFG_RESYNC_FROM_SIP".</li> </ul> </li> <li>• In the Web user interface: <ul style="list-style-type: none"> <li>– Click the <b>[Maintenance]</b> tab, click <b>[Provisioning Maintenance]</b>, and then enter the special event text in <b>[Header Value for Resync Event]</b>.</li> </ul> </li> </ul> <p>Generally, "check-sync" or "resync" is set as the special event text.</p>

## 2.2.5 Provisioning Server Setting Example

This section gives an example of how to set up the units and provisioning server when configuring 2 units with configuration files. The standard configuration files and the master configuration file are used in this example.

### Conditions

Item	Description/Setting
Provisioning server FQDN	prov.example.com
Units' MAC addresses	<ul style="list-style-type: none"> <li>• 0080F0111111</li> <li>• 0080F0222222</li> </ul>
URL of the configuration files	<p>Configure the following 2 settings either by pre-provisioning or through the Web user interface. The values of both settings must be the same.</p> <ul style="list-style-type: none"> <li>• CFG_STANDARD_FILE_PATH="http://prov.example.com/Panasonic/Config{MAC}.cfg"</li> <li>• CFG_MASTER_FILE_PATH="http://prov.example.com/Panasonic/ConfigCommon.cfg"</li> </ul>
Directory on the provisioning server containing the configuration files	Create the "Panasonic" directory just under the HTTP root directory of the provisioning server.
File name of configuration files	<p>Store the following configuration files in the "Panasonic" directory.</p> <ul style="list-style-type: none"> <li>• Contains the common settings for the 2 units: <ul style="list-style-type: none"> <li>– ConfigCommon.cfg</li> </ul> </li> <li>• Contains the settings unique to each unit: <ul style="list-style-type: none"> <li>– Config0080F0111111.cfg</li> <li>– Config0080F0222222.cfg</li> </ul> </li> </ul>

### To set up the provisioning server

1. Connect the units to the network, and turn them on.
  - a. The unit with the MAC address 0080F0111111 accesses the following URLs:
    - http://prov.example.com/Panasonic/ConfigCommon.cfg
    - http://prov.example.com/Panasonic/Config0080F0111111.cfg
  - b. The unit with the MAC address 0080F0222222 accesses the following URLs:
    - http://prov.example.com/Panasonic/ConfigCommon.cfg
    - http://prov.example.com/Panasonic/Config0080F0222222.cfg



### Example Provisioning Direction from the Server

The following figure shows an example NOTIFY message from the server, directing the units to perform provisioning. The text "check-sync" is specified for "CFG\_RESYNC\_FROM\_SIP".

```
NOTIFY sip:1234567890@sip.example.com SIP/2.0
Via: SIP/2.0/UDP xxx.xxx.xxx.xxx:5060;branch=abcdef-ghijkl
From: sip:prov@sip.example.com
To: sip:1234567890@sip.example.com
Date: Wed, 1 Jan 2014 01:01:01 GMT
Call-ID: 123456-1234567912345678
CSeq: 1 NOTIFY
Contact: sip:xxx.xxx.xxx.xxx:5060
Event: check-sync
Content-Length: 0
```

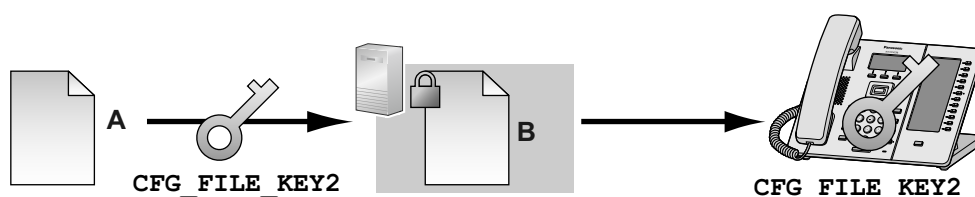
## 2.2.6 Encryption

### Secure Provisioning Methods

In order to perform provisioning securely, there are 2 methods for transferring configuration files securely between the unit and the server.

Which method is used depends on the environment and equipment available from the phone system.

#### Method 1: Transferring Encrypted Configuration Files



- A. Unencrypted configuration file
- B. Encrypted configuration file

To use this method, an encryption key is required to encrypt and decrypt the configuration files. A preset encryption key unique to each unit, an encryption key set by your phone system dealer/service provider, etc., is used for the encryption. When the unit downloads an encrypted configuration file, it will decrypt the file using the same encryption key, and then configure the settings automatically.

#### Method 2: Transferring Configuration Files Using HTTPS

This method uses SSL, which is commonly used on the Internet, to transfer configuration files between the unit and server. For more secure communication, you can use a root certificate.

#### Notice

- To avoid redundant data transfer over the network, important data, such as the encryption key used to encrypt the configuration files and the root certificate for SSL, should be configured through pre-provisioning as much as possible.
- It is recommended that you encrypt the data in order to keep the communication secure when transferring configuration files.  
However, if you are using the units within a secure environment, such as within an intranet, it is not necessary to encrypt the data.

## 2.3 Priority of Setting Methods

To decrypt configuration files, the unit uses the encryption key registered to it beforehand. The unit determines the encryption status by checking the extension of the downloaded configuration file.

For details about encrypting configuration files, contact the appropriate person in your organization.

Extension of Configuration File	Configuration File Parameters Used for Decrypting
".e2c"	CFG_FILE_KEY2
".e3c"	CFG_FILE_KEY3
Other than ".e2c", and ".e3c"	Processed as unencrypted configuration files. The extension ".cfg" should be used for unencrypted configuration files.

### Comparison of the 2 Methods

The following table compares the characteristics for the 2 transfer methods.

	Transferring Encrypted Configuration Files	Transferring Configuration Files Using HTTPS
Provisioning server load	Light	Heavy (The server encrypts data for each transmission.)
Operation load	Necessary to encrypt data beforehand.	Unnecessary to encrypt data beforehand.
Management of configuration files	Files must be decrypted and re-encrypted for maintenance.	It is easy to manage files because they are not encrypted on the server.
Security of data on the server when operating	High	Low (Configuration files are readable by anyone with access to the server.)

Moreover, there is another method: configuration files are not encrypted while stored on the server, and then, using the encryption key registered to the unit beforehand, they are encrypted when they are transferred. This method is particularly useful when several units are configured to download a common configuration file using different encryption keys. However, as when downloading an unencrypted configuration file using HTTPS, the server will be heavily burdened when transferring configuration files.

## 2.3 Priority of Setting Methods

The same settings can be configured by different configuration methods: provisioning, Web user interface programming, etc. This section explains which value is applied when the same setting is specified by multiple methods.

The following table shows the priority with which settings from each method are applied (lower numbers indicate higher priority):

Priority	Setting Method
3	The factory default settings for the unit
2	Pre-provisioning with the configuration file

Priority	Setting Method	
1	1-1	Provisioning with the standard configuration file
	1-2	Provisioning with the product configuration file
	1-3	Provisioning with the master configuration file
	Settings configured from the Web user interface or the phone user interface	

According to the table, settings configured later override previous settings (i.e., settings listed lower in the table have a higher priority).

#### Notice

- Make sure to perform Reset to Factory Default before connecting the unit to a different phone system. Contact your phone system dealer/service provider for further information.

## 2.4 Configuration File Specifications

The specifications of the configuration files are as follows:

### File Format

The configuration file is in plain text format.

### Lines in Configuration Files

A configuration file consists of a sequence of lines, with the following conditions:

- Each line must end with "<CR><LF>".

#### Note

<CR> or <LF> alone may be acceptable under certain conditions.

- Lines that begin with "#" are considered comments.
- Configuration files must start with a comment line containing the following designated character sequence (44 bytes):

```
# Panasonic SIP Phone Standard Format File #
```

The hexadecimal notation of this sequence is:

```
23 20 50 61 6E 61 73 6F 6E 69 63 20 53 49 50 20
50 68 6F 6E 65 20 53 74 61 6E 64 61 72 64 20 46
6F 72 6D 61 74 20 46 69 6C 65 20 23
```

- To prevent the designated character sequence being altered by chance, it is recommended that the configuration file starts with the comment line shown below:  
# Panasonic SIP Phone Standard Format File # DO NOT CHANGE THIS LINE!
- Configuration files must end with an empty line.
- Each parameter line is written in the form of XXX="yyy" (XXX: parameter name, yyy: parameter value). The value must be enclosed by double quotation marks.
- A parameter line written over multiple lines is not allowed. It will cause an error on the configuration file, resulting in invalid provisioning.

### Configuration Parameters

- The unit supports multiple telephone lines. For some parameters, the value for each line must be specified independently. A parameter name with the suffix "\_1" is the parameter for line 1; "\_2" for line 2; ...; "\_6" for line 6, and so on.

Examples of setting the line (phone number) for accessing a voice mail server:

## 2.4 Configuration File Specifications

---

"VM\_NUMBER\_1": for line 1,  
"VM\_NUMBER\_2": for line 2, ...,  
"VM\_NUMBER\_6": for line 6

### Note

- The number of lines available varies depending on the phone being used, as follows:
  - KX-HDV230: 1–6
- Some parameter values can be specified as "empty" to set the parameter values to empty.  
Example:  
`NTP_ADDR=""`
- The parameters have no order.
- If the same parameter is specified in a configuration file more than once, the value specified first is applied.
- All configurable settings can be specified in the configuration file. You can ignore settings that already have the desired values. Only change parameters as necessary.
- Boolean parameters (BOOLEAN) accept all of the following configurations.  
"Y": "Y", "y", "Yes", "YES", "yes"  
"N": "N", "n", "No", "NO", "no"

### Parameter Extensions

You can use parameter extensions to specify parameters as Read-Only or Carrier Default.

#### Read-Only Specification

- When "?R" or "?r" is specified, the phone user interface and Web user interface for the parameter in question is restricted to Read-Only.
  - \* Restricting the phone user interface to Read-Only  
The Read-Only parameter settings menu appears, but an error occurs during registration.
  - \* Restricting the Web user interface to Read-Only  
The Read-Only parameter settings menu appears grayed out and nothing can be entered.

### Note

- Parameters that can be configured from the device and from the Web can be confirmed from footnotes 1-3 on the parameter names in "5.1 Configuration File Parameter List".
- When "?R" or "?r" is not specified, the phone user interface and Web user interface are both readable and writable.
  - \* Optional specifications for "?R" and "?r" are enabled when the last parameter in question is configured.  
Example:  
(1) Import XXX?R="111" from the Web as a standard file.
    - XXX: Read-Only
    - XXX operational information: 111
  - (2) Import XXX="222" from the Web as a product file.
    - XXX : Read/Write
    - XXX operational information: 222
  - \* When configurations in (1) and (2) are used, the higher priority standard file will be enabled and the value for XXX in Read-Only mode will be 111.

#### Carrier Default Specification

- When "?!" is specified, applicable parameter values are managed as carrier default values when applied to operational information.
  - \* Carrier default values are applied once a reset to carrier defaults is executed. Carrier defaults will also be initialized when a reset to device defaults is executed.
  - \* Once "?!" is specified, the parameter in question will be designated as a carrier default even if said parameter is configured without "?!". (This setting will remain in place until restored to factory default.)

Specification of Multiple Parameter Extensions

- One parameter can be assigned multiple extensions.  
Example: `XXX?R?!="" / XXX?!?r=""`

Parameter Extension Configuration Example

1. In the configuration file, set IP Addressing Mode to IPv4 and Read-Only  
Example parameter: `IP_ADDR_MODE?R="0"` ("0": IPv4)
2. If an error occurs when attempting to set the IP Mode to IPv6, see **To configure IP Mode (IPv4, IPv6, IPv4&IPv6)** in **Configuring the Network Settings of the Unit**.

## 2.5 Configuration File Examples

The following examples of configuration files are provided on the Panasonic Web site (→ see **Introduction**).

- Simplified Example of the Configuration File
- Comprehensive Example of the Configuration File

### 2.5.1 Examples of Codec Settings

#### Setting the Codec Priority to (1)G.729A, (2)PCMU, (3)G.722

```
## Codec Settings
# Enable G722
CODEC_ENABLE0_1="Y"
CODEC_PRIORITY0_1="3"
# Disable PCMA
CODEC_ENABLE1_1="N"
# Enable G729A
CODEC_ENABLE3_1="Y"
CODEC_PRIORITY3_1="1"
# Enable PCMU
CODEC_ENABLE4_1="Y"
CODEC_PRIORITY4_1="2"
```

#### Setting Narrow-band Codecs (PCMA and G.729A)

```
## Codec Settings
# Disable G722
CODEC_ENABLE0_1="N"
# Enable PCMA
CODEC_ENABLE1_1="Y"
CODEC_PRIORITY1_1="1"
# Enable G729A
CODEC_ENABLE3_1="Y"
CODEC_PRIORITY3_1="1"
# Disable PCMU
CODEC_ENABLE4_1="N"
```

## Setting the G.729A Codec Only

---

```
## Codec Settings
# Disable G722
CODEC_ENABLE0_1="N"
# Disable PCMA
CODEC_ENABLE1_1="N"
# Enable G729A
CODEC_ENABLE3_1="Y"
CODEC_PRIORITY3_1="1"
# Disable PCMU
CODEC_ENABLE4_1="N"
```

## 2.5.2 Example with Incorrect Descriptions

The following listing shows an example of a configuration file that contains incorrect formatting:

- ❶ An improper description is entered in the first line. A configuration file must start with the designated character sequence "# Panasonic SIP Phone Standard Format File #".
- ❷ Comment lines start in the middle of the lines.

### Incorrect Example

---

```
# This is a simplified sample configuration file. —❶

#####
# Configuration Setting #
#####

CFG_STANDARD_FILE_PATH="http://config.example.com/0123456789AB.cfg"
                        # URL of this configuration file

#####
# SIP Settings #
# Suffix "_1" indicates this parameter is for "line 1". #
#####

SIP_RGSTR_ADDR_1="registrar.example.com" # IP Address or FQDN of SIP registrar server —❷
SIP_PRXY_ADDR_1="proxy.example.com"     # IP Address or FQDN of proxy server
```

---

## **Section 3**

# ***Phone User Interface Programming***

*This section explains how to configure the unit by entering direct commands through the phone user interface.*

## 3.1 Phone User Interface Programming

---

This section provides information about the features that can be configured directly from the unit, but that are not mentioned in the Operating Instructions.

### 3.1.1 Opening/Closing the Web Port

To access the Web user interface, you must open the unit's Web port beforehand.

#### To open the unit's Web port

1. **MENU**
2. **[▲]/[▼]: "Basic Settings" → OK**
3. **[▲]/[▼]: "Other Option" → OK**
4. **[▲]/[▼]: "Embedded Web" → OK**
5. **[▲]/[▼]: "On" for "Embedded Web" → OK**

#### To close the unit's Web port

1. **MENU**
2. **[▲]/[▼]: "Basic Settings" → OK**
3. **[▲]/[▼]: "Other Option" → OK**
4. **[▲]/[▼]: "Embedded Web" → OK**
5. **[▲]/[▼]: "Off" for "Embedded Web" → OK**



---

## **Section 4**

# ***Web User Interface Programming***

*This section provides information about the settings available in the Web user interface.*

## 4.1 Web User Interface Setting List

The following tables show all the settings that you can configure from the Web user interface and the access levels. For details about each setting, see the reference pages listed.

For details about setting up Web user interface programming, see **1.1.6 Web User Interface Programming**.

### Status

Menu Item	Section Title	Setting	Access Level <sup>1</sup>		Ref.
			U	A	
Version Information	Version Information	Model	✓	✓	Page 70
		Operating Bank	✓	✓	Page 70
		IPL Version	✓	✓	Page 70
		Firmware Version	✓	✓	Page 70
Network Status	Network Common	MAC Address	✓	✓	Page 71
		Ethernet Link Status	✓	✓	Page 71
		IP Address Mode	✓	✓	Page 71
	IPv4	Connection Mode	✓	✓	Page 72
		IP Address	✓	✓	Page 72
		Subnet Mask	✓	✓	Page 72
		Default Gateway	✓	✓	Page 72
		DNS1	✓	✓	Page 72
		DNS2	✓	✓	Page 73
		IPv6	Connection Mode	✓	✓
	IP Address		✓	✓	Page 73
	Prefix		✓	✓	Page 73
	Default Gateway		✓	✓	Page 73
	DNS1		✓	✓	Page 74
	DNS2		✓	✓	Page 74
	VLAN	Setting Mode	✓	✓	Page 74
		LAN Port VLAN ID	✓	✓	Page 74
		LAN Port VLAN Priority	✓	✓	Page 74
		PC Port VLAN ID	✓	✓	Page 74
		PC Port VLAN Priority	✓	✓	Page 75

Menu Item	Section Title	Setting	Access Level <sup>1</sup>		Ref.
			U	A	
VoIP Status	VoIP Status	Line No.	✓	✓	Page 75
		Phone Number	✓	✓	Page 75
		VoIP Status	✓	✓	Page 75

<sup>1</sup> The access levels are abbreviated as follows:

U: User; A: Administrator

A check mark indicates that the setting is available for that access level.

## Network

Menu Item	Section Title	Setting	Access Level <sup>1</sup>		Ref.	
			U	A		
Basic Network Settings	IP Addressing Mode	IP Addressing Mode <sup>2</sup>		✓	Page 77	
	IPv4	Connection Mode <sup>2</sup>			✓	Page 77
		DHCP Host Name <sup>3</sup>			✓	Page 78
		IP Address <sup>2</sup>			✓	Page 78
		Subnet Mask <sup>2</sup>			✓	Page 78
		Default Gateway <sup>2</sup>			✓	Page 78
		Auto DNS via DHCP <sup>2</sup>			✓	Page 79
		DNS1 <sup>2</sup>			✓	Page 79
		DNS2 <sup>2</sup>			✓	Page 79
	IPv6	Connection Mode <sup>2</sup>			✓	Page 79
		IP Address <sup>2</sup>			✓	Page 80
		Prefix <sup>2</sup>			✓	Page 80
		Default Gateway <sup>2</sup>			✓	Page 80
		Auto DNS via DHCP <sup>2</sup>			✓	Page 81
DNS1 <sup>2</sup>				✓	Page 81	
Ethernet Port Settings	Link Speed/Duplex Mode	LAN Port <sup>2</sup>		✓	Page 82	
		PC Port <sup>2</sup>		✓	Page 82	
	LLDP	Enable LLDP <sup>2</sup>			✓	Page 83
		Packet Interval <sup>3</sup>			✓	Page 83
		PC VLAN ID <sup>2</sup>			✓	Page 83

#### 4.1 Web User Interface Setting List

Menu Item	Section Title	Setting	Access Level <sup>1</sup>		Ref.
			U	A	
	VLAN	PC Priority <sup>2</sup>		✓	Page 83
		Enable VLAN <sup>2</sup>		✓	Page 84
		IP Phone VLAN ID <sup>2</sup>		✓	Page 84
		IP Phone Priority <sup>2</sup>		✓	Page 84
		PC VLAN ID <sup>2</sup>		✓	Page 84
		PC Priority <sup>2</sup>		✓	Page 85
HTTP Client Settings	HTTP Client	HTTP Version <sup>3</sup>		✓	Page 85
		HTTP User Agent <sup>3</sup>		✓	Page 86
		Authentication ID <sup>2</sup>		✓	Page 86
		Authentication Password <sup>2</sup>		✓	Page 86
	Proxy Server	Enable Proxy <sup>3</sup>		✓	Page 87
		Proxy Server Address <sup>3</sup>		✓	Page 87
STUN Settings	STUN	Proxy Server Port <sup>3</sup>		✓	Page 87
		Server Address <sup>3</sup>		✓	Page 88
		Port <sup>3</sup>		✓	Page 88
Multicast Paging Settings	Multicast Paging	Binding Interval <sup>3</sup>		✓	Page 89
		Group 1–5	–	–	–
		- IPv4 Address <sup>3</sup>		✓	Page 89
		- IPv6 Address <sup>3</sup>		✓	Page 90
		- Port <sup>3</sup>		✓	Page 90
		- Priority <sup>3</sup> (Group 1–3 only)		✓	Page 90
		- Label <sup>3</sup>		✓	Page 90
- Enable Transmission <sup>3</sup>		✓	Page 90		
LDAP Settings	LDAP	Enable LDAP <sup>3</sup>		✓	Page 91
		Server Address <sup>3</sup>		✓	Page 91
		Port <sup>3</sup>		✓	Page 92
		User ID <sup>3</sup>		✓	Page 92
		Password <sup>3</sup>		✓	Page 92
		Max Hits <sup>3</sup>		✓	Page 92
		Name Filter <sup>3</sup>		✓	Page 92
		Number Filter <sup>3</sup>		✓	Page 93

Menu Item	Section Title	Setting	Access Level <sup>1</sup>		Ref.
			U	A	
		Name Attributes <sup>3</sup>		✓	Page 93
		Number Attributes <sup>3</sup>		✓	Page 93
		Display Name <sup>3</sup>		✓	Page 93
		Enable DNS SRV lookup <sup>3</sup>		✓	Page 93
Xtended Service Settings	Xtended Service	Enable Xtended Service <sup>3</sup>		✓	Page 94
		Server Address <sup>3</sup>		✓	Page 95
		Port <sup>3</sup>		✓	Page 95
		Protocol <sup>3</sup>		✓	Page 95
		Line 1–6	–	–	–
		- User ID <sup>2</sup>		✓	Page 95
		- Password <sup>2</sup>		✓	Page 95
		- Enable Phonebook <sup>3</sup>		✓	Page 96
		- Phonebook Type <sup>3</sup>		✓	Page 96
- Enable Call Log <sup>3</sup>		✓	Page 96		
UC Settings	Presence Feature	Enable UC <sup>3</sup>		✓	Page 97
		Server Address <sup>3</sup>		✓	Page 97
		Local XMPP Port <sup>3</sup>		✓	Page 97
		User ID <sup>2</sup>		✓	Page 98
		Password <sup>2</sup>		✓	Page 98
XML Application Settings	XML Application	Enable XMLAPP <sup>3</sup>		✓	Page 99
		User ID <sup>3</sup>		✓	Page 99
		Password <sup>3</sup>		✓	Page 100
		Local XML Port <sup>3</sup>		✓	Page 100
		Bootup URL <sup>3</sup>		✓	Page 100
		Initial URL <sup>3</sup>		✓	Page 100
		Incoming Call URL <sup>3</sup>		✓	Page 100
		Talking URL <sup>3</sup>		✓	Page 101
		Making Call URL <sup>3</sup>		✓	Page 101
		Call Log URL <sup>3</sup>		✓	Page 101
		Idling URL <sup>3</sup>		✓	Page 101
Enable FF Key <sup>3</sup>		✓	Page 101		

## 4.1 Web User Interface Setting List

Menu Item	Section Title	Setting	Access Level <sup>1</sup>		Ref.
			U	A	
	Shortcut Key Settings	Soft Key A (Left) <sup>3</sup>		✓	Page 102
		Soft Key B (Center) <sup>3</sup>		✓	Page 102
		Soft Key C (Right) <sup>3</sup>		✓	Page 102
	XML Phonebook	LDAP URL <sup>3</sup>		✓	Page 102
		User ID <sup>3</sup>		✓	Page 103
		Password <sup>3</sup>		✓	Page 103
		Max Hits <sup>3</sup>		✓	Page 103
ACD Settings	ACD Settings	Line 1–6	–	–	–
		Enable ACD <sup>3</sup>		✓	Page 104
Call Center Settings	Call Center Settings	Line 1–6	–	–	–
		Enable Call Center <sup>3</sup>		✓	Page 105
		Disposition Code <sup>3</sup>		✓	Page 105
		Customer Originated Trace <sup>3</sup>		✓	Page 105
		Hoteling Event <sup>3</sup>		✓	Page 106
		- User ID <sup>3</sup>		✓	Page 106
		- Password <sup>3</sup>		✓	Page 106
		Status Event <sup>3</sup>		✓	Page 106

<sup>1</sup> The access levels are abbreviated as follows:

U: User; A: Administrator

A check mark indicates that the setting is available for that access level.

<sup>2</sup> This setting can also be configured through other programming methods (phone user interface programming or configuration file programming).

<sup>3</sup> This setting can also be configured through configuration file programming.

## System

Menu Item	Section Title	Setting	Access Level <sup>1</sup>		Ref.
			U	A	
Language Settings	Selectable Language	IP Phone <sup>2</sup>		✓	Page 107
		Web Language <sup>2</sup>		✓	Page 108
	Language Settings	IP Phone <sup>2</sup>	✓	✓	Page 109
		Web Language <sup>2</sup>	✓	✓	Page 109

Menu Item	Section Title	Setting	Access Level <sup>1</sup>		Ref.
			U	A	
User Password Settings	User Password	Current Password	✓	✓	Page 110
		New Password <sup>2</sup>	✓	✓	Page 110
		Confirm New Password	✓	✓	Page 111
Admin Password Settings	Admin Password	Current Password		✓	Page 112
		New Password <sup>2</sup>		✓	Page 112
		Confirm New Password		✓	Page 112
Time Adjust Settings	Synchronization (Synchronisation)	Server Address <sup>2</sup>		✓	Page 113
		Synchronization Interval (Synchronisation Interval) <sup>2</sup>		✓	Page 113
	Time Zone	Time Zone <sup>2</sup>		✓	Page 113
	Daylight Saving Time (Summer Time)	Enable DST (Enable Summer Time) <sup>2</sup>		✓	Page 114
		DST Offset (Summer Time Offset) <sup>2</sup>		✓	Page 114
	Start Day and Time of DST (Start Day and Time of Summer Time)	Month <sup>2</sup>		✓	Page 114
		Day of Week		✓	Page 115
		Time <sup>2</sup>		✓	Page 115
	End Day and Time of DST (End Day and Time of Summer Time)	Month <sup>2</sup>		✓	Page 115
		Day of Week		✓	Page 116
		Time <sup>2</sup>		✓	Page 117
	Advanced Settings	Soft Key during IDLE Status	Soft Key A (Left) <sup>2</sup>		✓
Soft Key B (Center) <sup>2</sup>				✓	Page 118
Soft Key C (Right) <sup>2</sup>				✓	Page 118
IP Phone		Enable Admin Ability <sup>2</sup>		✓	Page 118
		Enable IP Phone Lock <sup>2</sup>		✓	Page 118
		Password for Unlocking <sup>2</sup>		✓	Page 119

<sup>1</sup> The access levels are abbreviated as follows:

U: User; A: Administrator

A check mark indicates that the setting is available for that access level.

<sup>2</sup> This setting can also be configured through configuration file programming.

VoIP

Menu Item	Section Title	Setting	Access Level <sup>1</sup>		Ref.
			U	A	
SIP Settings	User Agent	User Agent <sup>2</sup>		✓	Page 119
	NAT Identity	Enable Rport (RFC 3581) <sup>2</sup>		✓	Page 120
		Enable Port Punching for SIP <sup>2</sup>		✓	Page 120
		Enable Port Punching for RTP <sup>2</sup>		✓	Page 120
SIP Settings [Line 1]–[Line 6]	Basic	Phone Number <sup>2</sup>		✓	Page 121
		Registrar Server Address <sup>2</sup>		✓	Page 121
		Registrar Server Port <sup>2</sup>		✓	Page 122
		Proxy Server Address <sup>2</sup>		✓	Page 122
		Proxy Server Port <sup>2</sup>		✓	Page 122
		Presence Server Address <sup>2</sup>		✓	Page 122
		Presence Server Port <sup>2</sup>		✓	Page 122
		Outbound Proxy Server Address <sup>2</sup>		✓	Page 123
		Outbound Proxy Server Port <sup>2</sup>		✓	Page 123
		Service Domain <sup>2</sup>		✓	Page 123
		Authentication ID <sup>2</sup>		✓	Page 123
		Authentication Password <sup>2</sup>		✓	Page 123
	Advanced	SIP Packet QoS (DSCP) <sup>2</sup>		✓	Page 124
		Enable DNS SRV lookup <sup>2</sup>		✓	Page 124
		SRV lookup Prefix for UDP <sup>2</sup>		✓	Page 124
		SRV lookup Prefix for TCP <sup>2</sup>		✓	Page 125
		SRV lookup Prefix for TLS <sup>2</sup>		✓	Page 125
		Local SIP Port <sup>2</sup>		✓	Page 125
		SIP URI <sup>2</sup>		✓	Page 126
		T1 Timer <sup>2</sup>		✓	Page 126
T2 Timer <sup>2</sup>		✓	Page 126		
REGISTER Expires Timer <sup>2</sup>		✓	Page 127		
Enable Session Timer (RFC 4028) <sup>2</sup>		✓	Page 127		
Session Timer Method <sup>2</sup>		✓	Page 127		



Menu Item	Section Title	Setting	Access Level <sup>1</sup>		Ref.
			U	A	
		Enable 100rel (RFC 3262) <sup>2</sup>		✓	Page 127
		Enable SSAF (SIP Source Address Filter) <sup>2</sup>		✓	Page 128
		Enable c=0.0.0.0 Hold (RFC 2543) <sup>2</sup>		✓	Page 128
		Transport Protocol <sup>2</sup>		✓	Page 128
		TLS Mode <sup>2</sup>		✓	Page 128
VoIP Settings	RTP	RTP Packet Time <sup>2</sup>		✓	Page 129
		Minimum RTP Port Number <sup>2</sup>		✓	Page 129
		Maximum RTP Port Number <sup>2</sup>		✓	Page 130
		Telephone-event Payload Type <sup>2</sup>		✓	Page 130
	Voice Quality Report	Server Address <sup>2</sup>		✓	Page 130
		Port <sup>2</sup>		✓	Page 130
		Enable PUBLISH <sup>2</sup>		✓	Page 130
		Alert Report Trigger <sup>2</sup>		✓	Page 131
		Threshold MOS-LQ (Critical) <sup>2</sup>		✓	Page 131
		Threshold MOS-LQ (Warning) <sup>2</sup>		✓	Page 131
		Threshold Delay (Critical) <sup>2</sup>		✓	Page 131
		Threshold Delay (Warning) <sup>2</sup>		✓	Page 132
	VoIP Settings [Line1]–[Line6]	Basic	G.722	–	–
- Enable <sup>2</sup>				✓	Page 132
- Priority <sup>2</sup>				✓	Page 132
PCMA			–	–	–
- Enable <sup>2</sup>				✓	Page 133
- Priority <sup>2</sup>				✓	Page 133
G.729A			–	–	–
- Enable <sup>2</sup>				✓	Page 133
- Priority <sup>2</sup>				✓	Page 133
PCMU			–	–	–
- Enable <sup>2</sup>				✓	Page 133
- Priority <sup>2</sup>				✓	Page 134

## 4.1 Web User Interface Setting List

Menu Item	Section Title	Setting	Access Level <sup>1</sup>		Ref.
			U	A	
		DTMF Type		✓	Page 134
	Advanced	RTP Packet QoS (DSCP) <sup>2</sup>		✓	Page 134
		RTCP Packet QoS (DSCP) <sup>2</sup>		✓	Page 134
		Enable RTCP <sup>2</sup>		✓	Page 135
		Enable RTCP-XR <sup>2</sup>		✓	Page 135
		RTCP&RTCP-XR Interval <sup>2</sup>		✓	Page 135
		SRTP Mode <sup>2</sup>		✓	Page 135
		Enable Mixed SRTP & RTP by Conference <sup>2</sup>		✓	Page 136
		Enable Mixed SRTP & RTP by Transfer <sup>2</sup>		✓	Page 136

<sup>1</sup> The access levels are abbreviated as follows:

U: User; A: Administrator

A check mark indicates that the setting is available for that access level.

<sup>2</sup> This setting can also be configured through configuration file programming.

## Telephone

Menu Item	Section Title	Setting	Access Level <sup>1</sup>		Ref.
			U	A	
Call Control	Call Control	Send SUBSCRIBE to Voice Mail Server <sup>3</sup>		✓	Page 137
		Conference Server URI <sup>3</sup>		✓	Page 138
		First-digit Timeout <sup>3</sup>		✓	Page 138
		Inter-digit Timeout <sup>3</sup>		✓	Page 138
		Timer for Dial Plan <sup>3</sup>		✓	Page 138
		Enable # Key as delimiter <sup>3</sup>		✓	Page 138
		International Call Prefix <sup>3</sup>		✓	Page 139
		Country Calling Code <sup>3</sup>		✓	Page 139
		National Access Code <sup>3</sup>		✓	Page 139
		Default Line for Outgoing <sup>3</sup>	✓	✓	Page 139
		Call Park Number <sup>3</sup>		✓	Page 140
		Enable Call Park Key <sup>3</sup>		✓	Page 140
		Park Retrieve Number <sup>3</sup>		✓	Page 140

Menu Item	Section Title	Setting	Access Level <sup>1</sup>		Ref.	
			U	A		
		Park Retrieve Soft Key <sup>3</sup>		✓	Page 140	
		Directed Call Pickup <sup>3</sup>		✓	Page 141	
		Emergency Call Phone Numbers	1–5 <sup>3</sup>		✓	Page 141
		Call Rejection Phone Numbers	1–30 <sup>3</sup>	✓	✓	Page 141
Call Control [Line 1]–[Line 6]	Call Features	Display Name <sup>3</sup>		✓	Page 142	
		Voice Mail Access Number <sup>3</sup>		✓	Page 142	
		Enable Anonymous Call <sup>3</sup>	✓	✓	Page 143	
		Enable Block Anonymous Call <sup>3</sup>	✓	✓	Page 143	
		Enable Do Not Disturb <sup>2</sup>	✓	✓	Page 143	
		Enable Call Waiting <sup>3</sup>		✓	Page 143	
		Enable Call Forwarding Always <sup>2</sup>	✓	✓	Page 144	
		Forwarding Number (Always) <sup>2</sup>	✓	✓	Page 144	
		Enable Call Forwarding Busy <sup>2</sup>	✓	✓	Page 144	
		Forwarding Number (Busy) <sup>2</sup>	✓	✓	Page 144	
		Enable Call Forwarding No Answer <sup>2</sup>	✓	✓	Page 144	
		Forwarding Number (No Answer) <sup>2</sup>	✓	✓	Page 145	
		Ring Counts (No Answer) <sup>2</sup>	✓	✓	Page 145	
		Enable Shared Call <sup>3</sup>		✓	Page 145	
		Enable Key Synchronization (Enable Key Synchronisation) <sup>3</sup>		✓	Page 145	
		Enable Call Park Notification <sup>3</sup>		✓	Page 146	
		Enable Click to Call <sup>3</sup>		✓	Page 146	
		MoH Server URI <sup>3</sup>		✓	Page 146	
		Resource List URI <sup>3</sup>		✓	Page 146	
	Dial Plan	Dial Plan (max 1000 columns) <sup>3</sup>		✓	Page 147	
Call Even If Dial Plan Does Not Match <sup>3</sup>			✓	Page 147		

#### 4.1 Web User Interface Setting List

Menu Item	Section Title	Setting	Access Level <sup>*1</sup>		Ref.
			U	A	
Hotline Settings	Hotline	Enable <sup>*3</sup>		✓	Page 148
		Hotline Number <sup>*3</sup>	✓	✓	Page 148
		Hotline Delay <sup>*3</sup>		✓	Page 148
Flexible Key Settings	Flexible Key Settings	No. 1–24	–	–	–
		Type <sup>*3</sup>	✓	✓	Page 149
		Parameter <sup>*3</sup>	✓	✓	Page 149
		Label Name <sup>*3</sup>	✓	✓	Page 149
Tone Settings	Dial Tone	Tone Frequencies		✓	Page 150
		Tone Timings <sup>*3</sup>		✓	Page 151
	Busy Tone	Tone Frequencies		✓	Page 151
		Tone Timings <sup>*3</sup>		✓	Page 151
	Ringing Tone	Tone Frequencies		✓	Page 152
		Tone Timings <sup>*3</sup>		✓	Page 152
	Stutter Tone	Tone Frequencies		✓	Page 152
		Tone Timings		✓	Page 153
	Reorder Tone	Tone Frequencies		✓	Page 153
		Tone Timings <sup>*3</sup>		✓	Page 153
Import Phonebook	Import Phonebook	File Name	✓	✓	Page 154
Export Phonebook	Export Phonebook	–	✓	✓	Page 155
DSS Console	DSS 1-5 Key	No. 1–200 <sup>*4</sup>	–	–	–
		Type <sup>*3</sup>	✓	✓	Page 156
		Parameter <sup>*3</sup>	✓	✓	Page 157
		Label Name <sup>*3</sup>	✓	✓	Page 157

<sup>\*1</sup> The access levels are abbreviated as follows:

U: User; A: Administrator

A check mark indicates that the setting is available for that access level.

<sup>\*2</sup> This setting can also be configured through phone user interface programming.

<sup>\*3</sup> This setting can also be configured through configuration file programming.

<sup>\*4</sup> Each DSS console supports 40 keys. DSS console 1 uses keys 1-40, DSS console 2 uses keys 41-80, etc.

## Maintenance

Menu Item	Section Title	Setting	Access Level <sup>1</sup>		Ref.
			U	A	
Provisioning Maintenance	Provisioning Maintenance	Standard File URL <sup>2</sup>		✓	Page 158
		Product File URL <sup>2</sup>		✓	Page 158
		Master File URL <sup>2</sup>		✓	Page 158
		Cyclic Auto Resync <sup>2</sup>		✓	Page 159
		Resync Interval <sup>2</sup>		✓	Page 159
		Time Resync <sup>2</sup>		✓	Page 159
		Header Value for Resync Event <sup>2</sup>		✓	Page 159
Firmware Maintenance	Firmware Maintenance	Enable Firmware Update <sup>2</sup>		✓	Page 160
		Firmware File URL <sup>2</sup>		✓	Page 160
Upgrade Firmware	Upgrade Firmware	File Name		✓	Page 161
Export Logging File	Export Logging File	Logging File Type		✓	Page 162
Reset to Defaults	Reset to Carrier Defaults	The following settings will be reset to carrier default values when you click <b>[Reset to Carrier Defaults]</b> .		✓	Page 162
Restart	Restart	Click <b>[Restart]</b> to proceed. Restarting will take a few moments.		✓	Page 162

<sup>1</sup> The access levels are abbreviated as follows:

U: User; A: Administrator

A check mark indicates that the setting is available for that access level.

<sup>2</sup> This setting can also be configured through configuration file programming.

## 4.2 Status

This section provides detailed descriptions about all the settings classified under the **[Status]** tab.

## 4.2.1 Version Information

This screen allows you to view the current version information such as the model number and the firmware version of the unit.

**Panasonic**  
KX-HDV230

Web Port Close

Status | Network | System | VoIP | Telephone | Maintenance

**Version Information**

Status

- Version Information
- Network Status
- VoIP Status

Version Information	
Model	KX-HDV230
Operating Bank	Bank2
IPL Version	00.001
Firmware Version	Bank1: 01.100 Bank2: 01.151

### 4.2.1.1 Version Information

#### Model

<b>Description</b>	Indicates the model number of the unit (reference only).
<b>Value Range</b>	Model number

#### Operating Bank

<b>Description</b>	Indicates the storage area of the firmware that is currently operating (reference only).
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Bank1</li> <li>Bank2</li> </ul>

#### IPL Version

<b>Description</b>	Indicates the version of the IPL (Initial Program Load) that runs when starting the unit (reference only).
<b>Value Range</b>	IPL version ("nn.nnn" [n=0–9])

#### Firmware Version

<b>Description</b>	Indicates the version of the firmware that is currently installed on the unit (reference only).
<b>Value Range</b>	Bank1 (Bank2): Firmware version ("nn.nnn" [n=0–9])

## 4.2.2 Network Status

This screen allows you to view the current network information of the unit, such as the MAC address, IP address, Ethernet port status, etc.

Clicking **[Refresh]** updates the information displayed on the screen.

The screenshot shows the Panasonic KX-HDV230 web interface. The 'Status' tab is selected in the navigation menu. The 'Network Status' page is displayed, featuring a 'Refresh' button and a 'Web Port Close' button. The main content area is divided into two sections: 'Network Common' and 'IPv4'. The 'Network Common' section displays the following information:

Network Common	
MAC Address	
Ethernet Link Status	Connected
IP Address Mode	IPv4

The 'IPv4' section displays the following information:

IPv4	
Connection Mode	DHCP
IP Address	192.168.11.3
Subnet Mask	255.255.255.0
Default Gateway	192.168.11.1
DNS1	192.168.11.1
DNS2	

### 4.2.2.1 Network Common

#### MAC Address

<b>Description</b>	Indicates the MAC address of the unit (reference only).
<b>Value Range</b>	Not applicable.

#### Ethernet Link Status

<b>Description</b>	Indicates when either the Ethernet LAN port or the Ethernet PC port is connected (reference only).
<b>Value Range</b>	Connected

#### IP Address Mode

<b>Description</b>	Indicates the current IP Address Mode.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• IPv4</li> <li>• IPv6</li> <li>• IPv4&amp;IPv6</li> </ul>

## 4.2.2.2 IPv4

### Connection Mode

<b>Description</b>	Indicates whether the IP address of the unit is assigned automatically (DHCP) or manually (static) (reference only).
<b>Value Range</b>	<ul style="list-style-type: none"><li>• DHCP</li><li>• Static</li></ul>

### IP Address

<b>Description</b>	Indicates the currently assigned IP address of the unit (reference only).
<b>Value Range</b>	IP address

### Subnet Mask

<b>Description</b>	Indicates the specified subnet mask for the unit (reference only).
<b>Value Range</b>	Subnet mask

### Default Gateway

<b>Description</b>	Indicates the specified IP address of the default gateway for the network (reference only).  <b>Note</b> <ul style="list-style-type: none"><li>• If the default gateway address is not specified, this field will be left blank.</li></ul>
<b>Value Range</b>	IP address of the default gateway

### DNS1

<b>Description</b>	Indicates the specified IP address of the primary DNS server (reference only).  <b>Note</b> <ul style="list-style-type: none"><li>• If the primary DNS server address is not specified, this field will be left blank.</li></ul>
<b>Value Range</b>	IP address of the primary DNS server



## DNS2

<b>Description</b>	Indicates the specified IP address of the secondary DNS server (reference only).  <b>Note</b> <ul style="list-style-type: none"> <li>If the secondary DNS server address is not specified, this field will be left blank.</li> </ul>
<b>Value Range</b>	IP address of the secondary DNS server

### 4.2.2.3 IPv6

#### Connection Mode

<b>Description</b>	Indicates whether the IP address of the unit is assigned automatically (DHCP) or manually (static) (reference only).
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Static</li> <li>DHCP</li> <li>Stateless Autoconfiguration</li> </ul>

#### IP Address

<b>Description</b>	Indicates the currently assigned IP address of the unit (reference only).
<b>Value Range</b>	IP address

#### Prefix

<b>Description</b>	Indicates the prefix for IPv6.
<b>Value Range</b>	0–128

#### Default Gateway

<b>Description</b>	Indicates the specified IP address of the default gateway for the network (reference only).  <b>Note</b> <ul style="list-style-type: none"> <li>If the default gateway address is not specified, this field will be left blank.</li> </ul>
<b>Value Range</b>	IP address of the default gateway

## DNS1

<b>Description</b>	Indicates the specified IP address of the primary DNS server (reference only).  <b>Note</b> <ul style="list-style-type: none"> <li>If the primary DNS server address is not specified, this field will be left blank.</li> </ul>
<b>Value Range</b>	IP address of the primary DNS server

## DNS2

<b>Description</b>	Indicates the specified IP address of the secondary DNS server (reference only).  <b>Note</b> <ul style="list-style-type: none"> <li>If the secondary DNS server address is not specified, this field will be left blank.</li> </ul>
<b>Value Range</b>	IP address of the secondary DNS server

### 4.2.2.4 VLAN

#### Setting Mode

<b>Description</b>	Indicates the specified VLAN feature (reference only).
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Disable</li> <li>LLDP</li> <li>Manual</li> </ul>

#### LAN Port VLAN ID

<b>Description</b>	Indicates the VLAN ID (reference only) for the IP Phone.
<b>Value Range</b>	0–4094

#### LAN Port VLAN Priority

<b>Description</b>	Indicates the priority number (reference only) for the IP Phone.
<b>Value Range</b>	0–7

#### PC Port VLAN ID

<b>Description</b>	Indicates the VLAN ID (reference only) for the PC.
--------------------	--

Value Range	0–4094
-------------	--------

## PC Port VLAN Priority

Description	Indicates the priority number (reference only) for the PC.
Value Range	0–7

## 4.2.3 VoIP Status

This screen allows you to view the current VoIP status of each line's unit. Clicking **[Refresh]** updates the information displayed on the screen.

**Panasonic**  
KX-HDV230

Navigation: Status (selected), Network, System, VoIP, Telephone, Maintenance

Web Port Close

**VoIP Status** Refresh

Line No.	Phone Number	VoIP Status
1	1000	Registered
2	2000	Registering

### 4.2.3.1 VoIP Status

#### Line No. (1–6)

Description	Indicates the line number to which a phone number is assigned (reference only).
Value Range	Line 1–Line 6

#### Phone Number

Description	Indicates the currently assigned phone numbers (reference only). <b>Note</b> <ul style="list-style-type: none"> <li>The corresponding field is blank if a line has not yet been leased or if the unit has not been configured.</li> </ul>
Value Range	Max. 32 digits

#### VoIP Status

Description	Indicates the current VoIP status of each line (reference only).
-------------	--

### 4.3.1 Basic Network Settings

---

<b>Value Range</b>	<ul style="list-style-type: none"><li>• Registered: The unit has been registered to the SIP server, and the line can be used.</li><li>• Registering: The unit is being registered to the SIP server, and the line cannot be used.</li><li>• Blank: The line has not been leased, the unit has not been configured yet, or a SIP authentication failure has occurred.</li></ul> <p><b>Note</b></p> <ul style="list-style-type: none"><li>• Immediately after starting up the unit, the phone numbers of the lines will be displayed, but the status of the line may not be displayed because the unit is still being registered to the SIP server. To display the status, wait about 30 to 60 seconds, and then click <b>[Refresh]</b> to obtain updated status information.</li></ul>
--------------------	---

## 4.3 Network

---

This section provides detailed descriptions about all the settings classified under the **[Network]** tab.

### 4.3.1 Basic Network Settings

This screen allows you to change basic network settings such as whether to use a DHCP server, and the IP address of the unit.

**Note**

- Changes to the settings on this screen are applied when the message "Complete" appears after clicking **[Save]**. Because the IP address of the unit will probably be changed if you change these settings, you will not be able to continue using the Web user interface. To continue configuring the unit from the Web user interface, log in to the Web user interface again after confirming the newly assigned IP address of the unit using the phone user interface. In addition, if the IP address of the PC from which you try to access the Web user interface has been changed, close the Web port once by selecting "OFF" for

"Embedded Web" on the unit (→ see **Opening/Closing the Web Port** in 1.1.6.3 **Before Accessing the Web User Interface**).

**Panasonic**  
KX-HDV230

Status **Network** System VoIP Telephone Maintenance

Web Port Close

**Basic Network Settings**

**Network**

- Basic Network Settings
- Ethernet Port Settings
- HTTP Client Settings
- STUN Settings
- Multicast Paging Settings
- LDAP Settings
- Extended Service Settings
- UC Settings
- XML Application Settings
- ACD Settings
- Call Center Settings

**IP Addressing Mode**

IP Addressing Mode  IPv4  IPv6  IPv4 & IPv6

**IPv4**

Connection Mode  DHCP  Static

DHCP Host Name [MODEL]

IP Address 192.168.0.123

Subnet Mask 255.255.255.0

Default Gateway 192.168.0.10

Auto DNS via DHCP  Yes  No

DNS1

DNS2

### 4.3.1.1 IP Addressing Mode

#### IP Addressing Mode

<b>Description</b>	Selects the IP addressing mode.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>IPv4</li> <li>IPv6</li> <li>IPv4&amp;IPv6</li> </ul>
<b>Default Value</b>	IPv4
<b>Configuration File Reference</b>	IP_ADDR_MODE (Page 186)

### 4.3.1.2 IPv4

#### Connection Mode

<b>Description</b>	Selects the IP address setting mode for IPv4.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>DHCP</li> <li>Static</li> </ul>
<b>Default Value</b>	DHCP
<b>Configuration File Reference</b>	CONNECTION_TYPE (Page 186)

## DHCP Host Name

<b>Description</b>	Specifies the host name to option12 in DHCPv4 or option15 in DHCPv6.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when <b>[Connection Mode]</b> is set to <b>[DHCP]</b>.</li> </ul>
<b>Value Range</b>	Max. 64 characters
<b>Default Value</b>	{MODEL}
<b>Configuration File Reference</b>	DHCP_HOST_NAME (Page 188)

## IP Address

<b>Description</b>	Specifies the IP address for IPv4.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when <b>[Connection Mode]</b> is set to <b>[Static]</b>.</li> </ul>
<b>Value Range</b>	Max. 15 characters n.n.n.n [n=0–255]
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	STATIC_IP_ADDRESS (Page 186)

## Subnet Mask

<b>Description</b>	Specifies the subnet mask for IPv4.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when <b>[Connection Mode]</b> is set to <b>[Static]</b>.</li> </ul>
<b>Value Range</b>	Max. 15 characters n.n.n.n [n=0–255]
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	STATIC_SUBNET (Page 186)

## Default Gateway

<b>Description</b>	Specifies the default gateway for IPv4.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when <b>[Connection Mode]</b> is set to <b>[Static]</b>.</li> </ul>
<b>Value Range</b>	Max. 15 characters n.n.n.n [n=0–255]

<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	STATIC_GATEWAY (Page 187)

## Auto DNS via DHCP

<b>Description</b>	Selects whether to enable or disable the DNS server obtained by DHCPv4.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when <b>[Connection Mode]</b> is set to <b>[DHCP]</b>.</li> </ul>
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Yes: Use DNS obtained by DHCPv4</li> <li>No: Not use (use static DNS)</li> </ul>
<b>Default Value</b>	Yes
<b>Configuration File Reference</b>	DHCP_DNS_ENABLE (Page 188)

## DNS1

<b>Description</b>	Specifies the IP address of primary DNS server for IPv4.
<b>Value Range</b>	Max. 15 characters n.n.n.n [n=0–255]
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	USER_DNS1_ADDR (Page 187)

## DNS2

<b>Description</b>	Specifies the IP address of secondary DNS server for IPv4.
<b>Value Range</b>	Max. 15 characters n.n.n.n [n=0–255]
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	USER_DNS2_ADDR (Page 188)

### 4.3.1.3 IPv6

#### Connection Mode

<b>Description</b>	Selects the IP address setting mode for IPv6.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>DHCP</li> <li>Static</li> <li>Stateless Autoconfiguration</li> </ul>

### 4.3.1 Basic Network Settings

---

<b>Default Value</b>	DHCP
<b>Configuration File Reference</b>	CONNECTION_TYPE_IPV6 (Page 189)

## IP Address

---

<b>Description</b>	Specifies the IP address for IPv6. <b>Note</b> <ul style="list-style-type: none"><li>This setting is available only when <b>[Connection Mode]</b> is set to <b>[Static]</b>.</li></ul>
<b>Value Range</b>	Max. 39 characters n:n:n:n:n:n:n [n=0-FFFF, abbreviation available]
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	STATIC_IP_ADDRESS_IPV6 (Page 189)

## Prefix

---

<b>Description</b>	Specifies the prefix for IPv6. <b>Note</b> <ul style="list-style-type: none"><li>This setting is available only when <b>[Connection Mode]</b> is set to <b>[Static]</b>.</li></ul>
<b>Value Range</b>	0–128
<b>Default Value</b>	64
<b>Configuration File Reference</b>	PREFIX_IPV6 (Page 189)

## Default Gateway

---

<b>Description</b>	Specifies the default gateway for IPv6. <b>Note</b> <ul style="list-style-type: none"><li>This setting is available only when <b>[Connection Mode]</b> is set to <b>[Static]</b>.</li></ul>
<b>Value Range</b>	Max. 39 characters n:n:n:n:n:n:n [n=0-FFFF, abbreviation available]
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	STATIC_GATEWAY_IPV6 (Page 189)



## Auto DNS via DHCP

<b>Description</b>	Selects whether to enable or disable the DNS server obtained by DHCPv6.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when <b>[Connection Mode]</b> is set to <b>[DHCP]</b>.</li> </ul>
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Yes: Use DNS obtained by DHCPv6</li> <li>No: Not use (use static DNS)</li> </ul>
<b>Default Value</b>	Yes
<b>Configuration File Reference</b>	DHCP_DNS_ENABLE_IPV6 (Page 190)

## DNS1

<b>Description</b>	Specifies the IP address of primary DNS server for IPv6.
<b>Value Range</b>	Max. 39 characters n:n:n:n:n:n [n=0-FFFF, abbreviation available]
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	USER_DNS1_ADDR_IPV6 (Page 190)

## DNS2

<b>Description</b>	Specifies the IP address of secondary DNS server for IPv6.
<b>Value Range</b>	Max. 39 characters n:n:n:n:n:n [n=0-FFFF, abbreviation available]
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	USER_DNS2_ADDR_IPV6 (Page 190)

## 4.3.2 Ethernet Port Settings

This screen allows you to change the connection mode of the Ethernet ports, LLDP and the VLAN settings.

## 4.3.2 Ethernet Port Settings

### Note

- When you change the settings on this screen and click **[Save]**, after the message "Complete" has been displayed, the unit will restart automatically with the new settings applied. If a unit is on a call when "Complete" has been displayed, the unit will restart after the unit returns to idle.

**Panasonic**  
KX-HDV230

Status **Network** System VoIP Telephone Maintenance

Web Port Close

### Ethernet Port Settings

**Network**

- Basic Network Settings
- Ethernet Port Settings**
- HTTP Client Settings
- STUN Settings
- Multicast Paging Settings
- LDAP Settings
- Extended Service Settings
- UC Settings
- XML Application Settings
- ACD Settings
- Call Center Settings

**Link Speed/Duplex Mode**

LAN Port: Auto Negotiation

PC Port: Auto Negotiation

**LLDP**

Enable LLDP:  Yes  No

Packet Interval: 30 seconds [1-3600]

PC VLAN ID: 1 [1-4094]

PC Priority: 0

**VLAN**

Enable VLAN:  Yes  No

### 4.3.2.1 Link Speed/Duplex Mode

#### LAN Port

<b>Description</b>	Selects the connection mode (link speed and duplex mode) of the LAN port.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Auto Negotiation</li> <li>100Mbps/Full Duplex</li> <li>100Mbps/Half Duplex</li> <li>10Mbps/Full Duplex</li> <li>10Mbps/Half Duplex</li> </ul>
<b>Default Value</b>	Auto Negotiation
<b>Configuration File Reference</b>	PHY_MODE_LAN (Page 190)

#### PC Port

<b>Description</b>	Selects the connection mode (link speed and duplex mode) of the PC port.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Auto Negotiation</li> <li>100Mbps/Full Duplex</li> <li>100Mbps/Half Duplex</li> <li>10Mbps/Full Duplex</li> <li>10Mbps/Half Duplex</li> </ul>

Default Value	Auto Negotiation
Configuration File Reference	PHY_MODE_PC (Page 191)

### 4.3.2.2 LLDP

#### Enable LLDP

Description	Selects whether to enable or disable the LLDP-MED feature.  <b>Note</b> <ul style="list-style-type: none"> <li>You should specify "Yes" for only one of "Enable LLDP", or "Enable VLAN".</li> <li>If "Yes" is specified for two or more of the parameters above, the settings are prioritized as follows: "Enable VLAN" &gt; "Enable LLDP". Therefore, if "Yes" is specified for both "Enable VLAN" and "Enable LLDP", the VLAN-related settings are used.</li> </ul>
Value Range	<ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>
Default Value	Yes
Configuration File Reference	LLDP_ENABLE (Page 192)

#### Packet Interval

Description	Specifies the interval, in seconds, between sending each LLDP frame.
Value Range	1–3600
Default Value	30
Configuration File Reference	LLDP_INTERVAL (Page 193)

#### PC VLAN ID

Description	Specifies the VLAN ID for the PC when LLDP is on.
Value Range	0–4094
Default Value	0
Configuration File Reference	LLDP_VLAN_ID_PC (Page 193)

#### PC Priority

Description	Specifies the VLAN Priority for the PC when LLDP is on.
Value Range	0–7

### 4.3.2 Ethernet Port Settings

---

Default Value	0
Configuration File Reference	LLDP_VLAN_PRI_PC (Page 193)

### 4.3.2.3 VLAN

#### Enable VLAN

Description	Selects whether to use the VLAN feature to perform VoIP communication securely.  <b>Note</b> <ul style="list-style-type: none"><li>You should specify "Yes" for only one of "Enable LLDP", or "Enable VLAN".</li><li>If "Yes" is specified for two or more of the parameters above, the settings are prioritized as follows: "Enable VLAN" &gt; "Enable LLDP". Therefore, if "Yes" is specified for both "Enable VLAN" and "Enable LLDP", the VLAN-related settings are used.</li></ul>
Value Range	<ul style="list-style-type: none"><li>Yes</li><li>No</li></ul>
Default Value	No
Configuration File Reference	VLAN_ENABLE (Page 191)

#### IP Phone VLAN ID

Description	Specifies the VLAN ID for the IP Phone.
Value Range	0–4094
Default Value	2
Configuration File Reference	VLAN_ID_IP_PHONE (Page 191)

#### IP Phone Priority

Description	Selects the priority for the IP Phone.
Value Range	0–7
Default Value	7
Configuration File Reference	VLAN_PRI_IP_PHONE (Page 192)

#### PC VLAN ID

Description	Specifies the VLAN ID for the PC.
-------------	-----------------------------------

<b>Value Range</b>	0–4094
<b>Default Value</b>	1
<b>Configuration File Reference</b>	VLAN_ID_PC (Page 192)

## PC Priority

<b>Description</b>	Selects the priority for the PC.
<b>Value Range</b>	0–7
<b>Default Value</b>	0
<b>Configuration File Reference</b>	VLAN_PRI_PC (Page 192)

## 4.3.3 HTTP Client Settings

This screen allows you to change the HTTP client settings for the unit in order to access the HTTP server of your phone system and download configuration files.

**Panasonic**  
KX-HDV230

Status **Network** System VoIP Telephone Maintenance

Web Port Close

**Network**

- Basic Network Settings
- Ethernet Port Settings
- HTTP Client Settings**
- STUN Settings
- Multicast Paging Settings
- LDAP Settings
- Extended Service Settings
- UC Settings
- XML Application Settings
- ACD Settings
- Call Center Settings

### HTTP Client Settings

**HTTP Client**

HTTP Version:  HTTP/1.0  HTTP/1.1

HTTP User Agent: Panasonic\_{MODEL}/{fwver} ({mac})

Authentication ID:

Authentication Password:

**Proxy Server**

Enable Proxy:  Yes  No

Proxy Server Address:

Proxy Server Port: 8080 [1-65535]

Save Cancel

### 4.3.3.1 HTTP Client

#### HTTP Version

<b>Description</b>	Selects which version of the HTTP protocol to use for HTTP communication.
--------------------	---

### 4.3.3 HTTP Client Settings

---

<b>Value Range</b>	<ul style="list-style-type: none"><li>• HTTP/1.0</li><li>• HTTP/1.1</li></ul> <p><b>Note</b></p> <ul style="list-style-type: none"><li>• For this unit, it is strongly recommended that you select <b>[HTTP/1.0]</b>. However, if the HTTP server does not function well with HTTP/1.0, try changing the setting <b>[HTTP/1.1]</b>.</li></ul>
<b>Default Value</b>	HTTP/1.0
<b>Configuration File Reference</b>	HTTP_VER (Page 200)

## HTTP User Agent

---

<b>Description</b>	Specifies the text string to send as the user agent in the header of HTTP requests.
<b>Value Range</b>	Max. 64 characters <p><b>Note</b></p> <ul style="list-style-type: none"><li>• If "{mac}" is included in this parameter, it will be replaced with the unit's MAC address in lower-case.</li><li>• If "{MAC}" is included in this parameter, it will be replaced with the unit's MAC address in upper-case.</li><li>• If "{MODEL}" is included in this parameter, it will be replaced with the unit's model name.</li><li>• If "{fwver}" is included in this parameter, it will be replaced with the firmware version of the unit.</li></ul>
<b>Default Value</b>	Panasonic_{MODEL}/{fwver} ({mac})
<b>Configuration File Reference</b>	HTTP_USER_AGENT (Page 200)

## Authentication ID

---

<b>Description</b>	Specifies the ID for the User account. If set, this name must be entered to access the Web user interface at the User access level.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	HTTP_AUTH_ID (Page 201)

## Authentication Password

---

<b>Description</b>	Specifies the password for the User account. If set, this password must be entered to access the Web user interface at the User access level.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	HTTP_AUTH_PASS (Page 201)

## 4.3.3.2 Proxy Server

### Enable Proxy

<b>Description</b>	Selects whether to enable or disable the HTTP proxy feature.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	HTTP_PROXY_ENABLE (Page 201)

### Proxy Server Address

<b>Description</b>	Specifies the IP address or FQDN of the proxy server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	HTTP_PROXY_ADDR (Page 202)

### Proxy Server Port

<b>Description</b>	Specifies the port number of the proxy server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	8080
<b>Configuration File Reference</b>	HTTP_PROXY_PORT (Page 202)

## 4.3.4 STUN Settings

This screen allows you to change the STUN Settings.

The screenshot shows the Panasonic KX-HDV230 web interface. At the top, there are navigation tabs: Status, Network (highlighted), System, VoIP, Telephone, and Maintenance. Below the tabs, the page title is 'STUN Settings'. On the left, there is a sidebar with a 'Web Port Close' button and a 'Network' section containing various settings like Basic Network Settings, Ethernet Port Settings, HTTP Client Settings, STUN Settings (highlighted), Multicast Paging Settings, LDAP Settings, Xtended Service Settings, UC Settings, XML Application Settings, ACD Settings, and Call Center Settings. The main content area is titled 'STUN' and contains three input fields: 'Server Address' (empty), 'Port' (3478) with a range indicator [1-65535], and 'Binding Interval' (300) with a unit 'seconds' and a range indicator [60-86400]. At the bottom of the form are 'Save' and 'Cancel' buttons.

### 4.3.4.1 STUN

STUN: Simple Traversal of UDP through NATs

#### Server Address

<b>Description</b>	Specifies the host name or IP address of the STUN server for the CPE to send Binding Requests.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	STUN_SERV_ADDR (Page 239)

#### Port

<b>Description</b>	Specifies the port number of the STUN server for the CPE to send Binding Requests.
<b>Value Range</b>	1–65535
<b>Default Value</b>	3478
<b>Configuration File Reference</b>	STUN_SERV_PORT (Page 239)



## Binding Interval

<b>Description</b>	Specifies the interval of the sending binding request.
<b>Value Range</b>	60–86400
<b>Default Value</b>	300
<b>Configuration File Reference</b>	STUN_INTVL (Page 240)

## 4.3.5 Multicast Paging Settings

This screen allows you to change the Multicast Paging Settings for each channel Group.

The screenshot shows the Panasonic KX-HDV230 web interface. The 'Network' tab is selected. The 'Multicast Paging Settings' page is displayed, showing settings for Group 5 and Group 4. The settings include IPv4 Address, IPv6 Address, Port, Label, and Enable Transmission (Yes/No).

Multicast Paging		
Group 5	IPv4 Address	[224.0.0.0-239.255.255.255]
	IPv6 Address	[FF00::/8]
	Port	0 [0-65535, 0:Disable]
	Label	
	Enable Transmission	<input type="radio"/> Yes <input checked="" type="radio"/> No
Group 4	IPv4 Address	[224.0.0.0-239.255.255.255]
	IPv6 Address	[FF00::/8]
	Port	0 [0-65535, 0:Disable]
	Label	
	Enable Transmission	<input type="radio"/> Yes <input checked="" type="radio"/> No
	IPv4 Address	[224.0.0.0-239.255.255.255]

### 4.3.5.1 Multicast Paging

#### IPv4 Address (Group 1–5)

<b>Description</b>	Specifies the address for multi-cast paging for each channel group. {Priority: Group 5 > Group 4 > Group 3, Group2, Group1 (depending on the configuration)}
<b>Value Range</b>	224.0.0.0–239.255.255.255
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	MPAGE_ADDRm (Page 228)

## IPv6 Address (Group 1–5)

<b>Description</b>	Specifies the IPv6 address for multi-cast paging for each channel group. {Priority: Group 5 > Group 4 > Group 3, Group2, Group1 (depending on the configuration)}
<b>Value Range</b>	FF00::/8
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	MPAGE_IPV6_ADDRm (Page 228)

## Port (Group 1–5)

<b>Description</b>	Specifies the port number for multi-cast paging for each channel group.
<b>Value Range</b>	0–65535 0: Disable
<b>Default Value</b>	0
<b>Configuration File Reference</b>	MPAGE_PORTm (Page 228)

## Priority (Group 1–3)

<b>Description</b>	Selects the priority of the low priority channel group. The priority of multi-cast paging group1-3 is lower than the talking. Priority 4 is higher than Priority 5.
<b>Value Range</b>	4, 5
<b>Default Value</b>	5
<b>Configuration File Reference</b>	MPAGE_PRIORITYm (Page 229)

## Label (Group 1–5)

<b>Description</b>	Specifies a label for each channel group.
<b>Value Range</b>	Max. 24 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	MPAGE_LABELm (Page 229)

## Enable Transmission (Group 1–5)

<b>Description</b>	Selects the sending multi-cast paging.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No

## 4.3.6 LDAP Settings

This screen allows you to change the LDAP Settings.

The screenshot displays the Panasonic KX-HDV230 web interface. At the top, the 'Network' tab is selected. The left sidebar contains a 'Network' menu with 'LDAP Settings' highlighted. The main area is titled 'LDAP Settings' and contains the following fields:

- Enable LDAP:  Yes  No
- Server Address: [Text input field]
- Port: 389 [1-65535]
- User ID: [Text input field]
- Password: [Masked text input field]
- Max Hits: 20 [20-500]
- Name Filter: ((cn=%)(sn=%))
- Number Filter: ((telephoneNumber=%)(mobile=%)(homePhone
- Name Attributes: cn,sn
- Number Attributes: telephoneNumber,mobile,homePhone
- Display Name: [Text input field]
- Enable DNS SRV lookup:  Yes  No

Buttons for 'Save' and 'Cancel' are located at the bottom of the form.

### 4.3.6.1 LDAP

#### Enable LDAP

<b>Description</b>	Selects whether to enable or disable the LDAP service.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	LDAP_ENABLE (Page 219)

#### Server Address

<b>Description</b>	Specifies the server host of LDAP.
<b>Value Range</b>	Max. 256 characters

### 4.3.6 LDAP Settings

---

<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	LDAP_SERVER (Page 219)

## Port

---

<b>Description</b>	Specifies the port of server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	389
<b>Configuration File Reference</b>	LDAP_SERVER_PORT (Page 220)

## User ID

---

<b>Description</b>	Specifies the authentication ID required to access the LDAP server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	LDAP_USERID (Page 220)

## Password

---

<b>Description</b>	Specifies the authentication password required to access the LDAP server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	LDAP_PASSWORD (Page 221)

## Max Hits

---

<b>Description</b>	Specifies the maximum number of search results to be returned by the LDAP server.
<b>Value Range</b>	20–500
<b>Default Value</b>	20
<b>Configuration File Reference</b>	LDAP_MAXRECORD (Page 220)

## Name Filter

---

<b>Description</b>	Specifies the name filter which is the search criteria for name look up.
<b>Value Range</b>	Max. 256 characters

<b>Default Value</b>	((cn=%)(sn=%))
<b>Configuration File Reference</b>	LDAP_NAME_FILTER (Page 221)

## Number Filter

<b>Description</b>	Specifies the number filter which is the search criteria for number look up.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	((telephoneNumber=%)(mobile =%)(homePhone =%))
<b>Configuration File Reference</b>	LDAP_NUMB_FILTER (Page 221)

## Name Attributes

<b>Description</b>	Specifies the name attributes of each record which are to be returned in the LDAP search result.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	cn,sn
<b>Configuration File Reference</b>	LDAP_NAME_ATTRIBUTE (Page 221)

## Number Attributes

<b>Description</b>	Specifies the number attributes of each record which are to be returned in the LDAP search result.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	telephoneNumber,mobile,homePhone
<b>Configuration File Reference</b>	LDAP_NUMB_ATTRIBUTE (Page 222)

## Display Name

<b>Description</b>	Specifies the entry information on the screen.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	LDAP_BASEDN (Page 222)

## Enable DNS SRV lookup

<b>Description</b>	Selects whether to request the DNS server to translate domain names into IP addresses using the SRV record.
--------------------	---

### 4.3.7 Xtended Service Settings

<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	LDAP_DNSSRV_ENABLE (Page 219)

## 4.3.7 Xtended Service Settings

This screen allows you to change the Xtended Service Settings.

The screenshot shows the Panasonic KX-HDV230 web interface. The 'Network' tab is selected, and the 'Xtended Service Settings' menu item is highlighted. The settings are as follows:

Xtended Service	
Enable Xtended Service	<input type="radio"/> Yes <input checked="" type="radio"/> No
Server Address	<input type="text"/>
Port	80 [1-65535]
Protocol	<input checked="" type="radio"/> HTTP <input type="radio"/> HTTPS
Line 1	<ul style="list-style-type: none"> <li>User ID: <input type="text"/></li> <li>Password: <input type="password"/></li> <li>Enable Phonebook: <input type="radio"/> Yes <input checked="" type="radio"/> No</li> <li>Phonebook Type: Group</li> <li>Enable Call Log: <input type="radio"/> Yes <input checked="" type="radio"/> No</li> </ul>
Line 2	<ul style="list-style-type: none"> <li>User ID: <input type="text"/></li> <li>Password: <input type="password"/></li> <li>Enable Phonebook: <input type="radio"/> Yes <input checked="" type="radio"/> No</li> <li>Phonebook Type: Group</li> <li>Enable Call Log: <input type="radio"/> Yes <input checked="" type="radio"/> No</li> </ul>

### 4.3.7.1 Xtended Service

#### Enable Xtended Service

<b>Description</b>	Selects whether to enable or disable the Xsi service.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	XSI_ENABLE (Page 214)

## Server Address

<b>Description</b>	Specifies the IP address or FQDN of the Xsi server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	XSI_SERVER (Page 215)

## Port

<b>Description</b>	Specifies the port of the Xsi server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	80
<b>Configuration File Reference</b>	XSI_SERVER_PORT (Page 215)

## Protocol

<b>Description</b>	Selects the type of the Xsi server.
<b>Value Range</b>	HTTP, HTTPS
<b>Default Value</b>	HTTP
<b>Configuration File Reference</b>	XSI_SERVER_TYPE (Page 215)

## User ID (Line 1–6)

<b>Description</b>	Specifies the authentication ID required to access the Xsi server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	XSI_USERID_n (Page 215)

## Password (Line 1–6)

<b>Description</b>	Specifies the authentication password required to access the Xsi server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	XSI_PASSWORD_n (Page 216)

## Enable Phonebook (Line 1–6)

<b>Description</b>	Selects whether to enable or disable the Xsi phonebook service.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	XSI_PHONEBOOK_ENABLE_n (Page 216)

## Phonebook Type (Line 1–6)

<b>Description</b>	Selects the type of Xsi phonebook.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Group</li> <li>• GroupCommon</li> <li>• Enterprise</li> <li>• EnterpriseCommon</li> <li>• Personal</li> </ul>
<b>Default Value</b>	Group
<b>Configuration File Reference</b>	XSI_PHONEBOOK_TYPE_n (Page 216)

## Enable Call Log (Line 1–6)

<b>Description</b>	Selects whether to enable or disable the Xsi call log service.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	XSI_CALLLOG_ENABLE_n (Page 216)



## 4.3.8 UC Settings

This screen allows you to change the UC Settings.

**Panasonic**  
KX-HDV230

Status **Network** System VoIP Telephone Maintenance

**UC Settings**

Web Port Close

**Network**

- Basic Network Settings
- Ethernet Port Settings
- HTTP Client Settings
- STUN Settings
- Multicast Paging Settings
- LDAP Settings
- Extended Service Settings
- UC Settings**
- XML Application Settings
- ACD Settings
- Call Center Settings

**Presence Feature**

Enable UC	<input type="radio"/> Yes <input checked="" type="radio"/> No
Server Address	<input type="text"/>
Local XMPP Port	5222 [1-65535]
User ID	<input type="text"/>
Password	••••••••••

Save Cancel

### 4.3.8.1 Presence Feature

#### Enable UC

<b>Description</b>	Selects whether to enable the UC service.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	UC_ENABLE (Page 217)

#### Server Address

<b>Description</b>	Specifies the IP address or FQDN of the XMPP server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	XMPP_SERVER (Page 217)

#### Local XMPP Port

<b>Description</b>	Specifies the local XMPP port.
--------------------	--------------------------------

### 4.3.8 UC Settings

---

<b>Value Range</b>	1–65535
<b>Default Value</b>	5222
<b>Configuration File Reference</b>	XMPP_PORT (Page 218)

## User ID

---

<b>Description</b>	Specifies the authentication ID required to access the UC server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	UC_USERID (Page 217)

## Password

---

<b>Description</b>	Specifies the authentication password required to access the UC server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	UC_PASSWORD (Page 217)

## 4.3.9 XML Application Settings

This screen allows you to configure the various URLs used with the XML application feature.

**Panasonic**  
KX-HDV230

Status **Network** System VoIP Telephone Maintenance

Web Port Close

**XML Application Settings**

**Network**

- Basic Network Settings
- Ethernet Port Settings
- HTTP Client Settings
- STUN Settings
- Multicast Paging Settings
- LDAP Settings
- Extended Service Settings
- UC Settings
- XML Application Settings**
- ACD Settings
- Call Center Settings

**XML Application**

Enable XMLAPP	<input type="radio"/> Yes <input checked="" type="radio"/> No
User ID	<input type="text"/>
Password	<input type="text"/>
Local XML Port	6666 [1-65535]
Bootup URL	<input type="text"/>
Initial URL	<input type="text"/>
Incoming Call URL	<input type="text"/>
Talking URL	<input type="text"/>
Making Call URL	<input type="text"/>
Call Log URL	<input type="text"/>
Idling URL	<input type="text"/>
Enable FF Key	<input type="radio"/> Yes <input checked="" type="radio"/> No

**Shortcut Key Settings**

### 4.3.9.1 XML Application

#### Enable XMLAPP

<b>Description</b>	Selects whether to enable or disable the XML application feature.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	XMLAPP_ENABLE (Page 209)

#### User ID

<b>Description</b>	Specifies the authentication ID required to access the XML application server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	XMLAPP_USERID (Page 210)

## Password

<b>Description</b>	Specifies the authentication password used to access the XML application server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	XMLAPP_USERPASS (Page 210)

## Local XML Port

<b>Description</b>	Specifies the local HTTP port for XML application.
<b>Value Range</b>	1–65535
<b>Default Value</b>	6666
<b>Configuration File Reference</b>	XML_HTTPD_PORT (Page 211)

## Bootup URL

<b>Description</b>	Specifies the URL that is accessed when the unit starts up, to check for XML data.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	XMLAPP_START_URL (Page 212)

## Initial URL

<b>Description</b>	Specifies the URL that is accessed when the application is started from the unit's menu, to check for XML data.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	XMLAPP_INITIAL_URL (Page 212)

## Incoming Call URL

<b>Description</b>	Specifies the URL that is accessed when the unit receives a call, to check for XML data.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	XMLAPP_INCOMING_URL (Page 212)

## Talking URL

<b>Description</b>	Specifies the URL that is accessed when the unit is on a call, to check for XML data.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	XMLAPP_TALKING_URL (Page 212)

## Making Call URL

<b>Description</b>	Specifies the URL that is accessed when the unit makes a call, to check for XML data.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	XMLAPP_MAKECALL_URL (Page 213)

## Call Log URL

<b>Description</b>	Specifies the URL that is accessed when the call log is accessed, to check for XML data.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	XMLAPP_CALLLOG_URL (Page 213)

## Idling URL

<b>Description</b>	Specifies the URL that is accessed when the unit is idle, to check for XML data.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	XMLAPP_IDLING_URL (Page 213)

## Enable FF Key

<b>Description</b>	Specifies whether to enable the XML application or operate the telephone normally, when the corresponding button is pressed.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No

<b>Configuration File Reference</b>	XMLAPP_FFKEY_ENABLE (Page 214)
-------------------------------------	--------------------------------

### 4.3.9.2 Shortcut Key Settings

#### Soft Key A (Left)

<b>Description</b>	Specifies whether to enable the XML application or operate the telephone normally, when the corresponding button is pressed during standby mode.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• Yes</li><li>• No</li></ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	XML_INITIATE_KEY_SOFT1 (Page 213)

#### Soft Key B (Center)

<b>Description</b>	Specifies whether to enable the XML application or operate the telephone normally, when the corresponding button is pressed during standby mode.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• Yes</li><li>• No</li></ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	XML_INITIATE_KEY_SOFT2 (Page 214)

#### Soft Key C (Right)

<b>Description</b>	Specifies whether to enable the XML application or operate the telephone normally, when the corresponding button is pressed during standby mode.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• Yes</li><li>• No</li></ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	XML_INITIATE_KEY_SOFT3 (Page 214)

### 4.3.9.3 XML Phonebook

#### LDAP URL

<b>Description</b>	Specifies the URL that is accessed when the phonebook is accessed, to check for XML data.
<b>Value Range</b>	Max. 256 characters

<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	XMLAPP_LDAP_URL (Page 210)

## User ID

<b>Description</b>	Specifies the authentication ID required to access the LDAP server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	XMLAPP_LDAP_USERID (Page 210)

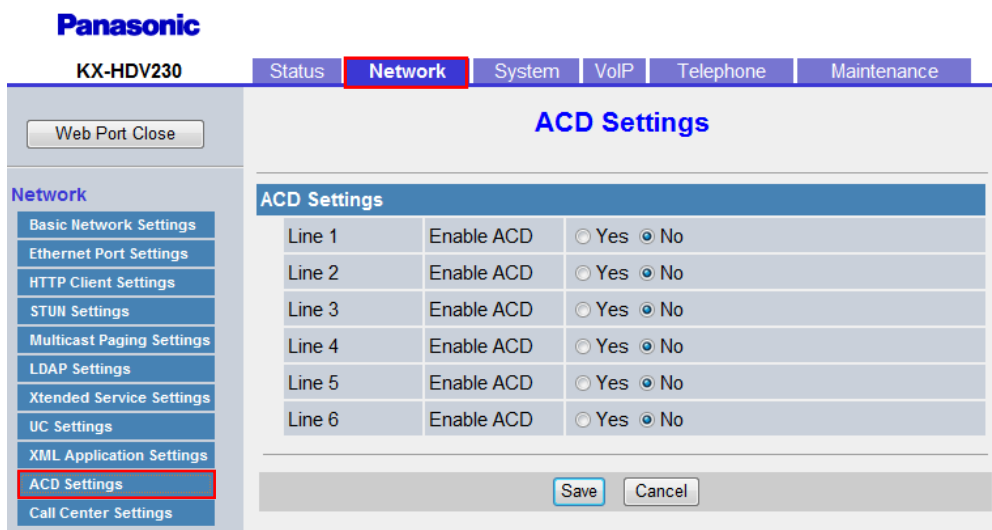
## Password

<b>Description</b>	Specifies the authentication password used to access the LDAP server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	XMLAPP_LDAP_USERPASS (Page 210)

## Max Hits

<b>Description</b>	Specifies the maximum number of search results to be returned by the LDAP server.
<b>Value Range</b>	20–500
<b>Default Value</b>	20
<b>Configuration File Reference</b>	XMLAPP_LDAP_MAXRECORD (Page 211)

## 4.3.10 ACD Settings [Line1]–[Line6]



### Enable ACD

<b>Description</b>	Selects whether to enable the ACD.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	ACD_ENABLE_n (Page 223)



## 4.3.11 Call Center Settings [Line1]–[Line6]

**Panasonic**  
KX-HDV230

Status **Network** System VoIP Telephone Maintenance

Web Port Close

### Call Center Settings

**Network**

- Basic Network Settings
- Ethernet Port Settings
- HTTP Client Settings
- STUN Settings
- Multicast Paging Settings
- LDAP Settings
- Extended Service Settings
- UC Settings
- XML Application Settings
- ACD Settings
- Call Center Settings**

Call Center Settings		
Line 1	Enable Call Center	<input type="radio"/> Yes <input checked="" type="radio"/> No
	Disposition Code	<input type="radio"/> Yes <input checked="" type="radio"/> No
	Customer Originated Trace	<input type="radio"/> Yes <input checked="" type="radio"/> No
	Hoteling Event	<input type="radio"/> Yes <input checked="" type="radio"/> No
	- User ID	<input type="text"/>
	- Password	<input type="text"/>
	Status Event	<input type="radio"/> Yes <input checked="" type="radio"/> No
Line 2	Enable Call Center	<input type="radio"/> Yes <input checked="" type="radio"/> No
	Disposition Code	<input type="radio"/> Yes <input checked="" type="radio"/> No
	Customer Originated Trace	<input type="radio"/> Yes <input checked="" type="radio"/> No
	Hoteling Event	<input type="radio"/> Yes <input checked="" type="radio"/> No

### Enable Call Center

<b>Description</b>	Selects whether to add menu items for Call Center.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	CALL_CENTER_ENABLE_n (Page 223)

### Disposition Code

<b>Description</b>	Selects whether to enable the Disposition Code.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	CC_DISPOSITION_CODE_ENABLE_n (Page 224)

### Customer Originated Trace

<b>Description</b>	Selects whether to enable the Customer Originated Trace.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>

## 4.4 System

---

<b>Default Value</b>	No
<b>Configuration File Reference</b>	CC_CUSTOMER_ORG_TRACE_ENABLE_n (Page 224)

### Hoteling Event

---

<b>Description</b>	Selects whether to enable the Hoteling Event.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• Yes</li><li>• No</li></ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	CC_HOTELING_EVENT_n (Page 225)

### - User ID

---

<b>Description</b>	Specifies the authentication ID required to access the Hoteling service.
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	HOTELING_USERID_n (Page 225)

### - Password

---

<b>Description</b>	Specifies the authentication password required to access the Hoteling service.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	HOTELING_PASSWORD_n (Page 225)

### Status Event

---

<b>Description</b>	Selects whether to enable the Status Event.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• Yes</li><li>• No</li></ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	CC_STATUS_EVENT_ENABLE_n (Page 225)

## 4.4 System

---

This section provides detailed descriptions about all the settings classified under the **[System]** tab.

## 4.4.1 Language Settings

This screen allows you to select the language used for the Web user interface. The language setting is only applicable when you log in to the Web user interface as User.

### Note

- If you change the language while logged in to the Web user interface with the User account, the language will be changed after the message "Complete" is displayed. If you are logged in with the Administrator account, the language will be changed when a user logs in to the Web user interface as User.
- The language used for the Web user interface for the Administrator account is always English.
- The language used for the unit remains unchanged even if the language for the Web user interface is changed.

**Panasonic**  
KX-HDV230

Status | Network | **System** | VoIP | Telephone | Maintenance

Web Port Close

**System**

- Language Settings**
- User Password Settings
- Admin Password Settings
- Time Adjust Settings
- Advanced Settings

**Language Settings**

**Selectable Language**

IP Phone	en,de,es,fr,it,nl,pt,cs	RFC3066 code
Web Language	en,de,es,fr,it,pt,cs	RFC3066 code

**Language Settings**

IP Phone	en
Web Language	en

Save Cancel

### 4.4.1.1 Selectable Language

#### IP Phone

<b>Description</b>	Specifies the selectable language on the unit. Up to 10 languages separated by commas can be registered. (e.g., "en,es,fr,de,it,nl,pt")
--------------------	--

#### 4.4.1 Language Settings

---

<b>Value Range</b>	<ul style="list-style-type: none"><li>• en: English</li><li>• es: Spanish</li><li>• fr: French</li><li>• de: German</li><li>• it: Italian</li><li>• da: Danish</li><li>• nl: Dutch</li><li>• sv: Swedish</li><li>• fi: Finnish</li><li>• el: Greek</li><li>• hu: Hungarian</li><li>• pt: Portuguese</li><li>• pl: Polish</li><li>• sk: Slovakian</li><li>• cs: Czech</li><li>• sh: Croatian</li><li>• ru: Russian</li><li>• uk: Ukrainian</li><li>• tr: Turkish</li><li>• no: Norwegian</li><li>• ro: Romanian</li><li>• ct: Custom</li><li>• kk: Kazakh</li><li>• me: Montenegrin</li></ul>
<b>Default Value</b>	Depends on the country or area.
<b>Configuration File Reference</b>	AVAILABLE_LANGUAGE (Page 237)

#### Web Language

---

<b>Description</b>	Specifies the selectable language on the Web. Up to 10 languages separated by commas can be registered. (e.g., "en,es,fr,de,it,nl,pt")
--------------------	---

<b>Value Range</b>	<ul style="list-style-type: none"> <li>• en: English</li> <li>• es: Spanish</li> <li>• fr: French</li> <li>• de: German</li> <li>• it: Italian</li> <li>• nl: Dutch</li> <li>• el: Greek</li> <li>• hu: Hungarian</li> <li>• pt: Portuguese</li> <li>• pl: Polish</li> <li>• sk: Slovakian</li> <li>• cs: Czech</li> <li>• sh: Croatian</li> <li>• ru: Russian</li> <li>• uk: Ukrainian</li> <li>• tr: Turkish</li> <li>• ro: Romanian</li> <li>• ct: Custom</li> <li>• kk: Kazakh</li> <li>• me: Montenegrin</li> </ul>
<b>Default Value</b>	Depends on the country or area.
<b>Configuration File Reference</b>	AVAILABLE_LANGUAGE_WEB (Page 238)

## 4.4.1.2 Language Settings

### IP Phone

<b>Description</b>	Selects the default language on the unit. You can select a language from the languages set in <b>IP Phone</b> in <b>4.4.1.1 Selectable Language</b> .
<b>Value Range</b>	en, es, fr, de, it, da, nl, sv, fi, el, hu, pt, pl, sk, cs, sh, ru, uk, tr, no, ro, ct, kk, me → see <b>IP Phone</b> in <b>4.4.1.1 Selectable Language</b>
<b>Default Value</b>	en
<b>Configuration File Reference</b>	DEFAULT_LANGUAGE (Page 238)

### Web Language

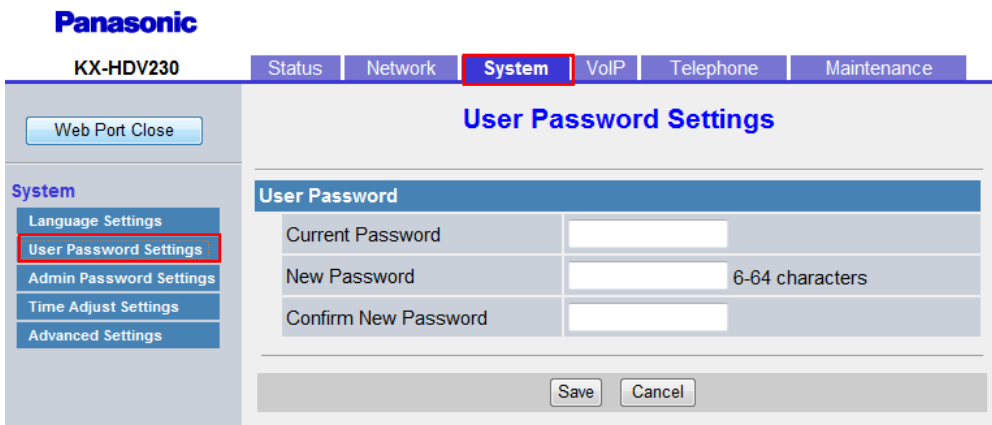
<b>Description</b>	Selects the default language on the web. You can select a language from the languages set in <b>Web Language</b> in <b>4.4.1.1 Selectable Language</b> .
<b>Value Range</b>	en, es, fr, de, it, nl, el, hu, pt, pl, sk, cs, sh, ru, uk, tr, ro, ct, kk, me → see <b>Web Language</b> in <b>4.4.1.1 Selectable Language</b> .
<b>Default Value</b>	en
<b>Configuration File Reference</b>	WEB_LANGUAGE (Page 238)

## 4.4.2 User Password Settings

This screen allows you to change the password used to authenticate the User account when logging in to the Web user interface.

**Note**

- For security reasons, the characters entered for the password are masked by special characters, which differ depending on the Web browser.
- After you change the user password, the next time you access the Web user interface, the authentication dialog box appears. Three consecutive login failures will result in an error ("401 Unauthorized"). This restriction only applies the first time you attempt to log in after changing the password. In all other circumstances, an error occurs after 3 unsuccessful login attempts.



### 4.4.2.1 User Password

#### Current Password

<b>Description</b>	Specifies the current password to use to authenticate the User account when logging in to the Web user interface.
<b>Value Range</b>	6–64 characters (except !, ", #, \$, %, &, ', (, ), *, +, ,, /, :, ;, <, =, >, ?, [, ], ^, `, {,  , }, ~, \ and space)
<b>Default Value</b>	Not stored.

#### New Password

<b>Description</b>	Specifies the new password to use to authenticate the User account when logging in to the Web user interface.
<b>Value Range</b>	6–64 characters (except !, ", #, \$, %, &, ', (, ), *, +, ,, /, :, ;, <, =, >, ?, [, ], ^, `, {,  , }, ~, \ and space)

<b>Default Value</b>	Not stored.  <b>Note</b> <ul style="list-style-type: none"> <li>When a user logs in to the Web user interface for the first time, after clicking <b>OK</b> on the authentication dialog box, the <b>[Initial User Password Settings]</b> screen is displayed automatically to make the user set a password.</li> </ul>
<b>Configuration File Reference</b>	USER_PASS (Page 203)

## Confirm New Password

<b>Description</b>	Specifies the same password that you entered in <b>[New Password]</b> for confirmation.
<b>Value Range</b>	6–64 characters (except !, ", #, \$, %, &, ', (, ), *, +, ,, /, :, ;, <, =, >, ?, [, ], ^, `, {,  , }, ~, \ and space)
<b>Default Value</b>	Not stored.

## 4.4.3 Admin Password Settings

This screen allows you to change the password used to authenticate the Administrator account when logging in to the Web user interface.

### Note

- For security reasons, the characters entered for the password are masked by special characters, which differ depending on the Web browser.
- After you change the administrator password, the next time you access the Web user interface, the authentication dialog box appears. Three consecutive login failures will result in an error ("401 Unauthorized"). This restriction only applies the first time you attempt to log in after changing the password. In all other circumstances, an error occurs after 3 unsuccessful login attempts.

**Panasonic**  
KX-HDV230

Status | Network | **System** | VoIP | Telephone | Maintenance

Web Port Close

**System**

- Language Settings
- User Password Settings
- Admin Password Settings**
- Time Adjust Settings
- Advanced Settings

**Admin Password Settings**

Admin Password

Current Password

New Password  6-64 characters

Confirm New Password

Save Cancel

## 4.4.3.1 Admin Password

### Current Password

<b>Description</b>	Specifies the current password to use to authenticate the Administrator account when logging in to the Web user interface.
<b>Value Range</b>	6–64 characters (except !, ", #, \$, %, &, ', (, ), *, +, ,, /, :, ;, <, =, >, ?, [, ], ^, `, {,  , }, ~, \ and space)
<b>Default Value</b>	adminpass

### New Password

<b>Description</b>	Specifies the new password to use to authenticate the Administrator account when logging in to the Web user interface.
<b>Value Range</b>	6–64 characters (except !, ", #, \$, %, &, ', (, ), *, +, ,, /, :, ;, <, =, >, ?, [, ], ^, `, {,  , }, ~, \ and space)
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	ADMIN_PASS (Page 204)

### Confirm New Password

<b>Description</b>	Specifies the same password that you entered in <b>[New Password]</b> for confirmation.
<b>Value Range</b>	6–64 characters (except !, ", #, \$, %, &, ', (, ), *, +, ,, /, :, ;, <, =, >, ?, [, ], ^, `, {,  , }, ~, \ and space)
<b>Default Value</b>	Not stored.



## 4.4.4 Time Adjust Settings

This screen allows you to enable automatic clock adjustment using an NTP server and configure the settings for DST (Daylight Saving Time), also known as Summer Time.

**Panasonic**  
KX-HDV230

Status | Network | **System** | VoIP | Telephone | Maintenance

Web Port Close

**Time Adjust Settings**

**System**

- Language Settings
- User Password Settings
- Admin Password Settings
- Time Adjust Settings**
- Advanced Settings

**Synchronization**

Server Address:

Synchronization Interval: 43200 seconds [10-86400]

**Time Zone**

Time Zone: GMT

**Daylight Saving Time**

Enable DST:  Yes  No

DST Offset: 60 minutes [0-720]

**Start Day and Time of DST**

### 4.4.4.1 Synchronization (Synchronisation)

#### Server Address

<b>Description</b>	Specifies the IP address or FQDN of NTP server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	NTP_ADDR (Page 231)

#### Synchronization Interval (Synchronisation Interval)

<b>Description</b>	Specifies the interval, in seconds, between synchronizations with the NTP server.
<b>Value Range</b>	10–86400
<b>Default Value</b>	43200
<b>Configuration File Reference</b>	TIME_QUERY_INTVL (Page 231)

### 4.4.4.2 Time Zone

#### Time Zone

<b>Description</b>	Selects your time zone.
<b>Value Range</b>	GMT -12:00–GMT +13:00

#### 4.4.4 Time Adjust Settings

---

<b>Default Value</b>	GMT
<b>Configuration File Reference</b>	TIME_ZONE (Page 232)

#### 4.4.4.3 Daylight Saving Time (Summer Time)

##### Enable DST (Enable Summer Time)

---

<b>Description</b>	Selects whether to enable Daylight Saving Time (Summer Time).
<b>Value Range</b>	<ul style="list-style-type: none"><li>• Yes</li><li>• No</li></ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	DST_ENABLE (Page 233)

##### DST Offset (Summer Time Offset)

---

<b>Description</b>	Specifies the amount of time, in minutes, to change the time when "DST_ENABLE" is set to "Y".
<b>Value Range</b>	0–720 (min)
<b>Default Value</b>	60
<b>Configuration File Reference</b>	DST_OFFSET (Page 233)

#### 4.4.4.4 Start Day and Time of DST (Start Day and Time of Summer Time)

##### Month

---

<b>Description</b>	Selects the month in which DST (Summer Time) starts.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• January</li><li>• February</li><li>• March</li><li>• April</li><li>• May</li><li>• June</li><li>• July</li><li>• August</li><li>• September</li><li>• October</li><li>• November</li><li>• December</li></ul>
<b>Default Value</b>	March
<b>Configuration File Reference</b>	DST_START_MONTH (Page 234)

## Day of Week

Using the 2 following settings, specify on which day of the selected month DST (Summer Time) starts. For example, to specify the second Sunday, select **[Second]** and **[Sunday]**.

<b>Description</b>	Selects the number of the week on which DST (Summer Time) starts.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• First</li> <li>• Second</li> <li>• Third</li> <li>• Fourth</li> <li>• Last</li> </ul>
<b>Default Value</b>	Second
<b>Configuration File Reference</b>	DST_START_ORDINAL_DAY (Page 234)

<b>Description</b>	Selects the day of the week on which DST (Summer Time) starts.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Sunday</li> <li>• Monday</li> <li>• Tuesday</li> <li>• Wednesday</li> <li>• Thursday</li> <li>• Friday</li> <li>• Saturday</li> </ul>
<b>Default Value</b>	Sunday
<b>Configuration File Reference</b>	DST_START_DAY_OF_WEEK (Page 234)

## Time

<b>Description</b>	Specifies the start time of DST (Summer Time) in minutes after 12:00 AM.
<b>Value Range</b>	0–1439 (min)
<b>Default Value</b>	120
<b>Configuration File Reference</b>	DST_START_TIME (Page 235)

### 4.4.4.5 End Day and Time of DST (End Day and Time of Summer Time)

#### Month

<b>Description</b>	Selects the month in which DST (Summer Time) ends.
--------------------	--

#### 4.4.4 Time Adjust Settings

---

<b>Value Range</b>	<ul style="list-style-type: none"><li>• January</li><li>• February</li><li>• March</li><li>• April</li><li>• May</li><li>• June</li><li>• July</li><li>• August</li><li>• September</li><li>• October</li><li>• November</li><li>• December</li></ul>
<b>Default Value</b>	October
<b>Configuration File Reference</b>	DST_STOP_MONTH (Page 235)

### Day of Week

---

Using the 2 following settings, specify on which day of the selected month DST (Summer Time) ends. For example, to specify the second Sunday, select **[Second]** and **[Sunday]**.

<b>Description</b>	Selects the number of the week on which DST (Summer Time) ends.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• First</li><li>• Second</li><li>• Third</li><li>• Fourth</li><li>• Last</li></ul>
<b>Default Value</b>	Second
<b>Configuration File Reference</b>	DST_STOP_ORDINAL_DAY (Page 236)

<b>Description</b>	Selects the day of the week on which DST (Summer Time) ends.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• Sunday</li><li>• Monday</li><li>• Tuesday</li><li>• Wednesday</li><li>• Thursday</li><li>• Friday</li><li>• Saturday</li></ul>
<b>Default Value</b>	Sunday
<b>Configuration File Reference</b>	DST_STOP_DAY_OF_WEEK (Page 236)

## Time

<b>Description</b>	Specifies the end time of DST (Summer Time) in minutes after 12:00 AM.
<b>Value Range</b>	0–1439 (min)
<b>Default Value</b>	120
<b>Configuration File Reference</b>	DST_STOP_TIME (Page 236)

## 4.4.5 Advanced Settings

This screen allows you to change the Soft Key function settings.

The screenshot shows the Panasonic KX-HDV230 web interface. The 'System' tab is active, and the 'Advanced Settings' option in the left sidebar is highlighted. The main content area is titled 'Advanced Settings' and contains two sections:

- Soft Key during IDLE Status:**
  - Soft Key A (Left): Phonebook
  - Soft Key B (Center): Menu
  - Soft Key C (Right): Outgoing Call Log
- IP Phone:**
  - Enable Admin Ability:  Yes  No
  - Enable IP Phone Lock:  Yes  No
  - Password for Unlocking: [0000-9999]

Buttons for 'Save' and 'Cancel' are located at the bottom of the settings area.

### 4.4.5.1 Soft Key during IDLE Status

#### Soft Key A (Left)

<b>Description</b>	Selects soft key (A) during IDLE state.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Phonebook</li> <li>• Menu</li> <li>• Outgoing Call Log</li> <li>• Incoming Call Log</li> <li>• Redial</li> <li>• Page (Used when performing Multicast Paging)</li> </ul>
<b>Default Value</b>	Phonebook
<b>Configuration File Reference</b>	IDLE_SOFT_KEY_A (Page 304)

## Soft Key B (Center)

<b>Description</b>	Selects soft key (B) during IDLE state.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Phonebook</li> <li>• Menu</li> <li>• Outgoing Call Log</li> <li>• Incoming Call Log</li> <li>• Redial</li> <li>• Page (Used when performing Multicast Paging)</li> </ul>
<b>Default Value</b>	Menu
<b>Configuration File Reference</b>	IDLE_SOFT_KEY_B (Page 305)

## Soft Key C (Right)

<b>Description</b>	Selects soft key (C) during IDLE state.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Phonebook</li> <li>• Menu</li> <li>• Outgoing Call Log</li> <li>• Incoming Call Log</li> <li>• Redial</li> <li>• Page (Used when performing Multicast Paging)</li> </ul>
<b>Default Value</b>	Outgoing Call Log
<b>Configuration File Reference</b>	IDLE_SOFT_KEY_C (Page 305)

### 4.4.5.2 IP Phone

#### Enable Admin Ability

<b>Description</b>	Selects whether to enable admin rights for the unit.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	Yes
<b>Configuration File Reference</b>	ADMIN_ABILITY_ENABLE (Page 305)

#### Enable IP Phone Lock

<b>Description</b>	Selects whether to enable locking the unit.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	SYS_LOCK_ENABLE (Page 284)

## Password for Unlocking

<b>Description</b>	Specifies the password for unlocking the unit.
<b>Value Range</b>	Null, 4 digits (0–9)
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	SYS_LOCK_PASSWORD (Page 285)

## 4.5 VoIP

This section provides detailed descriptions about all the settings classified under the **[VoIP]** tab.

### 4.5.1 SIP Settings

This screen allows you to change the SIP settings that are common to all lines.

The screenshot shows the Panasonic KX-HDV230 web interface. The 'VoIP' tab is selected, and the 'SIP Settings' option is highlighted in the left sidebar. The main content area shows the 'User Agent' field with the value 'Panasonic-{MODEL}/{fwver} ({mac})', and the 'NAT Identity' section with 'Enable Rport (RFC 3581)' set to 'No' and 'Enable Port Punching for SIP' and 'RTP' both set to '0 seconds [10-300, 0: Disable]'. 'Save' and 'Cancel' buttons are at the bottom.

#### 4.5.1.1 User Agent

### User Agent

<b>Description</b>	Specifies the text string to send as the user agent in the headers of SIP messages.
--------------------	---

## 4.5.1 SIP Settings

---

<b>Value Range</b>	Max. 64 characters  <b>Note</b> <ul style="list-style-type: none"><li>• If "{mac}" is included in this field, it will be replaced with the unit's MAC address in lower-case.</li><li>• If "{MAC}" is included in this field, it will be replaced with the unit's MAC address in upper-case.</li><li>• If "{MODEL}" is included in this field, it will be replaced with the unit's model name.</li><li>• If "{fwver}" is included in this field, it will be replaced with the firmware version of the unit.</li></ul>
<b>Default Value</b>	Panasonic-{MODEL}/{fwver} ({mac})
<b>Configuration File Reference</b>	SIP_USER_AGENT (Page 241)

### 4.5.1.2 NAT Identity

#### Enable Rport (RFC 3581)

---

<b>Description</b>	Selects whether to add the 'rport' parameter to the top Via header field value of requests generated.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• Yes</li><li>• No</li></ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	SIP_ADD_RPORT (Page 240)

#### Enable Port Punching for SIP

---

<b>Description</b>	Specifies the interval, in seconds, between transmissions of the Keep Alive packet in order to maintain the NAT binding information for SIP packet.
<b>Value Range</b>	0, 10–300 0: Disable
<b>Default Value</b>	0
<b>Configuration File Reference</b>	PORT_PUNCH_INTVL (Page 241)

#### Enable Port Punching for RTP

---

<b>Description</b>	Specifies the interval, in seconds, between transmissions of the Keep Alive packet in order to maintain the NAT binding information for RTP packet.
<b>Value Range</b>	0, 10–300 0: Disable
<b>Default Value</b>	0



## 4.5.2 SIP Settings [Line 1]–[Line 6]

This screen allows you to change the SIP settings that are specific to each line.

**Panasonic**  
KX-HDV230

Status | Network | System | **VoIP** | Telephone | Maintenance

Web Port Close

**SIP Settings [Line 1]**

**Basic**

Phone Number	<input type="text"/>
Registrar Server Address	<input type="text"/>
Registrar Server Port	5060 [1-65535]
Proxy Server Address	<input type="text"/>
Proxy Server Port	5060 [1-65535]
Presence Server Address	<input type="text"/>
Presence Server Port	5060 [1-65535]
Outbound Proxy Server Address	<input type="text"/>
Outbound Proxy Server Port	5060 [1-65535]
Service Domain	<input type="text"/>

### 4.5.2.1 Basic Phone Number

<b>Description</b>	Specifies the phone number to use as the user ID required for registration to the SIP registrar server. <b>Note</b> <ul style="list-style-type: none"><li>When registering using a user ID that is not a phone number, you should use the <b>[SIP URI]</b> setting.</li></ul>
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	PHONE_NUMBER_n (Page 242)

### Registrar Server Address

<b>Description</b>	Specifies the IP address or FQDN of the SIP registrar server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.

<b>Configuration File Reference</b>	SIP_RGSTR_ADDR_n (Page 242)
-------------------------------------	-----------------------------

## Registrar Server Port

<b>Description</b>	Specifies the port number to use for communication with the SIP registrar server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	5060
<b>Configuration File Reference</b>	SIP_RGSTR_PORT_n (Page 243)

## Proxy Server Address

<b>Description</b>	Specifies the IP address or FQDN of the SIP proxy server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	SIP_PRXY_ADDR_n (Page 243)

## Proxy Server Port

<b>Description</b>	Specifies the port number to use for communication with the SIP proxy server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	5060
<b>Configuration File Reference</b>	SIP_PRXY_PORT_n (Page 243)

## Presence Server Address

<b>Description</b>	Specifies the IP address or FQDN of the SIP presence server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	SIP_PRSNC_ADDR_n (Page 243)

## Presence Server Port

<b>Description</b>	Specifies the port number to use for communication with the SIP presence server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	5060

<b>Configuration File Reference</b>	SIP_PR SNC_PORT_n (Page 244)
-------------------------------------	------------------------------

## Outbound Proxy Server Address

<b>Description</b>	Specifies the IP address or FQDN of the SIP outbound proxy server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	SIP_OUTPROXY_ADDR_n (Page 244)

## Outbound Proxy Server Port

<b>Description</b>	Specifies the port number to use for communication with the SIP outbound proxy server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	5060
<b>Configuration File Reference</b>	SIP_OUTPROXY_PORT_n (Page 244)

## Service Domain

<b>Description</b>	Specifies the domain name provided by your phone system dealer/ service provider. The domain name is the part of the SIP URI that comes after the "@" symbol.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	SIP_SVCDOMAIN_n (Page 244)

## Authentication ID

<b>Description</b>	Specifies the authentication ID required to access the SIP server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	SIP_AUTHID_n (Page 245)

## Authentication Password

<b>Description</b>	Specifies the authentication password used to access the SIP server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Not stored.

Configuration File Reference	SIP_PASS_n (Page 245)
------------------------------	-----------------------

## 4.5.2.2 Advanced

### SIP Packet QoS (DSCP)

Description	Specifies the DSCP (Differentiated Services Code Point) level of DiffServ applied to SIP packets.
Value Range	0–63
Default Value	0
Configuration File Reference	DSCP_SIP_n (Page 246)

### Enable DNS SRV lookup

Description	Selects whether to request the DNS server to translate domain names into IP addresses using the SRV record.
Value Range	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• If you select <b>[Yes]</b>, the unit will perform a DNS SRV lookup for a SIP registrar server, SIP proxy server, SIP outbound proxy server, or SIP presence server. If you select <b>[No]</b>, the unit will not perform a DNS SRV lookup for a SIP registrar server, SIP proxy server, SIP outbound proxy server, or SIP presence server.</li> </ul>
Default Value	Yes
Configuration File Reference	SIP_DNSSRV_ENA_n (Page 246)

### SRV lookup Prefix for UDP

Description	Specifies a prefix to add to the domain name when performing a DNS SRV lookup using UDP. <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• This setting is available only when <b>[Enable DNS SRV lookup]</b> is set to <b>[Yes]</b>.</li> </ul>
Value Range	Max. 32 characters
Default Value	_sip_udp.
Configuration File Reference	SIP_UDP_SRV_PREFIX_n (Page 246)

## SRV lookup Prefix for TCP

<b>Description</b>	Specifies a prefix to add to the domain name when performing a DNS SRV lookup using TCP.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when <b>[Enable DNS SRV lookup]</b> is set to <b>[Yes]</b>.</li> </ul>
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	_sip._tcp.
<b>Configuration File Reference</b>	SIP_TCP_SRV_PREFIX_n (Page 247)

## SRV lookup Prefix for TLS

<b>Description</b>	Specifies a prefix to add to the domain name when performing a DNS SRV lookup using TLS.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when <b>[Enable DNS SRV lookup]</b> is set to <b>[Yes]</b>.</li> </ul>
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	_sips._tls.
<b>Configuration File Reference</b>	SIP_TLS_SRV_PREFIX_n (Page 266)

## Local SIP Port

<b>Description</b>	Specifies the source port number used by the unit for SIP communication.
<b>Value Range</b>	1024–49151
<b>Default Value</b>	5060 (for Line 1) 5070 (for Line 2) 5080 (for Line 3) 5090 (for Line 4) 5100 (for Line 5) 5110 (for Line 6)
<b>Configuration File Reference</b>	SIP_SRC_PORT_n (Page 245)

## SIP URI

<b>Description</b>	Specifies the unique ID used by the SIP registrar server, which consists of "sip:", a user part, the "@" symbol, and a host part, for example, "sip:user@example.com", "2405551111_1".  <b>Note</b> <ul style="list-style-type: none"> <li>When registering using a user ID that is not a phone number, you should use this setting.</li> <li>In a SIP URI, the user part ("user" in the example above) can contain up to 63 characters, and the host part ("example.com" in the example above) can contain up to 316 characters.</li> </ul>
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	SIP_URI_n (Page 242)

## T1 Timer

<b>Description</b>	Specifies the default interval, in milliseconds, between transmissions of SIP messages.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>250</li> <li>500</li> <li>1000</li> <li>2000</li> <li>4000</li> </ul>
<b>Default Value</b>	500
<b>Configuration File Reference</b>	SIP_TIMER_T1_n (Page 249)

## T2 Timer

<b>Description</b>	Specifies the maximum interval, in seconds, between transmissions of SIP messages.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>2</li> <li>4</li> <li>8</li> <li>16</li> <li>32</li> </ul>
<b>Default Value</b>	4
<b>Configuration File Reference</b>	SIP_TIMER_T2_n (Page 250)

## REGISTER Expires Timer

<b>Description</b>	Specifies the length of time, in seconds, that the registration remains valid. This value is set in the "Expires" header of the REGISTER request.
<b>Value Range</b>	1–4294967295
<b>Default Value</b>	3600
<b>Configuration File Reference</b>	REG_EXPIRE_TIME_n (Page 247)

## Enable Session Timer (RFC 4028)

<b>Description</b>	Specifies the length of time, in seconds, that the unit waits before terminating SIP sessions when no reply to repeated requests is received.
<b>Value Range</b>	0, 60–65535
<b>Default Value</b>	0
<b>Configuration File Reference</b>	SIP_SESSION_TIME_n (Page 249)

## Session Timer Method

<b>Description</b>	Selects the refreshing method of SIP sessions.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• INVITE</li> <li>• UPDATE</li> <li>• INVITE/UPDATE</li> </ul>
<b>Default Value</b>	INVITE
<b>Configuration File Reference</b>	SIP_SESSION_METHOD_n (Page 249)

## Enable 100rel (RFC 3262)

<b>Description</b>	Specifies whether to add the option tag 100rel to the "Supported" header of the INVITE message.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• If you select <b>[Yes]</b>, the Reliability of Provisional Responses function will be enabled. The option tag 100rel will be added to the "Supported" header of the INVITE message and to the "Require" header of the "1xx" provisional message. If you select <b>[No]</b>, the option tag 100rel will not be used.</li> </ul>
<b>Default Value</b>	Yes
<b>Configuration File Reference</b>	SIP_100REL_ENABLE_n (Page 252)

## Enable SSAF (SIP Source Address Filter)

<b>Description</b>	Selects whether to enable SSAF for the SIP servers (registrar server, proxy server, and presence server).
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	SIP_DETECT_SSAF_n (Page 255)

## Enable c=0.0.0.0 Hold (RFC 2543)

<b>Description</b>	Selects whether to enable the RFC 2543 Call Hold feature on this line.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• If you select <b>[Yes]</b>, the "c=0.0.0.0" syntax will be set in SDP when sending a re-INVITE message to hold the call. If you select <b>[No]</b>, the "c=x.x.x.x" syntax will be set in SDP.</li> </ul>
<b>Default Value</b>	Yes
<b>Configuration File Reference</b>	RFC2543_HOLD_ENABLE_n (Page 262)

## Transport Protocol

<b>Description</b>	Selects which transport layer protocol to use for sending SIP packets.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• UDP</li> <li>• TCP</li> <li>• TLS</li> </ul>
<b>Default Value</b>	UDP
<b>Configuration File Reference</b>	SIP_TRANSPORT_n (Page 265)

## TLS Mode

<b>Description</b>	Select the secure SIP protocol.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• SIPS</li> <li>• SIP-TLS</li> </ul>
<b>Default Value</b>	SIPS
<b>Configuration File Reference</b>	SIP_TLS_MODE_n (Page 266)



## 4.5.3 VoIP Settings

This screen allows you to change the VoIP settings that are common to all lines.

**Panasonic**  
KX-HDV230

Status | Network | System | **VoIP** | Telephone | Maintenance

Web Port Close

**VoIP Settings**

**VoIP**

SIP Settings

- Line 1
- Line 2
- Line 3
- Line 4
- Line 5
- Line 6
- VoIP Settings**
- Line 1
- Line 2
- Line 3
- Line 4
- Line 5
- Line 6

**RTP**

RTP Packet Time: 20 milliseconds

Minimum RTP Port Number: 16000 [1024-59598: Even Number Only]

Maximum RTP Port Number: 20000 [1424-59998: Even Number Only]

Telephone-event Payload Type: 101 [96-127]

**Voice Quality Report**

Server Address: [ ]

Port: 5060 [1-65535]

Enable PUBLISH: Disable

Alert Report Trigger:  Warning  Critical

Threshold MOS-LQ (Critical): 20 [0-40]

### 4.5.3.1 RTP

#### RTP Packet Time

<b>Description</b>	Selects the interval, in milliseconds, between transmissions of RTP packets.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 20</li> <li>• 30</li> <li>• 40</li> </ul>
<b>Default Value</b>	20
<b>Configuration File Reference</b>	RTP_PTIME (Page 272)

#### Minimum RTP Port Number

<b>Description</b>	Specifies the lowest port number that the unit will use for RTP packets.
<b>Value Range</b>	1024–59598 (even number only)
<b>Default Value</b>	16000
<b>Configuration File Reference</b>	RTP_PORT_MIN (Page 272)

## Maximum RTP Port Number

<b>Description</b>	Specifies the highest port number that the unit will use for RTP packets.
<b>Value Range</b>	1424–59998 (even number only)
<b>Default Value</b>	20000
<b>Configuration File Reference</b>	RTP_PORT_MAX (Page 272)

## Telephone-event Payload Type

<b>Description</b>	Specifies the RFC 2833 payload type for DTMF tones.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when <b>[DTMF Type]</b> is set to <b>[Outband]</b>.</li> </ul>
<b>Value Range</b>	96–127
<b>Default Value</b>	101
<b>Configuration File Reference</b>	TELEVENT_PAYLOAD (Page 263)

### 4.5.3.2 Voice Quality Report

#### Server Address

<b>Description</b>	Specifies the IP address or FQDN of the collector server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	VQREPORT_COLLECTOR_ADDRESS (Page 275)

#### Port

<b>Description</b>	Specifies the port of the collector server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	5060
<b>Configuration File Reference</b>	VQREPORT_COLLECTOR_PORT (Page 276)

#### Enable PUBLISH

<b>Description</b>	Selects the sending type of the VQ report using PUBLISH.
--------------------	--

<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Disable</li> <li>• End of Session Report Using PUBLISH</li> <li>• Interval report Using PUBLISH</li> <li>• Alert Report Using PUBLISH</li> </ul>
<b>Default Value</b>	Disable
<b>Configuration File Reference</b>	VQREPORT_SEND (Page 276)

## Alert Report Trigger

<b>Description</b>	Selects the trigger to notify the VQ report.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Warning</li> <li>• Critical</li> </ul>
<b>Default Value</b>	Warning
<b>Configuration File Reference</b>	ALERT_REPORT_TRIGGER (Page 276)

## Threshold MOS-LQ (Critical)

<b>Description</b>	Specifies the criteria (critical) to send the VQ report when the MOSQ occurs.
<b>Value Range</b>	0–40
<b>Default Value</b>	0
<b>Configuration File Reference</b>	ALERT_REPORT_MOSQ_CRITICAL (Page 276)

## Threshold MOS-LQ (Warning)

<b>Description</b>	Specifies the criteria (warning) to send the VQ report when the MOSQ occurs.
<b>Value Range</b>	0–40
<b>Default Value</b>	0
<b>Configuration File Reference</b>	ALERT_REPORT_MOSQ_WARNING (Page 277)

## Threshold Delay (Critical)

<b>Description</b>	Specifies the criteria (critical) to send the VQ report when a delay occurs.
<b>Value Range</b>	0–2000
<b>Default Value</b>	0
<b>Configuration File Reference</b>	ALERT_REPORT_DELAY_CRITICAL (Page 277)

## Threshold Delay (Warning)

<b>Description</b>	Specifies the criteria (warning) to send the VQ report when a delay occurs.
<b>Value Range</b>	0–2000
<b>Default Value</b>	0
<b>Configuration File Reference</b>	ALERT_REPORT_DELAY_WARNING (Page 277)

## 4.5.4 VoIP Settings [Line 1]–[Line 6]

This screen allows you to change the VoIP settings that are specific to each line.

The screenshot displays the Panasonic KX-HDV230 VoIP Settings [Line 1] interface. The 'VoIP' tab is active, and the 'Line 1' option is selected in the left-hand menu. The 'Basic' configuration section is visible, showing settings for G.722, PCMA, G.729A, and PCMU. Each codec has an 'Enable' option set to 'Yes' and a 'Priority' dropdown set to '1'. The 'Advanced' section shows 'RTP Packet QoS (DSCP)' set to '0'.

### 4.5.4.1 Basic

#### G.722 (Enable)

<b>Description</b>	Selects whether to enable the G.722 codec for voice data transmission.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	Yes
<b>Configuration File Reference</b>	CODEC_ENABLEx_n (Page 268)

#### G.722 (Priority)

<b>Description</b>	Specifies the numerical order usage priority for the G.722 codec.
--------------------	---

<b>Value Range</b>	1–255
<b>Default Value</b>	1
<b>Configuration File Reference</b>	CODEC_PRIORITYx_n (Page 268)

### PCMA (Enable)

<b>Description</b>	Selects whether to enable the PCMA codec for voice data transmission.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	Yes
<b>Configuration File Reference</b>	CODEC_ENABLEx_n (Page 268)

### PCMA (Priority)

<b>Description</b>	Specifies the numerical order usage priority for the PCMA codec.
<b>Value Range</b>	1–255
<b>Default Value</b>	1
<b>Configuration File Reference</b>	CODEC_PRIORITYx_n (Page 268)

### G.729A (Enable)

<b>Description</b>	Selects whether to enable the G.729A codec for voice data transmission.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	Yes
<b>Configuration File Reference</b>	CODEC_ENABLEx_n (Page 268)

### G.729A (Priority)

<b>Description</b>	Specifies the numerical order usage priority for the G.729A codec.
<b>Value Range</b>	1–255
<b>Default Value</b>	1
<b>Configuration File Reference</b>	CODEC_PRIORITYx_n (Page 268)

### PCMU (Enable)

<b>Description</b>	Selects whether to enable the PCMU codec for voice data transmission.
--------------------	---

#### 4.5.4 VoIP Settings [Line 1]–[Line 6]

---

<b>Value Range</b>	<ul style="list-style-type: none"><li>• Yes</li><li>• No</li></ul>
<b>Default Value</b>	Yes
<b>Configuration File Reference</b>	CODEC_ENABLEx_n (Page 268)

#### PCMU (Priority)

---

<b>Description</b>	Specifies the numerical order usage priority for the PCMU codec.
<b>Value Range</b>	1–255
<b>Default Value</b>	1
<b>Configuration File Reference</b>	CODEC_PRIORITYx_n (Page 268)

#### DTMF Type

---

<b>Description</b>	Selects the method for transmitting DTMF (Dual Tone Multi-Frequency) tones.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• RFC2833</li><li>• Inband</li><li>• SIP INFO</li></ul> <p><b>Note</b></p> <ul style="list-style-type: none"><li>• RFC2833 refers to Outband DTMF.</li><li>• Inband refers to Inband DTMF.</li></ul>
<b>Default Value</b>	RFC2833
<b>Configuration File Reference</b>	DTMF_METHOD_n (Page 269)

#### 4.5.4.2 Advanced

##### RTP Packet QoS (DSCP)

---

<b>Description</b>	Specifies the DSCP level of DiffServ applied to RTP packets.
<b>Value Range</b>	0–63
<b>Default Value</b>	0
<b>Configuration File Reference</b>	DSCP_RTP_n (Page 270)

##### RTCP Packet QoS (DSCP)

---

<b>Description</b>	Specifies the DSCP level of DiffServ applied to RTCP/RTCP-XR packets.
<b>Value Range</b>	0–63

<b>Default Value</b>	0
<b>Configuration File Reference</b>	DSCP_RTCP_n (Page 270)

## Enable RTCP

<b>Description</b>	Selects whether to enable or disable RTCP.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	RTCP_ENABLE_n (Page 273)

## Enable RTCP-XR

<b>Description</b>	Selects whether to enable or disable RTCP-XR.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	RTCPXR_ENABLE_n (Page 274)

## RTCP&RTCP-XR Interval

<b>Description</b>	Specifies the interval, in seconds, between RTCP/RTCP-XR packets.
<b>Value Range</b>	5–65535
<b>Default Value</b>	5
<b>Configuration File Reference</b>	RTCP_INTVL_n (Page 273)

## SRTP Mode

<b>Description</b>	Selects the mode of SRTP feature.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• SRTP</li> <li>• RTP/SRTP</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• When RTP/SRTP is selected, operation is in RTP mode.</li> </ul>
<b>Default Value</b>	RTP/SRTP
<b>Configuration File Reference</b>	SRTP_CONNECT_MODE_n (Page 274)

### Enable Mixed SRTP & RTP by Conference

---

<b>Description</b>	Selects whether to allow conferences where each participant can use either SRTP or RTP.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• Yes</li><li>• No</li></ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	SRTP_MIX_CONFERENCE_ENABLE_n (Page 275)

### Enable Mixed SRTP & RTP by Transfer

---

<b>Description</b>	Selects whether to allow call transfers between a user who is using SRTP and a user who is using RTP.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• Yes</li><li>• No</li></ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	SRTP_MIX_TRANSFER_ENABLE_n (Page 275)

## 4.6 Telephone

---

This section provides detailed descriptions about all the settings classified under the **[Telephone]** tab.



## 4.6.1 Call Control

This screen allows you to configure various call features that are common to all lines.

**Panasonic**  
KX-HDV230

Status | Network | System | VoIP | **Telephone** | Maintenance

**Call Control**

Web Port Close

**Telephone**

- Call Control**
- Line 1
- Line 2
- Line 3
- Line 4
- Line 5
- Line 6
- Hotline Settings
- Flexible Key Settings
- Tone Settings
- Import Phonebook
- Export Phonebook

**DSS Console**

- DSS Console
- DSS 1 Key (001-020)

Call Control	
Send SUBSCRIBE to Voice Mail Server	<input type="radio"/> Yes <input checked="" type="radio"/> No
Conference Server URI	<input type="text"/>
First-digit Timeout	30 seconds [1-600]
Inter-digit Timeout	5 seconds [1-15]
Timer for Dial Plan	5 seconds [1-15]
Enable # Key as delimiter	<input checked="" type="radio"/> Yes <input type="radio"/> No
International Call Prefix	<input type="text"/>
Country Calling Code	<input type="text"/>
National Access Code	<input type="text"/>
Default Line for Outgoing	Line 1 ▼
Call Park Number	<input type="text"/>
Enable Call Park Key	<input type="radio"/> Yes <input checked="" type="radio"/> No
Park Retrieve Number	<input type="text"/>

### 4.6.1.1 Call Control

#### Send SUBSCRIBE to Voice Mail Server

<b>Description</b>	Selects whether to send the SUBSCRIBE request to a voice mail server. <b>Note</b> <ul style="list-style-type: none"><li>Your phone system must support voice mail.</li></ul>
<b>Value Range</b>	<ul style="list-style-type: none"><li>Yes</li><li>No</li></ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	VM_SUBSCRIBE_ENABLE (Page 302)

## Conference Server URI

<b>Description</b>	Specifies the URI for a conference server, which consists of "sip:", a user part, the "@" symbol, and a host part, for example, "sip:conference@example.com".  <b>Note</b> <ul style="list-style-type: none"> <li>Availability depends on your phone system.</li> </ul>
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	CONFERENCE_SERVER_URI (Page 310)

## First-digit Timeout

<b>Description</b>	Specifies the length of time, in seconds, within which the first digits of a dial number must be dialed.
<b>Value Range</b>	1–600 (s)
<b>Default Value</b>	30
<b>Configuration File Reference</b>	FIRSTDIGIT_TIM (Page 280)

## Inter-digit Timeout

<b>Description</b>	Specifies the length of time, in seconds, within which subsequent digits of a dial number must be dialed.
<b>Value Range</b>	1–15 (s)
<b>Default Value</b>	5
<b>Configuration File Reference</b>	INTDIGIT_TIM (Page 280)

## Timer for Dial Plan

<b>Description</b>	Specifies the length of time, in seconds, that the unit waits when a "T" or "t" has been entered in the dial plan.
<b>Value Range</b>	1–15 (s)
<b>Default Value</b>	5
<b>Configuration File Reference</b>	MACRODIGIT_TIM (Page 303)

## Enable # Key as delimiter

<b>Description</b>	Selects whether the # key is treated as a regular dialed digit or a delimiter, when dialed as or after the second digit.
--------------------	--

<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes: # is treated as the end of dialing delimiter.</li> <li>• No: # is treated as a regular dialed digit.</li> </ul>
<b>Default Value</b>	Yes
<b>Configuration File Reference</b>	POUND_KEY_DELIMITER_ENABLE (Page 281)

## International Call Prefix

<b>Description</b>	Specifies the number to be shown in the place of the first "+" symbol when the phone number for incoming international calls contains "+".
<b>Value Range</b>	Max. 8 characters (consisting of 0–9, *, and #)
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	INTERNATIONAL_ACCESS_CODE (Page 303)

## Country Calling Code

<b>Description</b>	Specifies the country/area calling code to be used for comparative purposes when dialing a number from the incoming call log that contains a "+" symbol.
<b>Value Range</b>	Max. 8 characters (consisting of 0–9, *, and #)
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	COUNTRY_CALLING_CODE (Page 304)

## National Access Code

<b>Description</b>	When dialing a number from the incoming call log that contains a "+" symbol and the country calling code matches, the country calling code is removed and the national access code is added.
<b>Value Range</b>	Max. 8 characters (consisting of 0–9, *, and #)
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	NATIONAL_ACCESS_CODE (Page 304)

## Default Line for Outgoing

<b>Description</b>	Selects the line used to make an outgoing call when no line is specified in the dialing operation.
--------------------	--

#### 4.6.1 Call Control

---

<b>Value Range</b>	<ul style="list-style-type: none"><li>• Line 1</li><li>• Line 2</li><li>• Line 3</li><li>• Line 4</li><li>• Line 5</li><li>• Line 6</li></ul>
<b>Default Value</b>	Line 1
<b>Configuration File Reference</b>	DEFAULT_LINE_SELECT (Page 300)

### Call Park Number

---

<b>Description</b>	Specifies the call parking number.
<b>Value Range</b>	0–4 digits (0–9, *, #)
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	NUM_PLAN_PARKING (Page 282)

### Enable Call Park Key

---

<b>Description</b>	Selects whether to display "Call Park" in the Call Parking Func menu.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• Yes</li><li>• No</li></ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	CALLPARK_KEY_ENABLE (Page 282)

### Park Retrieve Number

---

<b>Description</b>	Specifies the call park retrieve number.
<b>Value Range</b>	0–4 digits (0–9, *, #)
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	NUM_PLAN_PARK_RETRIEVING (Page 283)

### Park Retrieve Soft Key

---

<b>Description</b>	Selects whether to have soft key for the call park retrieving. <b>Note</b> <ul style="list-style-type: none"><li>• This feature is available only when <b>[Enable Call Park Notification]</b> is set to <b>[Yes]</b>, and <b>[Park Retrieve Number]</b> is set (→see <b>Enable Call Park Notification, Park Retrieve Number</b>).</li></ul>
--------------------	--

<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Not Use</li> <li>• Soft Key A (Left)</li> <li>• Soft Key B (Center)</li> <li>• Soft Key C (Right)</li> </ul>
<b>Default Value</b>	Not Use
<b>Configuration File Reference</b>	IDLE_SOFT_KEY_PARK_RETRIEVING (Page 283)

## Directed Call Pickup

<b>Description</b>	Specifies the feature number assigned to a BLF for performing call pickup.
<b>Value Range</b>	0–4 digits (0–9, *, #)
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	NUM_PLAN_PICKUP_DIRECT (Page 285)

### 4.6.1.2 Emergency Call Phone Numbers

#### 1–5

<b>Description</b>	Specifies the phone numbers used for making emergency calls. A user can dial any of the specified phone numbers at any time regardless of any restrictions imposed on the unit. A maximum of 5 phone numbers can be specified.
<b>Value Range</b>	Max. 32 characters (except &, ", ' ; , ; , <, >)
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	EMERGENCY_CALLx (Page 306)

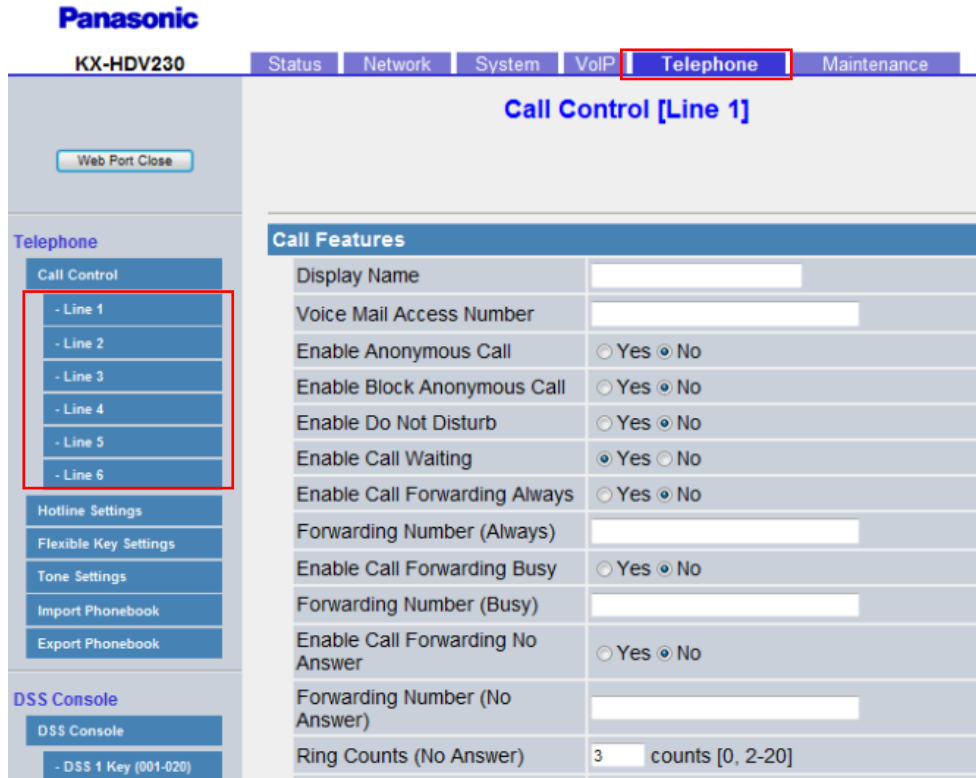
### 4.6.1.3 Call Rejection Phone Numbers

#### 1–30

<b>Description</b>	Specifies the phone numbers to reject incoming calls from. A maximum of 30 phone numbers can be specified.
<b>Value Range</b>	Max. 32 characters (except &, ", ' ; , ; , <, >)
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	CALL_REJECTIONx (Page 306)

## 4.6.2 Call Control [Line 1]–[Line 6]

This screen allows you to configure various call features that are specific to each line.



### 4.6.2.1 Call Features

#### Display Name

<b>Description</b>	Specifies the name to display as the caller on the other party's phone when you make a call.
<b>Value Range</b>	Max. 24 characters <b>Note</b> <ul style="list-style-type: none"><li>You can use Unicode characters for this setting.</li></ul>
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	DISPLAY_NAME_n (Page 301)

#### Voice Mail Access Number

<b>Description</b>	Specifies the phone number used to access the voice mail server. <b>Note</b> <ul style="list-style-type: none"><li>Your phone system must support voice mail.</li></ul>
--------------------	--

<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	VM_NUMBER_n (Page 302)

## Enable Anonymous Call

<b>Description</b>	Selects whether to make calls without transmitting the phone number to the called party.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	ANONYMOUS_CALL_ENABLE_n (Page 300)

## Enable Block Anonymous Call

<b>Description</b>	Selects whether to accept or reject the incoming call without the called party's phone number.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	BLOCK_ANONYMOUS_CALL_ENABLE_n (Page 300)

## Enable Do Not Disturb

<b>Description</b>	Selects whether to reject the all incoming calls.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No

## Enable Call Waiting

<b>Description</b>	Selects whether to enable Call Waiting.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	Yes
<b>Configuration File Reference</b>	CW_ENABLE_n (Page 309)

### Enable Call Forwarding Always

<b>Description</b>	Selects whether to forward all incoming calls to a specified destination.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No

### Forwarding Number (Always)

<b>Description</b>	Specifies the phone number of the destination to forward all incoming calls to.
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	Not stored.

### Enable Call Forwarding Busy

<b>Description</b>	Selects whether to forward incoming calls to a specified destination when the line is in use.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No

### Forwarding Number (Busy)

<b>Description</b>	Specifies the phone number of the destination to forward calls to when the line is in use.
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	Not stored.

### Enable Call Forwarding No Answer

<b>Description</b>	Selects whether to forward incoming calls to a specified destination when a call is not answered after it has rung a specified number of times.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No



## Forwarding Number (No Answer)

<b>Description</b>	Specifies the phone number of the destination to forward calls to when a call is not answered after it has rung a specified number of times.
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	Not stored.

## Ring Counts (No Answer)

<b>Description</b>	Specifies the number of times that an incoming call rings until the call is forwarded.
<b>Value Range</b>	0, 2–20
<b>Default Value</b>	3

## Enable Shared Call

<b>Description</b>	Selects whether to enable the Shared Call feature of the SIP server, which is used to share one line among the units.  <b>Note</b> <ul style="list-style-type: none"> <li>Availability depends on your phone system.</li> </ul>
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul> <b>Note</b> <ul style="list-style-type: none"> <li>If you select <b>[Yes]</b>, the SIP server will control the line by using a shared-call signaling method. If you select <b>[No]</b>, the SIP server will control the line by using a standard signaling method.</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	SHARED_CALL_ENABLE_n (Page 307)

## Enable Key Synchronization (Enable Key Synchronisation)

<b>Description</b>	Selects whether to synchronize the Do Not Disturb and Call Forward settings.  <b>Note</b> <ul style="list-style-type: none"> <li>Even if you select <b>[Yes]</b>, this feature may not function properly if your phone system does not support it. Before you configure this setting, consult your phone system dealer/service provider.</li> </ul>
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>
<b>Default Value</b>	No

<b>Configuration File Reference</b>	FWD_DND_SYNCHRO_ENABLE_n (Page 307)
-------------------------------------	-------------------------------------

## Enable Call Park Notification

<b>Description</b>	Selects whether to respond to call park notifications from the server.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	CALLPARK_NOTIFICATION_ENABLE_n (Page 306)

## Enable Click to Call

<b>Description</b>	Selects whether to enable Click to Dial/Answer/Hold functions.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	CLICKTO_ENABLE_n (Page 306)

## MoH Server URI

<b>Description</b>	Specifies MoH server URI for each line.
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	MOH_SERVER_URI_n (Page 308)

## Resource List URI

<b>Description</b>	Specifies the URI for the resource list, which consists of "sip:", a user part, the "@" symbol, and a host part.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	RESOURCELIST_URI_n (Page 310)

## 4.6.2.2 Dial Plan

### Dial Plan (max 1000 columns)

<b>Description</b>	Specifies a dial format, such as specific phone numbers, that control which numbers can be dialed or how to handle the call when making a call. For details, see <b>6.2 Dial Plan</b> .
<b>Value Range</b>	Max. 1000 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	DIAL_PLAN_n (Page 302)

### Call Even If Dial Plan Does Not Match

<b>Description</b>	Selects whether to make a call even if the dialed number does not match any of the dial formats specified in <b>[Dial Plan]</b> .
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• If you select <b>[Yes]</b>, calls will be made even if the dialed number does not match the dial formats specified in <b>[Dial Plan]</b> (i.e., dial plan filtering is disabled). If you select <b>[No]</b>, calls will not be made if the dialed number does not match one of the dial formats specified in <b>[Dial Plan]</b> (i.e., dial plan filtering is enabled).</li> </ul>
<b>Default Value</b>	Yes
<b>Configuration File Reference</b>	DIAL_PLAN_NOT_MATCH_ENABLE_n (Page 303)

## 4.6.3 Hotline Settings

**Panasonic**  
KX-HDV230

Status | Network | System | VoIP | **Telephone** | Maintenance

Web Port Close

**Telephone**

- Call Control
- Line 1
- Line 2
- Line 3
- Line 4
- Line 5
- Line 6
- Hotline Settings**
- Flexible Key Settings

**Hotline Settings**

**Hotline**

Enable  Yes  No

Hotline Number

Hotline Delay  seconds [0-10]

### 4.6.3.1 Hotline

#### Enable

<b>Description</b>	Selects whether to enable or disable the Hot line feature.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	HOTLINE_ENABLE (Page 301)

#### Hotline Number

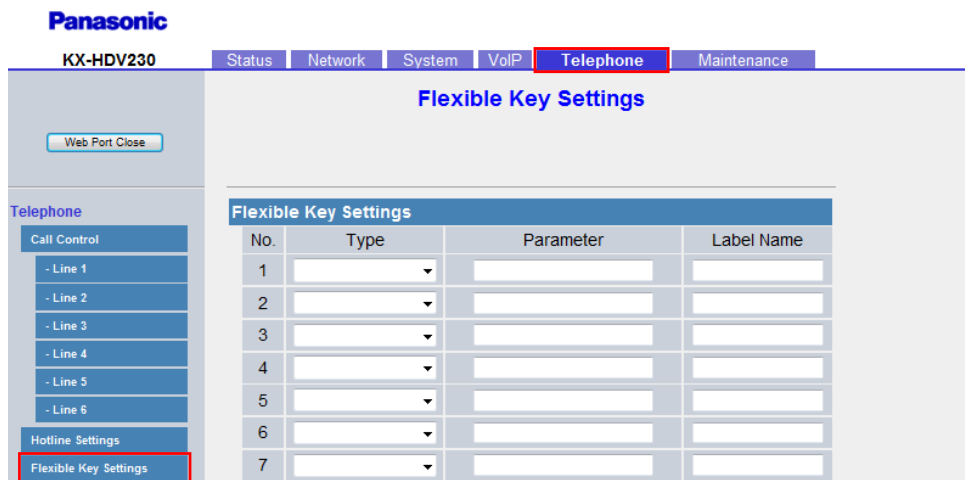
<b>Description</b>	Specifies the Hot line number.
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	HOTLINE_NUMBER (Page 301)

#### Hotline Delay

<b>Description</b>	Specifies a time after off hook for Hot line.
<b>Value Range</b>	0–10 (s)
<b>Default Value</b>	2
<b>Configuration File Reference</b>	HOTLINE_TIM (Page 301)

## 4.6.4 Flexible Key Settings (No. 1–24)

This screen allows you to configure various features for each flexible key.



## 4.6.4.1 Flexible Key Settings

### Type

<b>Description</b>	Selects the feature to be assigned to each flexible key.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• One Touch Dial</li> <li>• BLF</li> <li>• Line</li> <li>• ACD</li> <li>• Wrap Up</li> <li>• Line Status</li> <li>• Call Forward</li> <li>• Phonebook</li> <li>• Call History</li> <li>• Simultaneous Ring</li> <li>• Hoteling (Hospitality)</li> <li>• Transfer</li> <li>• Blind Transfer</li> <li>• Conference</li> <li>• Directed Call Pickup</li> <li>• Call Park</li> <li>• Call Park Retrieve</li> </ul>
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	FLEX_BUTTON_FACILITY_ACTx (Page 285)

### Parameter

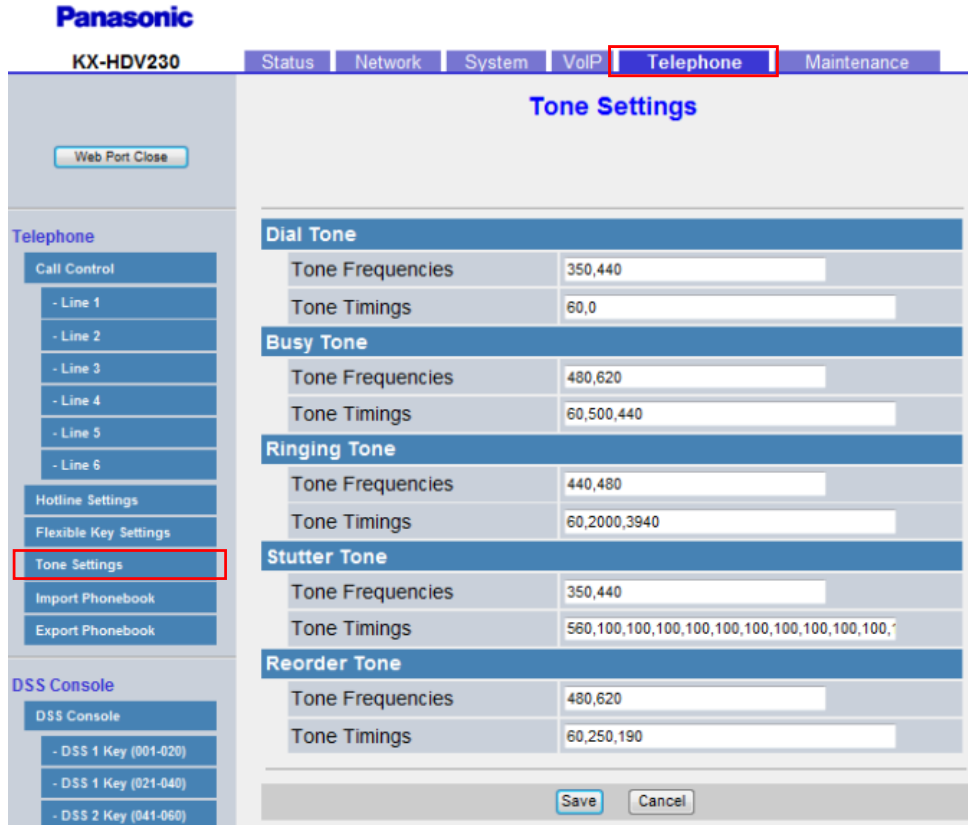
<b>Description</b>	Specifies the necessary values for the features assigned to flexible keys.
<b>Value Range</b>	Max. 34 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	FLEX_BUTTON_FACILITY_ARGx (Page 286)

### Label Name

<b>Description</b>	Specifies the message to be displayed on the screen when the flexible key is pressed.
<b>Value Range</b>	Max. 20 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	FLEX_BUTTON_LABELx (Page 286)

## 4.6.5 Tone Settings

This screen allows you to configure the dual-tone frequencies and ringtone patterns of each tone.



### 4.6.5.1 Dial Tone Tone Frequencies

<b>Description</b>	Specifies the dual-tone frequencies, in hertz, of dial tones using 2 whole numbers separated by a comma.
<b>Value Range</b>	0, 200–2000 (0: No tone)  <b>Note</b> <ul style="list-style-type: none"> <li>If the value for this setting is "350,440", the unit will use a mixed signal of a 350 Hz tone and a 440 Hz tone.</li> </ul>
<b>Default Value</b>	350,440
<b>Configuration File Reference</b>	DIAL_TONE1_FRQ (Page 291)

## Tone Timings

<b>Description</b>	Specifies the pattern, in milliseconds, of dial tones using up to 10 whole numbers (off 1, on 1, off 2, on 2...) separated by commas.  <b>Note</b> <ul style="list-style-type: none"> <li>The unit will not play the tone for the duration of the first value, play it for the duration of the second value, stop it for the duration of the third value, play it again for the duration of the fourth value, and so on. The whole sequence will then repeat. For example, if the value for this setting is "100,100,100,0", the unit will not play the tone for 100 ms, play it for 100 ms, stop it for 100 ms, and then play it continuously.</li> <li>It is recommended that you set a value of 60 milliseconds or more for the first value (off 1).</li> </ul>
<b>Value Range</b>	0–16000 (0: Infinite time)  <b>Note</b> <ul style="list-style-type: none"> <li>Avoid setting 1–50 for any of the values.</li> </ul>
<b>Default Value</b>	60,0
<b>Configuration File Reference</b>	DIAL_TONE1_TIMING (Page 291)

### 4.6.5.2 Busy Tone

#### Tone Frequencies

<b>Description</b>	Specifies the dual-tone frequencies, in hertz, of busy tones using 2 whole numbers separated by a comma.
<b>Value Range</b>	0, 200–2000 (0: No tone)  <b>Note</b> <ul style="list-style-type: none"> <li>If the value for this setting is "480,620", the unit will use a mixed signal of a 480 Hz tone and a 620 Hz tone.</li> </ul>
<b>Default Value</b>	480,620
<b>Configuration File Reference</b>	BUSY_TONE_FRQ (Page 294)

#### Tone Timings

<b>Description</b>	Specifies the pattern, in milliseconds, of busy tones using up to 10 whole numbers (off 1, on 1, off 2, on 2...) separated by commas.
<b>Value Range</b>	0–16000 (0: Infinite time)  <b>Note</b> <ul style="list-style-type: none"> <li>Avoid setting 1–50 for any of the values.</li> </ul>
<b>Default Value</b>	60,500,440

<b>Configuration File Reference</b>	BUSY_TONE_TIMING (Page 295)
-------------------------------------	-----------------------------

### 4.6.5.3 Ringing Tone Tone Frequencies

<b>Description</b>	Specifies the dual-tone frequencies, in hertz, of ringback tones using 2 whole numbers separated by a comma.
<b>Value Range</b>	0, 200–2000 (0: No tone)  <b>Note</b> <ul style="list-style-type: none"> <li>If the value for this setting is "440,480", the unit will use a mixed signal of a 440 Hz tone and a 480 Hz tone.</li> </ul>
<b>Default Value</b>	440,480
<b>Configuration File Reference</b>	RINGBACK_TONE_FRQ (Page 296)

### Tone Timings

<b>Description</b>	Specifies the pattern, in milliseconds, of ringback tones using up to 10 whole numbers (off 1, on 1, off 2, on 2...) separated by commas.  <b>Note</b> <ul style="list-style-type: none"> <li>It is recommended that you set a value of 60 milliseconds or more for the first value (off 1).</li> </ul>
<b>Value Range</b>	0–16000 (0: Infinite time)  <b>Note</b> <ul style="list-style-type: none"> <li>Avoid setting 1–50 for any of the values.</li> </ul>
<b>Default Value</b>	60,2000,3940
<b>Configuration File Reference</b>	RINGBACK_TONE_TIMING (Page 297)

### 4.6.5.4 Stutter Tone Tone Frequencies

<b>Description</b>	Specifies the dual-tone frequencies, in hertz, of stutter dial tones to notify that a voice mail is waiting, using 2 whole numbers separated by a comma.
<b>Value Range</b>	0, 200–2000 (0: No tone)  <b>Note</b> <ul style="list-style-type: none"> <li>If the value for this setting is "350,440", the unit will use a mixed signal of a 350 Hz tone and a 440 Hz tone.</li> </ul>
<b>Default Value</b>	350,440





## 4.6.6 Import Phonebook

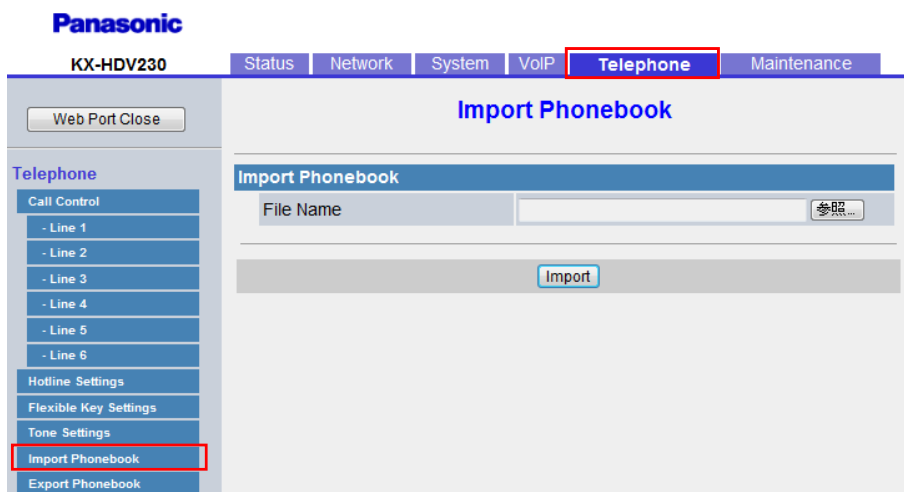
<b>Default Value</b>	60,250,190 <b>Note</b> <ul style="list-style-type: none"><li>Avoid setting 1–50 for any of the values.</li></ul>
<b>Configuration File Reference</b>	REORDER_TONE_TIMING (Page 296)

## 4.6.6 Import Phonebook

This screen allows you to import phonebook data from a PC to the specified unit. For details, see **6.1.1 Import/Export Operation**.

### Note

- If the existing phonebook data has an entry with the same name and phone number as an imported entry, the imported entry is not added as a new entry.
- When you begin transferring the phonebook data, the "Now Processing File Data" screen is displayed, and the screen is periodically reloaded. Depending on your Web browser, the screen might not reload automatically, and you will need to click the text "HERE" before the timer expires in order for the import operation to function properly.



### 4.6.6.1 Import Phonebook

#### File Name

<b>Description</b>	Specifies the path of the TSV (Tab-separated Value) file to import from the PC.
<b>Value Range</b>	No limitation <b>Note</b> <ul style="list-style-type: none"><li>There are no limitations for the field entry. However, it is recommended that paths of less than 256 characters be used: longer paths may cause longer data transfer times and result in an internal error.</li></ul>

Default Value	Not stored.
---------------	-------------

## 4.6.7 Export Phonebook

This screen allows you to save the phonebook data stored in the unit as a TSV file on a PC. For details, see **6.1.1 Import/Export Operation**.

### Note

- When you begin transferring the phonebook data, the "Now Processing File Data" screen is displayed, and the screen is periodically reloaded. Click the text "HERE" in the message to display the **[Export Phonebook]** screen again. If you do not, the "Now Processing File Data" screen remains displayed even if the export is complete. Depending on your Web browser, the screen might not reload automatically, and you will need to click the text "HERE" before the timer expires in order for the export operation to function properly.
- Depending on the security settings of your Web browser, pop-up menus might be blocked at the time of export. The security warning window may be displayed on another screen even if the Pop-up Blocker settings are set to enable, and the file may not be exported successfully. In this case, try the export operation again or disable the Pop-up Blocker feature of your Web browser.



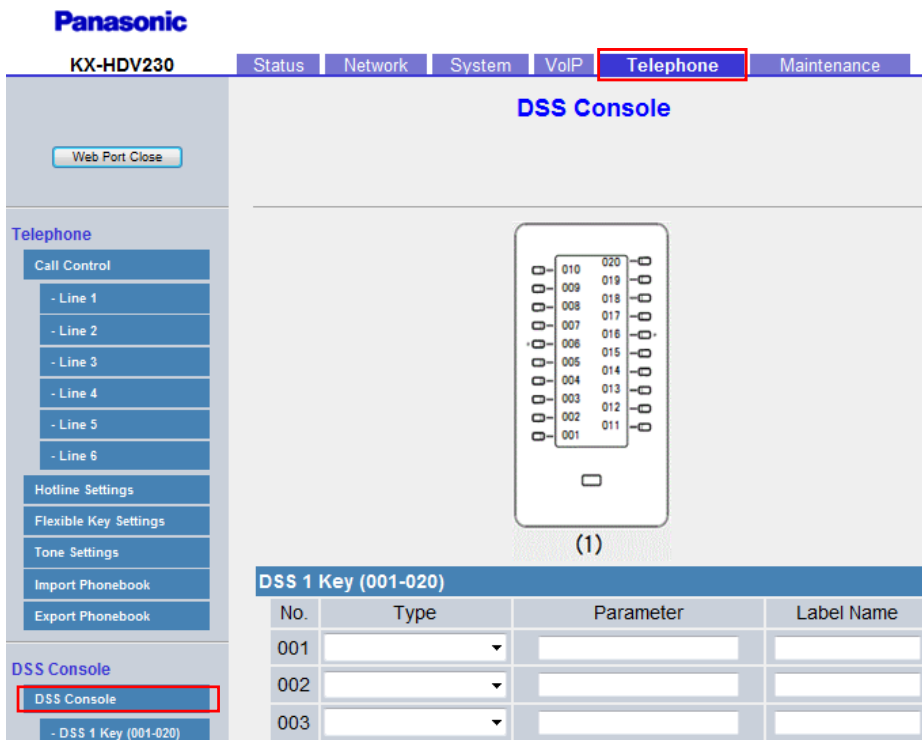
### 4.6.7.1 Export Phonebook

#### Export Phonebook

Click **[Export]** button to export the phonebook from this unit.

## 4.6.8 DSS Console

This screen allows you to configure various features for each DSS console key. Each DSS console supports 40 keys. DSS console 1 uses keys 1-40, DSS console 2 uses keys 41-80, etc.



**Panasonic**  
KX-HDV230

Status | Network | System | VoIP | **Telephone** | Maintenance

**DSS Console**

Web Port Close

**Telephone**

- Call Control
  - Line 1
  - Line 2
  - Line 3
  - Line 4
  - Line 5
  - Line 6
- Hotline Settings
- Flexible Key Settings
- Tone Settings
- Import Phonebook
- Export Phonebook

**DSS Console**

- DSS 1 Key (001-020)

(1)

DSS 1 Key (001-020)			
No.	Type	Parameter	Label Name
001	<input type="text"/>	<input type="text"/>	<input type="text"/>
002	<input type="text"/>	<input type="text"/>	<input type="text"/>
003	<input type="text"/>	<input type="text"/>	<input type="text"/>

### 4.6.8.1 DSS 1-5 Key (No. 1–200)

#### Type

Description	
	Selects the feature to be assigned to each DSS console key.

<b>Value Range</b>	<ul style="list-style-type: none"> <li>• One Touch Dial</li> <li>• BLF</li> <li>• Line</li> <li>• ACD</li> <li>• Wrap Up</li> <li>• Line Status</li> <li>• Call Forward</li> <li>• Phonebook</li> <li>• Call History</li> <li>• Simultaneous Ring</li> <li>• Hoteling (Hospitality)</li> <li>• Transfer</li> <li>• Blind Transfer</li> <li>• Conference</li> <li>• Directed Call Pickup</li> <li>• Call Park</li> <li>• Call Park Retrieve</li> </ul>
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	DSS_BUTTON_FACILITY_ACTx (Page 287)

## Parameter

<b>Description</b>	Specifies the necessary values for the features assigned to DSS console keys.
<b>Value Range</b>	Max. 34 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	DSS_BUTTON_FACILITY_ARGx (Page 288)

## Label Name

<b>Description</b>	Specifies the message to be displayed on the screen when the DSS console key is pressed.
<b>Value Range</b>	Max. 20 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	DSS_BUTTON_LABELx (Page 288)

# 4.7 Maintenance

This section provides detailed descriptions about all the settings classified under the **[Maintenance]** tab.

## 4.7.1 Provisioning Maintenance

This screen allows you to change the provisioning setup to download the configuration files from the provisioning server of your phone system.

The screenshot shows the Panasonic KX-HDV230 web interface. The 'Maintenance' tab is active. The 'Provisioning Maintenance' section includes the following fields:

- Standard File URL: [Empty text box]
- Product File URL: [Empty text box]
- Master File URL: [Empty text box]
- Cyclic Auto Resync:  Yes  No
- Resync Interval: 10080 minutes [1-40320]
- Time Resync: [Empty text box] [00:00-23:59, NULL: Disable]
- Header Value for Resync Event: check-sync

Buttons for 'Save' and 'Cancel' are located at the bottom of the configuration area.

### 4.7.1.1 Provisioning Maintenance

#### Standard File URL

<b>Description</b>	Specifies the URL of the standard configuration file, which is used when every unit needs different settings.
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	CFG_STANDARD_FILE_PATH (Page 195)

#### Product File URL

<b>Description</b>	Specifies the URL of the product configuration file, which is used when all units with the same model number need the same settings.
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	CFG_PRODUCT_FILE_PATH (Page 195)

#### Master File URL

<b>Description</b>	Specifies the URL of the master configuration file, which is used when all units need the same settings.
--------------------	--

<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	CFG_MASTER_FILE_PATH (Page 195)

## Cyclic Auto Resync

<b>Description</b>	Selects whether the unit periodically checks for updates of configuration files.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Default Value</b>	No
<b>Configuration File Reference</b>	CFG_CYCLIC (Page 195)

## Resync Interval

<b>Description</b>	Specifies the interval, in minutes, between periodic checks for updates of the configuration files.
<b>Value Range</b>	1–40320
<b>Default Value</b>	10080
<b>Configuration File Reference</b>	CFG_CYCLIC_INTVL (Page 196)

## Time Resync

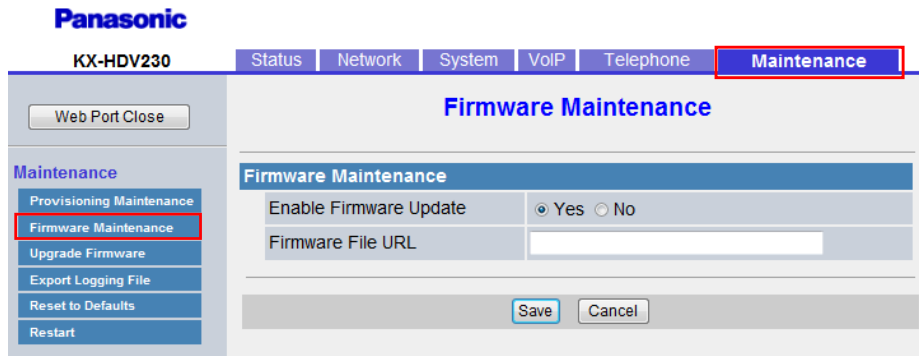
<b>Description</b>	Specifies the time (hour:minute) that the unit checks for updates of configuration files.
<b>Value Range</b>	00:00–23:59
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	CFG_RESYNC_TIME (Page 196)

## Header Value for Resync Event

<b>Description</b>	Specifies the value of the "Event" header sent from the SIP server to the unit so that the unit can access the configuration files on the provisioning server.
<b>Value Range</b>	Max. 15 characters
<b>Default Value</b>	check-sync
<b>Configuration File Reference</b>	CFG_RESYNC_FROM_SIP (Page 196)

## 4.7.2 Firmware Maintenance

This screen allows you to perform firmware updates automatically.



### 4.7.2.1 Firmware Maintenance

#### Enable Firmware Update

<b>Description</b>	Selects whether to perform firmware updates when the unit detects a newer version of firmware.  <b>Note</b> <ul style="list-style-type: none"> <li>Manual firmware updates from the Web user interface (→ see <b>4.7.3 Upgrade Firmware</b>) can be performed regardless of this setting.</li> <li>Firmware updates using TR-069 can be performed regardless of this setting.</li> </ul>
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Yes</li> <li>No</li> </ul>
<b>Default Value</b>	Yes
<b>Configuration File Reference</b>	FIRM_UPGRADE_ENABLE (Page 199)

#### Firmware File URL

<b>Description</b>	Specifies the URI where the firmware file is stored.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when [<b>Enable Firmware Update</b>] is set to [<b>Yes</b>].</li> </ul>
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Not stored.
<b>Configuration File Reference</b>	FIRM_FILE_PATH (Page 199)



## 4.7.3 Upgrade Firmware

This screen allows you to download the Upgrade Firmware data from a PC.

### Note

- After the firmware has been successfully updated, the unit will restart automatically.

The screenshot shows the Panasonic KX-HDV230 web interface. The top navigation bar includes 'Status', 'Network', 'System', 'VoIP', 'Telephone', and 'Maintenance' (highlighted with a red box). The left sidebar shows 'Maintenance' options: 'Provisioning Maintenance', 'Firmware Maintenance', 'Upgrade Firmware' (highlighted with a red box), 'Export Logging File', 'Reset to Defaults', and 'Restart'. The main content area is titled 'Upgrade Firmware' and contains a 'File Name' input field with a '参照...' button and an 'Upgrade Firmware' button.

### 4.7.3.1 Upgrade Firmware

#### File Name

<b>Description</b>	Specifies the path of the firmware file to be imported.
<b>Value Range</b>	No limitation  <b>Note</b> <ul style="list-style-type: none"> <li>• There are no limitations for the field entry. However, it is recommended that paths of less than 256 characters be used: longer paths may cause longer data transfer times and result in an internal error.</li> </ul>
<b>Default Value</b>	Not stored.

## 4.7.4 Export Logging File

This screen allows you to specify the Logging File to export when logging.

The screenshot shows the Panasonic KX-HDV230 web interface. The top navigation bar includes 'Status', 'Network', 'System', 'VoIP', 'Telephone', and 'Maintenance' (highlighted with a red box). The left sidebar shows 'Maintenance' options: 'Provisioning Maintenance', 'Firmware Maintenance', 'Upgrade Firmware', 'Export Logging File' (highlighted with a red box), 'Reset to Defaults', and 'Restart'. The main content area is titled 'Export Logging File' and contains a 'Logging File Type' selection with radio buttons for 'Power Down', 'Event', and 'SIP Packet', and an 'Export' button.

## 4.7.4.1 Export Logging File

### Logging File Type

<b>Description</b>	Selects the Logging File Type setting.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Power Down</li> <li>Event</li> <li>SIP Packet</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>The line break code for the log file is &lt;LF&gt;.</li> <li>If a file is exported when Power Down is selected, the saved file is power.log.</li> <li>If a file is exported when Event is selected, the saved file is event_log.txt.</li> <li>If a file is exported when SIP Packet is selected, the saved file is sip_trace_log.txt.</li> </ul>
<b>Default Value</b>	Power Down

## 4.7.5 Reset to Defaults

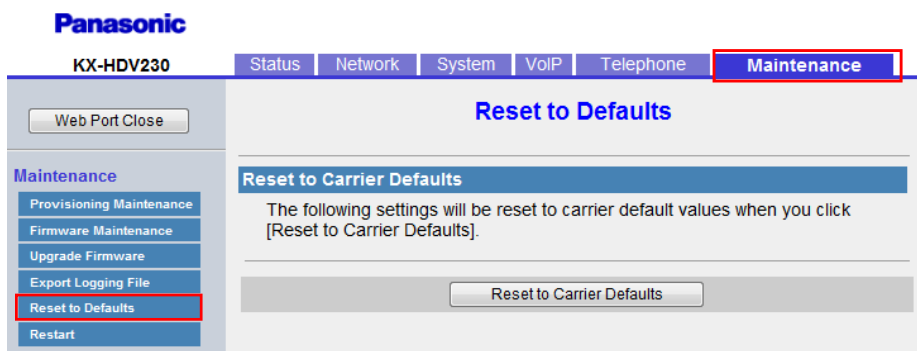
This screen allows you to reset the carrier default settings made through the Web user interface to their default values by clicking **[Reset to Carrier Defaults]**. After you click this button, a dialog box is displayed, asking whether you want to reset the settings. Click **OK** to reset, or **Cancel** not to.

**Notice**

- After resetting the settings, the unit will restart even if it is being accessed through the phone user interface, or on calls.

**Note**

- You can specify carrier default using configuration parameter extensions. Those parameters will be reset to the specified carrier default values. (→see **Parameter Extensions**)

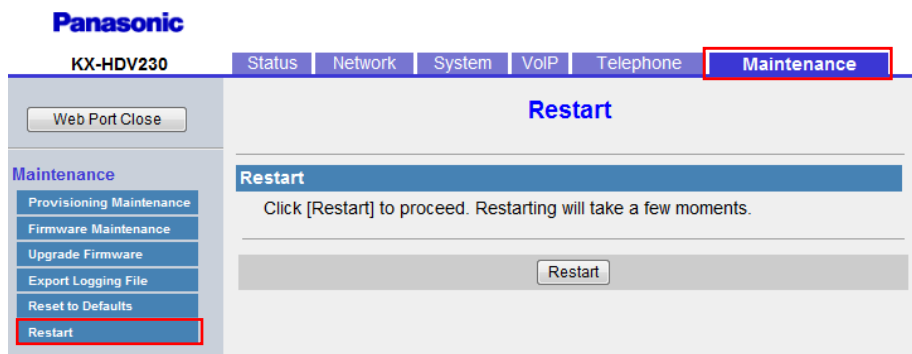


## 4.7.6 Restart

This screen allows you to restart the unit by clicking **[Restart]**. After you click this button, a dialog box is displayed, asking whether you want to restart the unit. Click **OK** to perform a restart, or **Cancel** not to.

**Notice**

- The unit will restart even if it is being accessed through the phone user interface, or on calls.



#### 4.7.6 Restart

---

---

## **Section 5**

# **Configuration File Programming**

*This section provides information about the configuration parameters used in the configuration files.*

## 5.1 Configuration File Parameter List

The following tables show all the parameters that can be programmed using configuration file programming. For details about each parameter, see the reference pages listed.

For details about configuration file specifications, see [2.4 Configuration File Specifications](#).

### System Settings

Parameter Name	Ref.
FACTORY_RESET_ENABLE	Page 185

### Basic Network Settings

Parameter Name	Ref.
IP_ADDR_MODE <sup>1</sup>	Page 186
CONNECTION_TYPE <sup>1</sup>	Page 186
STATIC_IP_ADDRESS <sup>1</sup>	Page 186
STATIC_SUBNET <sup>1</sup>	Page 186
STATIC_GATEWAY <sup>1</sup>	Page 187
USER_DNS1_ADDR <sup>1</sup>	Page 187
USER_DNS2_ADDR <sup>1</sup>	Page 188
DHCP_DNS_ENABLE <sup>1</sup>	Page 188
DHCP_HOST_NAME <sup>2</sup>	Page 188
DHCP_VENDOR_CLASS	Page 188
CONNECTION_TYPE_IPV6 <sup>1</sup>	Page 189
STATIC_IP_ADDRESS_IPV6 <sup>1</sup>	Page 189
PREFIX_IPV6 <sup>1</sup>	Page 189
STATIC_GATEWAY_IPV6 <sup>1</sup>	Page 189
USER_DNS1_ADDR_IPV6 <sup>1</sup>	Page 190
USER_DNS2_ADDR_IPV6 <sup>1</sup>	Page 190
DHCP_DNS_ENABLE_IPV6 <sup>1</sup>	Page 190

### Ethernet Port Settings

Parameter Name	Ref.
PHY_MODE_LAN <sup>1</sup>	Page 190

Parameter Name	Ref.
PHY_MODE_PC <sup>1</sup>	Page 191
VLAN_ENABLE <sup>1</sup>	Page 191
VLAN_ID_IP_PHONE <sup>1</sup>	Page 191
VLAN_PRI_IP_PHONE <sup>1</sup>	Page 192
VLAN_ID_PC <sup>1</sup>	Page 192
VLAN_PRI_PC <sup>1</sup>	Page 192
LLDP_ENABLE <sup>1</sup>	Page 192
LLDP_INTERVAL <sup>2</sup>	Page 193
LLDP_VLAN_ID_PC <sup>1</sup>	Page 193
LLDP_VLAN_PRI_PC <sup>1</sup>	Page 193

## Pre-Provisioning Settings

Parameter Name	Ref.
SIPPNP_PROV_ENABLE	Page 193
OPTION66_ENABLE	Page 194
OPTION159_PROV_ENABLE	Page 194
OPTION160_PROV_ENABLE	Page 194
DHCPV6_OPTION17_PROV_ENABLE	Page 194

## Provisioning Settings

Parameter Name	Ref.
CFG_STANDARD_FILE_PATH <sup>2</sup>	Page 195
CFG_PRODUCT_FILE_PATH <sup>2</sup>	Page 195
CFG_MASTER_FILE_PATH <sup>2</sup>	Page 195
CFG_CYCLIC <sup>2</sup>	Page 195
CFG_CYCLIC_INTVL <sup>2</sup>	Page 196
CFG_RESYNC_TIME <sup>2</sup>	Page 196
CFG_RTRY_INTVL	Page 196
CFG_RESYNC_FROM_SIP <sup>2</sup>	Page 196
CFG_RESYNC_ACTION	Page 197
CFG_FILE_KEY2	Page 197

## 5.1 Configuration File Parameter List

---

Parameter Name	Ref.
CFG_FILE_KEY3	Page 197
CFG_FILE_KEY_LENGTH	Page 198
CFG_ROOT_CERTIFICATE_PATH	Page 198
CFG_CLIENT_CERT_PATH	Page 198
CFG_PKEY_PATH	Page 198
HTTP_SSL_VERIFY	Page 199

## Firmware Update Settings

---

Parameter Name	Ref.
FIRM_UPGRADE_ENABLE <sup>2</sup>	Page 199
FIRM_FILE_PATH <sup>2</sup>	Page 199
FIRM_VERSION	Page 200

## HTTP Settings

---

Parameter Name	Ref.
HTTP_VER <sup>2</sup>	Page 200
HTTP_USER_AGENT <sup>2</sup>	Page 200
HTTP_AUTH_ID <sup>1</sup>	Page 201
HTTP_AUTH_PASS <sup>1</sup>	Page 201
HTTP_PROXY_ENABLE <sup>2</sup>	Page 201
HTTP_PROXY_ADDR <sup>2</sup>	Page 202
HTTP_PROXY_PORT <sup>2</sup>	Page 202
HTTP_PROXY_ID	Page 202
HTTP_PROXY_PASS	Page 202

## HTTPD/WEB Settings

---

Parameter Name	Ref.
HTTPD_LISTEN_PORT	Page 202
HTTPD_PORTOPEN_AUTO	Page 203
HTTPD_PORTCLOSE_TM	Page 203
USER_ID	Page 203



Parameter Name	Ref.
USER_PASS <sup>2</sup>	Page 203
ADMIN_ID	Page 204
ADMIN_PASS <sup>2</sup>	Page 204

## TR-069 Settings

Parameter Name	Ref.
ACS_URL	Page 204
ACS_USER_ID	Page 205
ACS_PASS	Page 205
PERIODIC_INFORM_ENABLE	Page 205
PERIODIC_INFORM_INTERVAL	Page 205
PERIODIC_INFORM_TIME	Page 206
CON_REQ_USER_ID	Page 206
CON_REQ_PASS	Page 206
ANNEX_G_STUN_ENABLE	Page 207
ANNEX_G_STUN_SERV_ADDR	Page 207
ANNEX_G_STUN_SERV_PORT	Page 207
ANNEX_G_STUN_USER_ID	Page 208
ANNEX_G_STUN_PASS	Page 208
ANNEX_G_STUN_MAX_KEEP_ALIVE	Page 208
ANNEX_G_STUN_MIN_KEEP_ALIVE	Page 208
UDP_CON_REQ_ADDR_NOTIFY_LIMIT	Page 209
DEVICE_PROVISIONING_CODE	Page 209

## XML Settings

Parameter Name	Ref.
XMLAPP_ENABLE <sup>2</sup>	Page 209
XMLAPP_USERID <sup>2</sup>	Page 210
XMLAPP_USERPASS <sup>2</sup>	Page 210
XMLAPP_LDAP_URL <sup>2</sup>	Page 210
XMLAPP_LDAP_USERID <sup>2</sup>	Page 210

## 5.1 Configuration File Parameter List

---

Parameter Name	Ref.
XMLAPP_LDAP_USERPASS <sup>2</sup>	Page 210
XMLAPP_NPB_SEARCH_TIMER	Page 211
XMLAPP_LDAP_MAXRECORD <sup>2</sup>	Page 211
XML_HTTPD_PORT <sup>2</sup>	Page 211
XML_ERROR_INFORMATION	Page 211
XMLAPP_START_URL <sup>2</sup>	Page 212
XMLAPP_INITIAL_URL <sup>2</sup>	Page 212
XMLAPP_INCOMING_URL <sup>2</sup>	Page 212
XMLAPP_TALKING_URL <sup>2</sup>	Page 212
XMLAPP_MAKECALL_URL <sup>2</sup>	Page 213
XMLAPP_CALLLOG_URL <sup>2</sup>	Page 213
XMLAPP_IDLING_URL <sup>2</sup>	Page 213
XML_INITIATE_KEY_SOFT1 <sup>2</sup>	Page 213
XML_INITIATE_KEY_SOFT2 <sup>2</sup>	Page 214
XML_INITIATE_KEY_SOFT3 <sup>2</sup>	Page 214
XMLAPP_FFKEY_ENABLE <sup>2</sup>	Page 214

## XSI Settings

---

Parameter Name	Ref.
XSI_ENABLE <sup>2</sup>	Page 214
XSI_SERVER <sup>2</sup>	Page 215
XSI_SERVER_TYPE <sup>2</sup>	Page 215
XSI_SERVER_PORT <sup>2</sup>	Page 215
XSI_USERID_n <sup>1</sup>	Page 215
XSI_PASSWORD_n <sup>1</sup>	Page 216
XSI_PHONEBOOK_ENABLE_n <sup>2</sup>	Page 216
XSI_PHONEBOOK_TYPE_n <sup>2</sup>	Page 216
XSI_CALLLOG_ENABLE_n <sup>2</sup>	Page 216

## XMPP (UC-ONE) Settings

Parameter Name	Ref.
UC_ENABLE <sup>2</sup>	Page 217
UC_USERID <sup>1</sup>	Page 217
UC_PASSWORD <sup>1</sup>	Page 217
XMPP_SERVER <sup>2</sup>	Page 217
XMPP_PORT <sup>2</sup>	Page 218
XMPP_TLS_VERIFY	Page 218
XMPP_ROOT_CERT_PATH	Page 218
XMPP_CLIENT_CERT_PATH	Page 218
XMPP_PKEY_PATH	Page 219

## LDAP Settings

Parameter Name	Ref.
LDAP_ENABLE <sup>2</sup>	Page 219
LDAP_DNSSRV_ENABLE <sup>2</sup>	Page 219
LDAP_SERVER <sup>2</sup>	Page 219
LDAP_SERVER_PORT <sup>2</sup>	Page 220
LDAP_MAXRECORD <sup>2</sup>	Page 220
LDAP_NUMB_SEARCH_TIMER	Page 220
LDAP_NAME_SEARCH_TIMER	Page 220
LDAP_USERID <sup>2</sup>	Page 220
LDAP_PASSWORD <sup>2</sup>	Page 221
LDAP_NAME_FILTER <sup>2</sup>	Page 221
LDAP_NUMB_FILTER <sup>2</sup>	Page 221
LDAP_NAME_ATTRIBUTE <sup>2</sup>	Page 221
LDAP_NUMB_ATTRIBUTE <sup>2</sup>	Page 222
LDAP_BASEDN <sup>2</sup>	Page 222
LDAP_SSL_VERIFY	Page 222
LDAP_ROOT_CERT_PATH	Page 222
LDAP_CLIENT_CERT_PATH	Page 222
LDAP_PKEY_PATH	Page 223

## Call Center Settings

Parameter Name	Ref.
CALL_CENTER_ENABLE_n <sup>2</sup>	Page 223
ACD_ENABLE_n <sup>2</sup>	Page 223
ACD_LOGIN_CONDITION_n	Page 223
ACD_LOGOUT_CONDITION_n	Page 224
CC_DISPOSITION_CODE_ENABLE_n <sup>2</sup>	Page 224
CC_CUSTOMER_ORG_TRACE_ENABLE_n <sup>2</sup>	Page 224
CC_HOTELING_EVENT_n <sup>2</sup>	Page 225
HOTELING_USERID_n <sup>2</sup>	Page 225
HOTELING_PASSWORD_n <sup>2</sup>	Page 225
CC_STATUS_EVENT_ENABLE_n <sup>2</sup>	Page 225

## SNMP Settings

Parameter Name	Ref.
SNMP_ENABLE	Page 226
SNMP_TRUST_IP	Page 226
SNMP_TRUST_PORT	Page 226
SNMP_RO_COMMUNITY_STRING	Page 226
SNMP_SECURITY_TYPE	Page 227
SNMP_SECURITY_USER	Page 227
SNMP_AUTH_TYPE	Page 227
SNMP_AUTH_PASSWORD	Page 227
SNMP_ENCRYPT_TYPE	Page 227
SNMP_ENCRYPT_PASSWORD	Page 228

## Multicast Paging Settings

Parameter Name	Ref.
MPAGE_ADDRm <sup>2</sup>	Page 228
MPAGE_IPV6_ADDRm <sup>2</sup>	Page 228
MPAGE_PORTm <sup>2</sup>	Page 228
MPAGE_PRIORITYm <sup>2</sup>	Page 229

Parameter Name	Ref.
MPAGE_LABEL <sup>m2</sup>	Page 229
MPAGE_SEND_ENABLE <sup>m2</sup>	Page 229
MPAGE_CODEC	Page 230
MPAGE_SP_VOL_EMERGENCY	Page 230
MPAGE_SP_VOL_PRIORITY	Page 230
MPAGE_DND_ENABLE	Page 230
MPAGE_FUNCKEY_ENABLE	Page 231

## NTP Settings

Parameter Name	Ref.
NTP_ADDR <sup>2</sup>	Page 231
TIME_SYNC_INTVL	Page 231
TIME_QUERY_INTVL <sup>2</sup>	Page 231

## Time Settings

Parameter Name	Ref.
LOCAL_TIME_ZONE_POSIX	Page 232
TIME_ZONE <sup>2</sup>	Page 232
DST_ENABLE <sup>2</sup>	Page 233
DST_OFFSET <sup>2</sup>	Page 233
DST_START_MONTH <sup>2</sup>	Page 234
DST_START_ORDINAL_DAY <sup>2</sup>	Page 234
DST_START_DAY_OF_WEEK <sup>2</sup>	Page 234
DST_START_TIME <sup>2</sup>	Page 235
DST_STOP_MONTH <sup>2</sup>	Page 235
DST_STOP_ORDINAL_DAY <sup>2</sup>	Page 236
DST_STOP_DAY_OF_WEEK <sup>2</sup>	Page 236
DST_STOP_TIME <sup>2</sup>	Page 236

## Network Phonebook (Common)

---

Parameter Name	Ref.
ONLY_NPB_ENABLE	Page 237
NETWORK_SEARCH_ENABLE	Page 237

## Language Settings

---

Parameter Name	Ref.
AVAILABLE_LANGUAGE <sup>2</sup>	Page 237
DEFAULT_LANGUAGE <sup>2</sup>	Page 238
LANGUAGE_PATHx	Page 238
LANGUAGE_VERx	Page 238
AVAILABLE_LANGUAGE_WEB <sup>2</sup>	Page 238
WEB_LANGUAGE <sup>2</sup>	Page 238
WEB_LANGUAGE_PATHx	Page 239
WEB_LANGUAGE_VERx	Page 239

## NAT Settings

---

Parameter Name	Ref.
STUN_SERV_ADDR <sup>2</sup>	Page 239
STUN_SERV_PORT <sup>2</sup>	Page 239
STUN_2NDSERV_ADDR	Page 240
STUN_2NDSERV_PORT	Page 240
STUN_INTVL <sup>2</sup>	Page 240
SIP_ADD_RPORT <sup>2</sup>	Page 240
PORT_PUNCH_INTVL <sup>2</sup>	Page 241
RTP_PORT_PUNCH_INTVL <sup>2</sup>	Page 241

## SIP Settings

---

Parameter Name	Ref.
SIP_USER_AGENT <sup>2</sup>	Page 241
PHONE_NUMBER_n <sup>2</sup>	Page 242

Parameter Name	Ref.
SIP_URI_n <sup>2</sup>	Page 242
SIP_RGSTR_ADDR_n <sup>2</sup>	Page 242
SIP_RGSTR_PORT_n <sup>2</sup>	Page 243
SIP_PRXY_ADDR_n <sup>2</sup>	Page 243
SIP_PRXY_PORT_n <sup>2</sup>	Page 243
SIP_PRSNC_ADDR_n <sup>2</sup>	Page 243
SIP_PRSNC_PORT_n <sup>2</sup>	Page 244
SIP_OUTPROXY_ADDR_n <sup>2</sup>	Page 244
SIP_OUTPROXY_PORT_n <sup>2</sup>	Page 244
SIP_SVCDOMAIN_n <sup>2</sup>	Page 244
SIP_AUTHID_n <sup>2</sup>	Page 245
SIP_PASS_n <sup>2</sup>	Page 245
SIP_SRC_PORT_n <sup>2</sup>	Page 245
DSCP_SIP_n <sup>2</sup>	Page 246
SIP_DNSSRV_ENA_n <sup>2</sup>	Page 246
SIP_UDP_SRV_PREFIX_n <sup>2</sup>	Page 246
SIP_TCP_SRV_PREFIX_n <sup>2</sup>	Page 247
REG_EXPIRE_TIME_n <sup>2</sup>	Page 247
REG_INTERVAL_RATE_n	Page 248
REG_RTX_INTVL_n	Page 248
USE_DEL_REG_OPEN_n	Page 248
USE_DEL_REG_CLOSE_n	Page 248
SIP_SESSION_TIME_n <sup>2</sup>	Page 249
SIP_SESSION_METHOD_n <sup>2</sup>	Page 249
SIP_TIMER_T1_n <sup>2</sup>	Page 249
SIP_TIMER_T2_n <sup>2</sup>	Page 250
SIP_TIMER_T4_n	Page 250
SIP_TIMER_B_n	Page 250
SIP_TIMER_D_n	Page 251
SIP_TIMER_F_n	Page 251
SIP_TIMER_H_n	Page 251
SIP_TIMER_J_n	Page 251
SIP_100REL_ENABLE_n <sup>2</sup>	Page 252

## 5.1 Configuration File Parameter List

Parameter Name	Ref.
SIP_18X_RTX_INTVL_n	Page 252
SIP_SUBS_EXPIRE_n	Page 252
SUB_INTERVAL_RATE_n	Page 253
SUB_RTX_INTVL_n	Page 253
SIP_P_PREFERRED_ID_n	Page 253
SIP_PRIVACY_n	Page 253
ADD_USER_PHONE_n	Page 254
SIP_ANM_DISPNAME_n	Page 254
SIP_ANM_USERNAME_n	Page 254
SIP_ANM_HOSTNAME_n	Page 255
SIP_DETECT_SSAF_n <sup>2</sup>	Page 255
SIP_RCV_DET_HEADER_n	Page 255
SIP_RCV_DET_REQURI_n	Page 256
SIP_CONTACT_ON_ACK_n	Page 256
VOICE_MESSAGE_AVAILABLE	Page 256
SIP_INVITE_EXPIRE_n	Page 257
SIP_FOVR_NORSP_n	Page 257
SIP_FOVR_MAX_n	Page 257
SIP_FOVR_MODE_n	Page 257
SIP_FOVR_DURATION_n	Page 258
SIP_ADD_ROUTE_n	Page 258
SIP_REQURI_PORT_n	Page 258
ADD_EXPIRES_HEADER_n	Page 259
ADD_TRANSPORT_UDP_n	Page 259
SIP_ADD_DIVERSION_n	Page 259
TRANSFER_RECALL_TIM	Page 260
SIGNAL_COMPRESSION_n	Page 260
MAX_BREADTH_n	Page 260
MUTIPART_BOUNDARY_DELIMITER_n	Page 260
RFC5626_KEEPA_LIVE_ENABLE_n	Page 261
RINGTONE_183_180_ENABLE_n	Page 261
SIP_403_REG_SUB_RTX_n	Page 261
SIP_FORK_MODE_n	Page 262



Parameter Name	Ref.
AKA_AUTHENTICATION_ENABLE_n	Page 262
RFC2543_HOLD_ENABLE_n <sup>2</sup>	Page 262
SIP_HOLD_ATTRIBUTE_n	Page 262
SDP_USER_ID_n	Page 263
TELEVENT_PAYLOAD <sup>2</sup>	Page 263
HOLD_SOUND_PATH_n	Page 263
KEEP_EARLYMEDIA_n	Page 264
RFC3327_SUPPORT_PATH	Page 264
RFC4244_SUPPORT_HISTORY	Page 264
RFC3319_SUPPORT_JOIN	Page 264
RFC6947_DRAFT08_ALTC	Page 265
RFC5627_SUPPORT_GRUU_n	Page 265
ESCAPECODE_CONVERSION	Page 265

## SIP-TLS Settings

Parameter Name	Ref.
SIP_TRANSPORT_n <sup>2</sup>	Page 265
SIP_TLS_MODE_n <sup>2</sup>	Page 266
SIP_TLS_RECONNECT_n	Page 266
SIP_TLS_SRV_PREFIX_n <sup>2</sup>	Page 266
SIP_TLS_VERIFY_n	Page 267
SIP_TLS_ROOT_CERT_PATH	Page 267
SIP_TLS_CLIENT_CERT_PATH	Page 267
SIP_TLS_PKEY_PATH	Page 267

## CODEC Settings

Parameter Name	Ref.
CODEC_G729_PARAM_n	Page 267
CODEC_ENABLEx_n <sup>2</sup>	Page 268
CODEC_PRIORITYx_n <sup>2</sup>	Page 268

## DTMF Settings

---

Parameter Name	Ref.
DTMF_METHOD_n <sup>2</sup>	Page 269
OUTBANDDTMF_VOL	Page 269
INBANDDTMF_VOL	Page 270
DTMF_SIGNAL_LEN	Page 270
DTMF_INTDIGIT_TIM	Page 270

## RTP/RTCP/RTCP-XR Settings

---

Parameter Name	Ref.
DSCP_RTP_n <sup>2</sup>	Page 270
DSCP_RTCP_n <sup>2</sup>	Page 270
MAX_DELAY_n	Page 271
MIN_DELAY_n	Page 271
NOM_DELAY_n	Page 271
RTP_PORT_MIN <sup>2</sup>	Page 272
RTP_PORT_MAX <sup>2</sup>	Page 272
RTP_PTIME <sup>2</sup>	Page 272
RTP_TARGET_CHECK	Page 272
RTCP_ENABLE_n <sup>2</sup>	Page 273
RTCP_INTVL_n <sup>2</sup>	Page 273
RTCP_SEND_BY_SDP_n	Page 273
RTP_CLOSE_ENABLE_n	Page 274
RTCPXR_ENABLE_n <sup>2</sup>	Page 274

## SRTP Settings

---

Parameter Name	Ref.
SRTP_CONNECT_MODE_n <sup>2</sup>	Page 274
SRTP_MIX_CONFERENCE_ENABLE_n <sup>2</sup>	Page 275
SRTP_MIX_TRANSFER_ENABLE_n <sup>2</sup>	Page 275
SRTP_HELD_CALL_RTP_ENABLE	Page 275

## VQ Report by PUBLISH

Parameter Name	Ref.
VQREPORT_COLLECTOR_ADDRESS <sup>2</sup>	Page 275
VQREPORT_COLLECTOR_PORT <sup>2</sup>	Page 276
VQREPORT_SEND <sup>2</sup>	Page 276
ALERT_REPORT_TRIGGER <sup>2</sup>	Page 276
ALERT_REPORT_MOSQ_CRITICAL <sup>2</sup>	Page 276
ALERT_REPORT_MOSQ_WARNING <sup>2</sup>	Page 277
ALERT_REPORT_DELAY_CRITICAL <sup>2</sup>	Page 277
ALERT_REPORT_DELAY_WARNING <sup>2</sup>	Page 277
VQREPORT_SIGNAL_COMPRESSION	Page 277

## uaCSTA Settings

Parameter Name	Ref.
UACSTA_ENABLE_n	Page 278
UACSTA_UNIQUE_ID	Page 278
CSTA_PORT	Page 278
CSTA_PRXY_ADDR	Page 278
CSTA_PRXY_PORT	Page 278
CSTA_RGSTR_ADDR	Page 279
CSTA_RGSTR_PORT	Page 279
CSTA_REG_EXPIRE_TIME	Page 279
CSTA_TRANSPORT	Page 279
CSTA_RGSTR_AUTHID	Page 279
CSTA_RGSTR_PASS	Page 280

## Telephone Settings

Parameter Name	Ref.
POWER_ON_DISPLAY_LOGO_PATH	Page 280
FIRSTDIGIT_TIM <sup>2</sup>	Page 280
INTDIGIT_TIM <sup>2</sup>	Page 280
POUND_KEY_DELIMITER_ENABLE <sup>2</sup>	Page 281

## 5.1 Configuration File Parameter List

---

Parameter Name	Ref.
RINGTONE_SETTING_n <sup>3</sup>	Page 281
DISPLAY_NAME_REPLACE	Page 281
NUMBER_MATCHING_LOWER_DIGIT	Page 281
NUMBER_MATCHING_UPPER_DIGIT	Page 282
FLASH_RECALL_TERMINATE	Page 282
FLASHHOOK_CONTENT_TYPE	Page 282
NUM_PLAN_PARKING <sup>2</sup>	Page 282
CALLPARK_KEY_ENABLE <sup>2</sup>	Page 282
NUM_PLAN_PARK_RETRIEVING <sup>2</sup>	Page 283
IDLE_SOFT_KEY_PARK_RETRIEVING <sup>2</sup>	Page 283
HOLD_RECALL_TIM	Page 283
HOLD_TRANSFER_OPERATION	Page 284
ONHOOK_TRANSFER_ENABLE	Page 284
ONHOOK_HOLD_TRNS_ENABLE	Page 284
BLIND_TRANSFER_ENABLE	Page 284
SYS_LOCK_ENABLE <sup>2</sup>	Page 284
SYS_LOCK_PASSWORD <sup>2</sup>	Page 285
PAUSE_INPUT_ENABLE	Page 285
NUM_PLAN_PICKUP_DIRECT <sup>2</sup>	Page 285

## Flexible Key Settings

---

Parameter Name	Ref.
FLEX_BUTTON_FACILITY_ACTx <sup>2</sup>	Page 285
FLEX_BUTTON_FACILITY_ARGx <sup>2</sup>	Page 286
FLEX_BUTTON_LABELx <sup>2</sup>	Page 286
FLEX_BUTTON_QUICK_DIALx	Page 287
LONG_PRESS_KEY_SETTING_ENABLE	Page 287

## DSS Key Settings

---

Parameter Name	Ref.
DSS_BUTTON_FACILITY_ACTx <sup>2</sup>	Page 287

Parameter Name	Ref.
DSS_BUTTON_FACILITY_ARGx <sup>2</sup>	Page 288
DSS_BUTTON_LABELx <sup>2</sup>	Page 288
DSS_BUTTON_QUICK_DIALx	Page 289

## Tone Settings

Parameter Name	Ref.
OUTSIDE_DIAL_TONE_FRQ	Page 289
OUTSIDE_DIAL_TONE_GAIN	Page 289
OUTSIDE_DIAL_TONE_RPT	Page 289
OUTSIDE_DIAL_TONE_TIMING	Page 290
CONFIRMATION_TONE5_FRQ	Page 290
CONFIRMATION_TONE5_GAIN	Page 290
REORDER_TONE_ENABLE	Page 290
TONE_LEN_DISCONNECT	Page 291
DIAL_TONE1_FRQ <sup>2</sup>	Page 291
DIAL_TONE1_GAIN	Page 291
DIAL_TONE1_RPT	Page 291
DIAL_TONE1_TIMING <sup>2</sup>	Page 291
DIAL_TONE2_FRQ	Page 292
DIAL_TONE2_GAIN	Page 292
DIAL_TONE2_RPT	Page 292
DIAL_TONE2_TIMING	Page 292
DIAL_TONE4_FRQ	Page 293
DIAL_TONE4_GAIN	Page 293
DIAL_TONE4_RPT	Page 293
DIAL_TONE4_TIMING	Page 293
BUSY_TONE_FRQ <sup>2</sup>	Page 294
BUSY_TONE_GAIN	Page 294
BUSY_TONE_RPT	Page 294
BUSY_TONE_TIMING	Page 295
REORDER_TONE_FRQ <sup>2</sup>	Page 295
REORDER_TONE_GAIN	Page 295

## 5.1 Configuration File Parameter List

---

Parameter Name	Ref.
REORDER_TONE_RPT	Page 295
REORDER_TONE_TIMING <sup>2</sup>	Page 296
RINGBACK_TONE_FRQ <sup>2</sup>	Page 296
RINGBACK_TONE_GAIN	Page 296
RINGBACK_TONE_RPT	Page 296
RINGBACK_TONE_TIMING <sup>2</sup>	Page 297
HOLD_ALARM_FRQ	Page 297
HOLD_ALARM_GAIN	Page 297
CW_TONE1_FRQ	Page 297
CW_TONE1_GAIN	Page 298
HOLD_TONE_FRQ	Page 298
HOLD_TONE_GAIN	Page 298
BELL_CORE_PATTERN1_TIMING	Page 298
BELL_CORE_PATTERN2_TIMING	Page 298
BELL_CORE_PATTERN3_TIMING	Page 299
BELL_CORE_PATTERN4_TIMING	Page 299
BELL_CORE_PATTERN5_TIMING	Page 299

## Call Control Settings

---

Parameter Name	Ref.
DEFAULT_LINE_SELECT <sup>1</sup>	Page 300
ANONYMOUS_CALL_ENABLE_n <sup>1</sup>	Page 300
BLOCK_ANONYMOUS_CALL_ENABLE_n <sup>1</sup>	Page 300
HOTLINE_ENABLE <sup>2</sup>	Page 301
HOTLINE_NUMBER <sup>2</sup>	Page 301
HOTLINE_TIM <sup>2</sup>	Page 301
DISPLAY_NAME_n <sup>2</sup>	Page 301
VM_SUBSCRIBE_ENABLE <sup>2</sup>	Page 302
VM_NUMBER_n <sup>2</sup>	Page 302
DIAL_PLAN_n <sup>2</sup>	Page 302
DIAL_PLAN_NOT_MATCH_ENABLE_n <sup>2</sup>	Page 303
MACRODIGIT_TIM <sup>2</sup>	Page 303

Parameter Name	Ref.
INTERNATIONAL_ACCESS_CODE <sup>2</sup>	Page 303
COUNTRY_CALLING_CODE <sup>2</sup>	Page 304
NATIONAL_ACCESS_CODE <sup>2</sup>	Page 304
IDLE_SOFT_KEY_A <sup>2</sup>	Page 304
IDLE_SOFT_KEY_B <sup>2</sup>	Page 305
IDLE_SOFT_KEY_C <sup>2</sup>	Page 305
ADMIN_ABILITY_ENABLE <sup>2</sup>	Page 305
EMERGENCY_CALLx <sup>2</sup>	Page 306
CALL_REJECTIONx <sup>1</sup>	Page 306
CLICKTO_ENABLE_n <sup>2</sup>	Page 306
CALLPARK_NOTIFICATION_ENABLE_n <sup>2</sup>	Page 306
SHARED_CALL_ENABLE_n <sup>2</sup>	Page 307
FWD_DND_SYNCHRO_ENABLE_n <sup>2</sup>	Page 307
MOH_SERVER_URI_n <sup>2</sup>	Page 308
FWD_DND_CONTROL_ENABLE	Page 308
FWD_DND_SYNCHRO_MODE	Page 308
HOLD_AND_CALL_ENABLE	Page 308
AUTO_CALL_HOLD	Page 309
SIP_RESPONSE_CODE_DND	Page 309
SIP_RESPONSE_CODE_CALL_REJECT	Page 309
CW_ENABLE_n <sup>2</sup>	Page 309
RETURN_VOL_SET_DEFAULT_ENABLE	Page 309
CONFERENCE_SERVER_URI <sup>2</sup>	Page 310
RESOURCELIST_URI_n <sup>2</sup>	Page 310

## Logging Settings

Parameter Name	Ref.
SYSLOG_ADDR	Page 310
SYSLOG_PORT	Page 310
LOGGING_LEVEL_DNS	Page 311
LOGGING_LEVEL_NW1	Page 311
LOGGING_LEVEL_FILE	Page 311

## 5.2.1 Configuration File Parameters

---

Parameter Name	Ref.
LOGGING_LEVEL_SIP	Page 311
LOGGING_LEVEL_TR069	Page 311
LOGGING_LEVEL_STUN	Page 312
LOGGING_LEVEL_NW2	Page 312
LOGGING_LEVEL_CFGPARSE	Page 312

<sup>1</sup> This setting can also be configured through other programming methods (phone user interface programming or Web user interface programming).

<sup>2</sup> This setting can also be configured through the Web user interface.

<sup>3</sup> This setting can also be configured through the Phone user interface programming.

## 5.2 General Information on the Configuration Files

---

### 5.2.1 Configuration File Parameters

The information on each parameter that can be written in a configuration file is shown in the tables below. The information includes parameter name (as the title of the table), value format, description, permitted value range, default value of each parameter, phone user interface reference, and Web user interface reference.

#### Parameter Name

This is the system-predefined parameter name and cannot be changed.

#### Note

- Certain parameter names end with "**\_n**". This signifies that these settings can be made to each line individually. The number of lines available varies depending on the phone being used, as follows:
  - KX-HDV230: 1–6

#### Value Format

Each parameter value is categorized into Integer, Boolean, or String. Some parameters require a composite form such as "Comma-separated Integer" or "Comma-separated String".

- **Integer:** a numerical value, described as a sequence of numerical characters, optionally preceded by a "-" (minus)  
An empty string is not allowed.
- **Boolean:** "Y" or "N"
- **String:** sequence of alphanumerical characters  
For details about available characters, see **5.2.2 Characters Available for String Values**.
- **Comma-separated Integer:** a list of integers, separated by commas  
No space characters are allowed.
- **Comma-separated String:** a list of strings, separated by commas  
No space characters are allowed.
- **IPADDR:** IPv4 address format.
- **IPADDR-V6:** IPv6 address format (can be abbreviated).

#### Description

Describes the details of the parameter.



**Value Range**

Indicates the permitted value range of the parameter.

**Default Value**

Indicates the factory default value of the parameter.

Actual default values may vary depending on your phone system dealer/service provider.

**Phone User Interface Reference**

Provides the reference page of the corresponding parameter in phone user interface programming.

**Web User Interface Reference**

Provides the reference page of the corresponding parameter in Web user interface programming.

## 5.2.2 Characters Available for String Values

Unless noted otherwise in "Value Range", only ASCII characters can be used for parameter values. Unicode characters can also be used in some parameter values.

Available ASCII characters are shown on a white background in the following table:

	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
20	SP	!	"	#	\$	%	&	'	(	)	*	+	,	-	.	/
30	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
40	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
50	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
60	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
70	p	q	r	s	t	u	v	w	x	y	z	{		}	~	

## 5.3 System Settings

### 5.3.1 System Settings

#### FACTORY\_RESET\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable the operation of factory default and carrier default.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Y: Enable factory reset operation</li> <li>N: Disable</li> </ul>
<b>Default Value</b>	Y

## 5.3.2 Basic Network Settings

### IP\_ADDR\_MODE

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the IP addressing mode.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 0: IPv4</li> <li>• 1: IPv6</li> <li>• 2: IPv4&amp;IPv6</li> </ul>
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	IP Addressing Mode (Page 77)

### CONNECTION\_TYPE

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies whether to assign the IP address automatically (DHCP) or manually (static) for IPv4.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 0: Static</li> <li>• 1: DHCP</li> </ul>
<b>Default Value</b>	1
<b>Web User Interface Reference</b>	Connection Mode (Page 77)

### STATIC\_IP\_ADDRESS

<b>Value Format</b>	IPADDR
<b>Description</b>	<p>Specifies the IP address for the unit for IPv4.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• This setting is available only when "CONNECTION_TYPE" is set to "0".</li> <li>• When you specify this parameter, you must specify "STATIC_SUBNET" together in a configuration file.</li> </ul>
<b>Value Range</b>	Max. 15 characters n.n.n.n [n=0–255]
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	IP Address (Page 78)

### STATIC\_SUBNET

<b>Value Format</b>	IPADDR
---------------------	--------

<b>Description</b>	Specifies the subnet mask for IPv4.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when "CONNECTION_TYPE" is set to "0".</li> <li>When you specify this parameter, you must specify "STATIC_IP_ADDRESS" together in a configuration file.</li> </ul>
<b>Value Range</b>	Max. 15 characters n.n.n.n [n=0–255]
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Subnet Mask (Page 78)

## STATIC\_GATEWAY

<b>Value Format</b>	IPADDR
<b>Description</b>	Specifies the IP address of the default gateway for the IPv4 network where the unit is connected.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when "CONNECTION_TYPE" is set to "0".</li> <li>When you specify this parameter, you must specify "STATIC_IP_ADDRESS" and "STATIC_SUBNET" together in a configuration file.</li> </ul>
<b>Value Range</b>	Max. 15 characters n.n.n.n [n=0–255]
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Default Gateway (Page 78)

## USER\_DNS1\_ADDR

<b>Value Format</b>	IPADDR
<b>Description</b>	Specifies the IP address of the primary DNS server for IPv4.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when "CONNECTION_TYPE" is set to "0".</li> </ul>
<b>Value Range</b>	Max. 15 characters n.n.n.n [n=0–255]
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	DNS1 (Page 79)

## USER\_DNS2\_ADDR

<b>Value Format</b>	IPADDR
<b>Description</b>	Specifies the IP address of the secondary DNS server for IPv4.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when "CONNECTION_TYPE" is set to "0".</li> </ul>
<b>Value Range</b>	Max. 15 characters n.n.n.n [n=0–255]
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	DNS2 (Page 79)

## DHCP\_DNS\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable using the DNS server obtained by DHCPv4.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when "CONNECTION_TYPE" is set to "1".</li> </ul>
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Ⓜ: Not use (use static DNS)</li> <li>Ⓝ: Use DNS obtained by DHCPv4</li> </ul>
<b>Default Value</b>	Ⓝ
<b>Web User Interface Reference</b>	Auto DNS via DHCP (Page 79)

## DHCP\_HOST\_NAME

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the host name to option12 in DHCPv4 or option15 in DHCPv6.
<b>Value Range</b>	Max. 64 characters
<b>Default Value</b>	{MODEL}
<b>Web User Interface Reference</b>	DHCP Host Name (Page 78)

## DHCP\_VENDOR\_CLASS

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the vendor class to option60 in DHCPv4 or option16 in DHCPv6.
<b>Value Range</b>	Max. 64 characters

<b>Default Value</b>	Panasonic
----------------------	-----------

## CONNECTION\_TYPE\_IPV6

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the IP address setting mode for IPv6.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 0: Static</li> <li>• 1: DHCP</li> <li>• 2: Stateless Autoconfiguration</li> </ul>
<b>Default Value</b>	1
<b>Web User Interface Reference</b>	Connection Mode (Page 79)

## STATIC\_IP\_ADDRESS\_IPV6

<b>Value Format</b>	IPADDR-V6
<b>Description</b>	Specifies the IP address for IPv6.
<b>Value Range</b>	Max. 39 characters n:n:n:n:n:n:n [n=0-FFFF, abbreviation available]
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	IP Address (Page 80)

## PREFIX\_IPV6

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the prefix for IPv6.
<b>Value Range</b>	0–128
<b>Default Value</b>	64
<b>Web User Interface Reference</b>	Prefix (Page 80)

## STATIC\_GATEWAY\_IPV6

<b>Value Format</b>	IPADDR-V6
<b>Description</b>	Specifies the default gateway for IPv6.
<b>Value Range</b>	Max. 39 characters n:n:n:n:n:n:n [n=0-FFFF, abbreviation available]
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Default Gateway (Page 80)

**USER\_DNS1\_ADDR\_IPV6**

<b>Value Format</b>	IPADDR-V6
<b>Description</b>	Specifies the IP address of primary DNS server for IPv6.
<b>Value Range</b>	Max. 39 characters n:n:n:n:n:n:n [n=0-FFFF, abbreviation available]
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	DNS1 (Page 81)

**USER\_DNS2\_ADDR\_IPV6**

<b>Value Format</b>	IPADDR-V6
<b>Description</b>	Specifies the IP address of secondary DNS server for IPv6.
<b>Value Range</b>	Max. 39 characters n:n:n:n:n:n:n [n=0-FFFF, abbreviation available]
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	DNS2 (Page 81)

**DHCP\_DNS\_ENABLE\_IPV6**

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable using the DNS server obtained by DHCPv6.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <math>\mathcal{Y}</math>: Not use (use static DNS)</li> <li>• <math>\mathcal{N}</math>: Use DNS obtained by DHCPv6</li> </ul>
<b>Default Value</b>	$\mathcal{N}$
<b>Web User Interface Reference</b>	Auto DNS via DHCP (Page 81)

**5.3.3 Ethernet Port Settings****PHY\_MODE\_LAN**

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the link speed and duplex mode of the LAN port.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 1: Auto</li> <li>• 2: 100Mbps/Full Duplex</li> <li>• 3: 100Mbps/Half Duplex</li> <li>• 4: 10Mbps/Full Duplex</li> <li>• 5: 10Mbps/Half Duplex</li> </ul>
<b>Default Value</b>	1

<b>Web User Interface Reference</b>	LAN Port (Page 82)
-------------------------------------	--------------------

## PHY\_MODE\_PC

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the link speed and duplex mode of the PC port.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 1: Auto</li> <li>• 2: 100Mbps/Full Duplex</li> <li>• 3: 100Mbps/Half Duplex</li> <li>• 4: 10Mbps/Full Duplex</li> <li>• 5: 10Mbps/Half Duplex</li> </ul>
<b>Default Value</b>	1
<b>Web User Interface Reference</b>	PC Port (Page 82)

## VLAN\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	<p>Specifies whether to use the VLAN feature to perform VoIP communication securely.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• You should specify "Y" for only one of "LLDP_ENABLE" or "VLAN_ENABLE".</li> </ul> <p>If "Y" is specified for two or more of the parameters above, the settings are prioritized as follows: "VLAN_ENABLE" &gt; "LLDP_ENABLE". Therefore, if "Y" is specified for both "VLAN_ENABLE" and "LLDP_ENABLE", the VLAN-related settings are used.</p>
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Y (Enable)</li> <li>• N (Disable)</li> </ul>
<b>Default Value</b>	N
<b>Web User Interface Reference</b>	Enable VLAN (Page 84)

## VLAN\_ID\_IP\_PHONE

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the VLAN ID for this unit.
<b>Value Range</b>	0–4094
<b>Default Value</b>	2
<b>Web User Interface Reference</b>	IP Phone VLAN ID (Page 84)

## VLAN\_PRI\_IP\_PHONE

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the priority number for the unit.
<b>Value Range</b>	0–7
<b>Default Value</b>	7
<b>Web User Interface Reference</b>	IP Phone Priority (Page 84)

## VLAN\_ID\_PC

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the VLAN ID for the PC.
<b>Value Range</b>	0–4094
<b>Default Value</b>	1
<b>Web User Interface Reference</b>	PC VLAN ID (Page 84)

## VLAN\_PRI\_PC

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the priority number for the PC.
<b>Value Range</b>	0–7
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	PC Priority (Page 85)

## LLDP\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable the LLDP-MED feature.  <b>Note</b> <ul style="list-style-type: none"> <li>You should specify "Y" for only one of "LLDP_ENABLE", or "VLAN_ENABLE". If "Y" is specified for two or more of the parameters above, the settings are prioritized as follows: <b>VLAN_ENABLE &gt; LLDP_ENABLE</b>. Therefore, if "Y" is specified for both "VLAN_ENABLE" and "LLDP_ENABLE", the VLAN-related settings are used.</li> </ul>
<b>Value Range</b>	<ul style="list-style-type: none"> <li><b>Y</b>: Enable LLDP-MED</li> <li><b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>Y</b>



<b>Web User Interface Reference</b>	Enable LLDP (Page 83)
-------------------------------------	-----------------------

## LLDP\_INTERVAL

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the interval, in seconds, between sending each LLDP frame.
<b>Value Range</b>	1–3600
<b>Default Value</b>	30
<b>Web User Interface Reference</b>	Packet Interval (Page 83)

## LLDP\_VLAN\_ID\_PC

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the VLAN ID for the PC when LLDP is on.
<b>Value Range</b>	0–4094
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	PC VLAN ID (Page 83)

## LLDP\_VLAN\_PRI\_PC

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the VLAN Priority for the PC when LLDP is on.
<b>Value Range</b>	0-7
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	PC Priority (Page 83)

## 5.3.4 Pre-Provisioning Settings

### SIPPNP\_PROV\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable the SIP PNP provisioning.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable SIP PnP provisioning</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>Y</b>

## OPTION66\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable the DHCP option 66 provisioning.  <b>Note</b> <ul style="list-style-type: none"> <li>The unit will try to download configuration files through the TFTP server, the IP address or FQDN of which is specified in the option number 66 field.</li> </ul>
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Y: Enable DHCP option66 provisioning</li> <li>N: Disable</li> </ul>
<b>Default Value</b>	Y

## OPTION159\_PROV\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable the DHCP option159 provisioning.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Y: Enable DHCP option159 provisioning</li> <li>N: Disable</li> </ul>
<b>Default Value</b>	Y

## OPTION160\_PROV\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable the DHCP option160 provisioning.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Y: Enable DHCP option160 provisioning</li> <li>N: Disable</li> </ul>
<b>Default Value</b>	Y

## DHCPV6\_OPTION17\_PROV\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable DHCPv6 option17 provisioning.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Y: Enable DHCPv6 option17 provisioning</li> <li>N: Disable</li> </ul>
<b>Default Value</b>	Y

## 5.3.5 Provisioning Settings

### CFG\_STANDARD\_FILE\_PATH

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URL of the standard configuration file, which is used when every unit needs different settings.
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Standard File URL (Page 158)

### CFG\_PRODUCT\_FILE\_PATH

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URL of the product configuration file, which is used when all units with the same model number need the same settings.
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Product File URL (Page 158)

### CFG\_MASTER\_FILE\_PATH

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URL of the master configuration file, which is used when all units need the same settings.
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Master File URL (Page 158)

### CFG\_CYCLIC

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether the unit periodically checks for updates of configuration files.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable periodic synchronization</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Cyclic Auto Resync (Page 159)

## CFG\_CYCLIC\_INTVL

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the interval, in minutes, between periodic checks for updates of the configuration files.
<b>Value Range</b>	1–40320
<b>Default Value</b>	10080
<b>Web User Interface Reference</b>	Resync Interval (Page 159)

## CFG\_RESYNC\_TIME

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the time (hour:minute) that the unit checks for updates of configuration files.
<b>Value Range</b>	00:00–23:59  <b>Note</b> <ul style="list-style-type: none"> <li>If the value for this setting is any valid value other than an empty string, the unit downloads the configuration files at the fixed time, and the settings specified in "CFG_CYCLIC", "CFG_CYCLIC_INTVL", and "CFG_RTRY_INTVL" are disabled.</li> <li>If the value for this setting is an empty string, downloading the configuration files at the fixed time are disabled.</li> </ul>
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Time Resync (Page 159)

## CFG\_RTRY\_INTVL

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the period of time, in minutes, that the unit will retry checking for an update of the configuration files after a configuration file access error has occurred.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when "CFG_CYCLIC" is set to "Y".</li> </ul>
<b>Value Range</b>	1–1440
<b>Default Value</b>	30

## CFG\_RESYNC\_FROM\_SIP

<b>Value Format</b>	STRING
---------------------	--------

<b>Description</b>	Specifies the value of the "Event" header sent from the SIP server to the unit so that the unit can access the configuration files on the provisioning server.
<b>Value Range</b>	Max. 15 characters
<b>Default Value</b>	check-sync
<b>Web User Interface Reference</b>	Header Value for Resync Event (Page 159)

## CFG\_RESYNC\_ACTION

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the value of the action after received resync NOTIFY.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 0: Provisioning</li> <li>• 1: TR-069 Inform</li> <li>• 2: Reboot</li> </ul>
<b>Default Value</b>	0

## CFG\_FILE\_KEY2

<b>Value Format</b>	STRING
<b>Description</b>	<p>Specifies the encryption key (password) used to decrypt configuration files.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• If the extension of the configuration file is ".e2c", the configuration file will be decrypted using this key.</li> </ul>
<b>Value Range</b>	<p>32 characters</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• If an empty string is set for this parameter, decryption with this value is disabled.</li> </ul>
<b>Default Value</b>	Empty string

## CFG\_FILE\_KEY3

<b>Value Format</b>	STRING
<b>Description</b>	<p>Specifies the encryption key (password) used to decrypt configuration files.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• If the extension of the configuration file is ".e3c", the configuration file will be decrypted using this key.</li> </ul>

### 5.3.5 Provisioning Settings

---

<b>Value Range</b>	32 characters <b>Note</b> <ul style="list-style-type: none"><li>If an empty string is set for this parameter, decryption with this value is disabled.</li></ul>
<b>Default Value</b>	Empty string

### CFG\_FILE\_KEY\_LENGTH

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the key lengths in bits used to decrypt configuration files.
<b>Value Range</b>	128,192, 256
<b>Default Value</b>	192

### CFG\_ROOT\_CERTIFICATE\_PATH

---

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URI where the root certificate is stored. <b>Note</b> <ul style="list-style-type: none"><li>Changing this setting may require restarting the unit.</li></ul>
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string

### CFG\_CLIENT\_CERT\_PATH

---

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URI where the client certificate is stored.
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string

### CFG\_PKEY\_PATH

---

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URI where the private key is stored.
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string

## HTTP\_SSL\_VERIFY

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies whether to enable the verification of the root certificate.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 0 (No verification of root certificate)</li> <li>• 1 (Simple verification of root certificate)</li> <li>• 2 (Precise verification of root certificate)</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• If set to "0", the verification of the root certificate is disabled.</li> <li>• If set to "1", the verification of the root certificate is enabled. In this case, the validity of the certificate's date, certificate's chain, and the confirmation of the root certificate will be verified.</li> <li>• If set to "2", precise certificate verification is enabled. In this case, the validity of the server name will be verified in addition to the items verified when "1" is set.</li> <li>• If the unit has not obtained the current time, verification will not be performed irrelevant of this setting. In order to perform verification it is necessary to first set up the NTP server.</li> </ul>
<b>Default Value</b>	0

## 5.3.6 Firmware Update Settings

### FIRM\_UPGRADE\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to perform firmware updates when the unit detects a newer version of firmware.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Y (Enable firmware updates)</li> <li>• N (Disable firmware updates)</li> </ul>
<b>Default Value</b>	Y
<b>Web User Interface Reference</b>	Enable Firmware Update (Page 160)

### FIRM\_FILE\_PATH

<b>Value Format</b>	STRING
---------------------	--------

### 5.3.7 HTTP Settings

---

<b>Description</b>	Specifies the URL where the firmware file is stored. <b>Note</b> <ul style="list-style-type: none"><li>This setting is available only when "FIRM_UPGRADE_ENABLE" is set to "Y".</li></ul>
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Firmware File URL (Page 160)

### FIRM\_VERSION

---

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the firmware version of the unit.
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	Empty string

## 5.3.7 HTTP Settings

### HTTP\_VER

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies which version of the HTTP protocol to use for HTTP communication.
<b>Value Range</b>	<ul style="list-style-type: none"><li>1 (Use HTTP 1.0)</li><li>0 (Use HTTP 1.1)</li></ul> <b>Note</b> <ul style="list-style-type: none"><li>For this unit, it is strongly recommended that you specify "1" for this setting. However, if the HTTP server does not function well with HTTP 1.0, try changing the setting "0".</li></ul>
<b>Default Value</b>	1
<b>Web User Interface Reference</b>	HTTP Version (Page 85)

### HTTP\_USER\_AGENT

---

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the text string to send as the user agent in the header of HTTP requests.



<b>Value Range</b>	Max. 64 characters  <b>Note</b> <ul style="list-style-type: none"> <li>• If "{mac}" is included in this parameter, it will be replaced with the unit's MAC address in lower-case.</li> <li>• If "{MAC}" is included in this parameter, it will be replaced with the unit's MAC address in upper-case.</li> <li>• If "{MODEL}" is included in this parameter, it will be replaced with the unit's model name.</li> <li>• If "{fwver}" is included in this parameter, it will be replaced with the firmware version of the unit.</li> </ul>
<b>Default Value</b>	Panasonic_{MODEL}/{fwver} ({mac})
<b>Web User Interface Reference</b>	HTTP User Agent (Page 86)

## HTTP\_AUTH\_ID

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the authentication ID required to access the HTTP server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Authentication ID (Page 86)

## HTTP\_AUTH\_PASS

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the authentication password required to access the HTTP server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Authentication Password (Page 86)

## HTTP\_PROXY\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable the HTTP proxy feature.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable HTTP proxy connect</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable Proxy (Page 87)

## HTTP\_PROXY\_ADDR

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the IP address or FQDN of the proxy server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Proxy Server Address (Page 87)

## HTTP\_PROXY\_PORT

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the port of the proxy server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	8080
<b>Web User Interface Reference</b>	Proxy Server Port (Page 87)

## HTTP\_PROXY\_ID

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the user ID for connecting HTTP proxy.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Empty string

## HTTP\_PROXY\_PASS

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the password for connecting HTTP proxy.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Empty string

## 5.3.8 HTTPD/WEB Settings

### HTTPD\_LISTEN\_PORT

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the port number of own HTTP server.
<b>Value Range</b>	80, 1024–49151

Default Value	80
---------------	----

## HTTPD\_PORTOPEN\_AUTO

Value Format	BOOLEAN
Description	Specifies whether the unit's Web port is always open.
Value Range	<ul style="list-style-type: none"> <li>Y (Web port is always open)</li> <li>N (Web port is closed [can be opened temporarily through phone user interface programming])</li> </ul> <p><b>Notice</b></p> <ul style="list-style-type: none"> <li>If you want to set to "Y", please fully recognize the possibility of unauthorized access to the unit through the Web user interface and change this setting at your own risk. In addition, please take full security measures for connecting to an external network and control all passwords for logging in to the Web user interface.</li> </ul>
Default Value	N

## HTTPD\_PORTCLOSE\_TM

Value Format	INTEGER
Description	Specifies port close time when keeping the no action.
Value Range	1–1440
Default Value	30

## USER\_ID

Value Format	STRING
Description	Specifies the account ID used to access the Web user interface with the User account.
Value Range	<p>Max. 16 characters (except !, ", #, \$, %, &amp;, ', (, ), *, +, ,, /, :, ;, &lt;, =, &gt;, ?, [, ], ^, `, {,  , }, ~, \ and space)</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>An empty string is not allowed.</li> </ul>
Default Value	user

## USER\_PASS

Value Format	STRING
--------------	--------

### 5.3.9 TR-069 Settings

<b>Description</b>	Specifies the password to use to authenticate the User account when logging in to the Web user interface.
<b>Value Range</b>	6–64 characters (except !, ", #, \$, %, &, ', (, ), *, +, ,, /, :, ;, <, =, >, ?, [, ], ^, `, {,  , }, ~, \ and space)
<b>Default Value</b>	Empty string (only before a user accesses the Web user interface for the first time)
<b>Web User Interface Reference</b>	New Password (Page 110)

### ADMIN\_ID

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the account ID used to access the Web user interface with the Admin account.
<b>Value Range</b>	Max. 16 characters (except !, ", #, \$, %, &, ', (, ), *, +, ,, /, :, ;, <, =, >, ?, [, ], ^, `, {,  , }, ~, \ and space)  <b>Note</b> <ul style="list-style-type: none"><li>An empty string is not allowed.</li></ul>
<b>Default Value</b>	admin

### ADMIN\_PASS

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the password to use to authenticate the Administrator account when logging in to the Web user interface.
<b>Value Range</b>	6–64 characters (except !, ", #, \$, %, &, ', (, ), *, +, ,, /, :, ;, <, =, >, ?, [, ], ^, `, {,  , }, ~, \ and space)
<b>Default Value</b>	adminpass
<b>Web User Interface Reference</b>	New Password (Page 112)

## 5.3.9 TR-069 Settings

### ACS\_URL

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URL of the Auto-Configuration Server for using TR-069.  <b>Note</b> <ul style="list-style-type: none"><li>This parameter must be in the form of a valid HTTP or HTTPS URL, as defined in RFC 3986.</li></ul>

<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string

## ACS\_USER\_ID

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the user ID for the Auto-Configuration Server for using TR-069.
<b>Value Range</b>	Max. 256 characters (except ", &, ', :, <, >, and space)
<b>Default Value</b>	Empty string

## ACS\_PASS

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the user password for the Auto-Configuration Server for using TR-069.
<b>Value Range</b>	Max. 256 characters (except ", &, ', :, <, >, and space)
<b>Default Value</b>	Empty string

## PERIODIC\_INFORM\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether or not the CPE (Customer Premises Equipment) must periodically send CPE information to the ACS (Auto-Configuration Server) using the Inform method call.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b> (Enable)</li> <li>• <b>N</b> (Disable)</li> </ul>
<b>Default Value</b>	<b>N</b>

## PERIODIC\_INFORM\_INTERVAL

<b>Value Format</b>	INTEGER
<b>Description</b>	<p>Specifies the interval length, in seconds, when the CPE must attempt to connect with the ACS and call the Inform method.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• This setting is available only when "PERIODIC_INFORM_ENABLE" is set to "Y".</li> </ul>
<b>Value Range</b>	30–2419200
<b>Default Value</b>	86400

## PERIODIC\_INFORM\_TIME

<b>Value Format</b>	STRING
<b>Description</b>	<p>Specifies the time (UTC) to determine when the CPE will initiate the periodic Inform method calls.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>Each Inform call must occur at this reference time plus or minus an integer multiple of the "PERIODIC_INFORM_INTERVAL". This "PERIODIC_INFORM_TIME" parameter is used only to set the "phase" of the periodic Informs. The actual value can be arbitrarily set far into the past or future. For example, if "PERIODIC_INFORM_INTERVAL" is set to 86400 (one day) and if "PERIODIC_INFORM_TIME" is set to midnight on a certain day, then periodic Informs will occur every day at midnight, starting from the set date.</li> <li>If the time is set to "unknown time", the start time depends on the CPE's settings. However, the "PERIODIC_INFORM_INTERVAL" must still be adhered to. If absolute time is not available to the CPE, its periodic Inform behavior must be the same as if the "PERIODIC_INFORM_TIME" parameter was set to the "unknown time".</li> <li>Time zones other than UTC are not supported.</li> </ul>
<b>Value Range</b>	4–32 characters date and time format
<b>Default Value</b>	0001-01-01T00:00:00Z

## CON\_REQ\_USER\_ID

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the user name used to authenticate an ACS making a Connection Request to the CPE.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string

## CON\_REQ\_PASS

<b>Value Format</b>	STRING
<b>Description</b>	<p>Specifies the password used to authenticate an ACS making a Connection Request to the CPE.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>When the "CON_REQ_USER_ID" parameter is specified, an empty string for this parameter is not allowed.</li> </ul>
<b>Value Range</b>	Max. 256 characters

Default Value	Empty string
---------------	--------------

## ANNEX\_G\_STUN\_ENABLE

Value Format	BOOLEAN
Description	Specifies whether or not the CPE can use STUN. This applies only to the use of STUN in association with the ACS to allow UDP Connection Requests.
Value Range	<ul style="list-style-type: none"> <li>Y (Enable)</li> <li>N (Disable)</li> </ul>
Default Value	N

## ANNEX\_G\_STUN\_SERV\_ADDR

Value Format	STRING
Description	<p>Specifies the host name or IP address of the STUN server for the CPE to send Binding Requests.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>This setting is available only when "ANNEX_G_STUN_ENABLE" is set to "Y".</li> <li>If the value for this setting is an empty string and "ANNEX_G_STUN_ENABLE" is set to "Y", the CPE must use the address of the ACS extracted from the host portion of the ACS URL.</li> </ul>
Value Range	Max. 256 characters
Default Value	Empty string

## ANNEX\_G\_STUN\_SERV\_PORT

Value Format	INTEGER
Description	<p>Specifies the port number of the STUN server for the CPE to send Binding Requests.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>This setting is available only when "ANNEX_G_STUN_ENABLE" is set to "Y".</li> </ul>
Value Range	1–65535
Default Value	3478

## ANNEX\_G\_STUN\_USER\_ID

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the STUN user name to be used in Binding Requests (only if message integrity has been requested by the STUN server).  <b>Note</b> <ul style="list-style-type: none"> <li>If the value for this setting is an empty string, the CPE must not send STUN Binding Requests with message integrity.</li> </ul>
<b>Value Range</b>	Max. 256 characters (except ", &, ', :, <, >, and space)
<b>Default Value</b>	Empty string

## ANNEX\_G\_STUN\_PASS

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the STUN password to be used in computing the MESSAGE-INTEGRITY attribute used in Binding Requests (only if message integrity has been requested by the STUN server). When read, this parameter returns an empty string, regardless of the actual value.
<b>Value Range</b>	Max. 256 characters (except ", &, ', :, <, >, and space)
<b>Default Value</b>	Empty string

## ANNEX\_G\_STUN\_MAX\_KEEP\_ALIVE

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the maximum period, in seconds, that STUN Binding Requests must be sent by the CPE for the purpose of maintaining the binding in the Gateway. This applies specifically to Binding Requests sent from the UDP Connection Request address and port.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when "ANNEX_G_STUN_ENABLE" is set to "Y".</li> </ul>
<b>Value Range</b>	1–3600
<b>Default Value</b>	300

## ANNEX\_G\_STUN\_MIN\_KEEP\_ALIVE

<b>Value Format</b>	INTEGER
---------------------	---------



<b>Description</b>	Specifies the minimum period, in seconds, that STUN Binding Requests can be sent by the CPE for the purpose of maintaining the binding in the Gateway. This limit applies only to Binding Requests sent from the UDP Connection Request address and port, and only those that do not contain the BINDING-CHANGE attribute.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when "ANNEX_G_STUN_ENABLE" is set to "Y".</li> </ul>
<b>Value Range</b>	1–3600
<b>Default Value</b>	30

## UDP\_CON\_REQ\_ADDR\_NOTIFY\_LIMIT

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the minimum time, in seconds, between Active Notifications resulting from changes to the "UDPConnectionRequestAddress" (if Active Notification is enabled).
<b>Value Range</b>	0–65535
<b>Default Value</b>	0

## DEVICE\_PROVISIONING\_CODE

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the device provisioning code for use with TR-106 parameters.
<b>Value Range</b>	Max. 64 characters
<b>Default Value</b>	Empty string

## 5.3.10 XML Settings

### XMLAPP\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable the XML application feature.
<b>Value Range</b>	<ul style="list-style-type: none"> <li><b>Y</b>: Enable XML application</li> <li><b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable XMLAPP (Page 99)

## XMLAPP\_USERID

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the authentication ID required to access the XML application server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	User ID (Page 99)

## XMLAPP\_USERPASS

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the authentication password used to access the XML application server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Password (Page 100)

## XMLAPP\_LDAP\_URL

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URL that is accessed when the phonebook is accessed, to check for XML data.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	LDAP URL (Page 102)

## XMLAPP\_LDAP\_USERID

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the authentication ID required to access the LDAP server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	User ID (Page 103)

## XMLAPP\_LDAP\_USERPASS

<b>Value Format</b>	STRING
---------------------	--------

<b>Description</b>	Specifies the authentication password used to access the LDAP server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Password (Page 103)

## XMLAPP\_NPB\_SEARCH\_TIMER

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the time which is for searching XML phonebook.
<b>Value Range</b>	1–65535
<b>Default Value</b>	30

## XMLAPP\_LDAP\_MAXRECORD

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the maximum number of search results to be returned by the LDAP server.
<b>Value Range</b>	20–500
<b>Default Value</b>	20
<b>Web User Interface Reference</b>	Max Hits (Page 103)

## XML\_HTTPD\_PORT

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the local HTTP port for XML application.
<b>Value Range</b>	1–65535
<b>Default Value</b>	6666
<b>Web User Interface Reference</b>	Local XML Port (Page 100)

## XML\_ERROR\_INFORMATION

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to display an error information when an error occurs.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Error information is displayed</li> <li>• <b>N</b>: Error information is not displayed</li> </ul>
<b>Default Value</b>	<b>Y</b>

## XMLAPP\_START\_URL

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URL that is accessed when the unit starts up, to check for XML data.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Bootup URL (Page 100)

## XMLAPP\_INITIAL\_URL

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URL that is accessed when the application is started from the unit's menu, to check for XML data.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Initial URL (Page 100)

## XMLAPP\_INCOMING\_URL

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URL that is accessed when the unit receives a call, to check for XML data.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Incoming Call URL (Page 100)

## XMLAPP\_TALKING\_URL

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URL that is accessed when the unit is on a call, to check for XML data.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Talking URL (Page 101)

## XMLAPP\_MAKECALL\_URL

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URL that is accessed when the unit makes a call, to check for XML data.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Making Call URL (Page 101)

## XMLAPP\_CALLLOG\_URL

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URL that is accessed when the call log is accessed, to check for XML data.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Call Log URL (Page 101)

## XMLAPP\_IDLING\_URL

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URL that is accessed when the unit is idle, to check for XML data.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Idling URL (Page 101)

## XML\_INITIATE\_KEY\_SOFT1

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable the XML application or operate the telephone normally, when the corresponding button is pressed during standby mode.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable XML application</li> <li>• <b>N</b>: Normal operation</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Soft Key A (Left) (Page 102)

## XML\_INITIATE\_KEY\_SOFT2

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable the XML application or operate the telephone normally, when the corresponding button is pressed during standby mode.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Y: Enable XML application</li> <li>N: Normal operation</li> </ul>
<b>Default Value</b>	N
<b>Web User Interface Reference</b>	Soft Key B (Center) (Page 102)

## XML\_INITIATE\_KEY\_SOFT3

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable the XML application or operate the telephone normally, when the corresponding button is pressed during standby mode.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Y: Enable XML application</li> <li>N: Normal operation</li> </ul>
<b>Default Value</b>	N
<b>Web User Interface Reference</b>	Soft Key C (Right) (Page 102)

## XMLAPP\_FFKEY\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable the XML application or operate the telephone normally, when the corresponding button is pressed.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Y: XML Mode</li> <li>N: Normal Telephone Mode</li> </ul>
<b>Default Value</b>	N
<b>Web User Interface Reference</b>	Enable FF Key (Page 101)

## 5.3.11 XSI Settings

### XSI\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable the Xsi service.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Y: Enable Xsi service</li> <li>N: Disable</li> </ul>

<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable Xtended Service (Page 94)

## XSI\_SERVER

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the IP address or FQDN of the Xsi server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Server Address (Page 95)

## XSI\_SERVER\_TYPE

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the type of the Xsi server.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
<b>Default Value</b>	HTTP
<b>Web User Interface Reference</b>	Protocol (Page 95)

## XSI\_SERVER\_PORT

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the port of the Xsi server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	80
<b>Web User Interface Reference</b>	Port (Page 95)

## XSI\_USERID\_n

<b>Parameter Name Example</b>	<b>XSI_USERID_1, XSI_USERID_2, ..., XSI_USERID_6</b>
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the authentication ID required to access the Xsi server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	User ID (Line 1–6) (Page 95)

## XSI\_PASSWORD\_n

<b>Parameter Name Example</b>	XSI_PASSWORD_1, XSI_PASSWORD_2, ..., XSI_PASSWORD_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the authentication password required to access the Xsi server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Password (Line 1–6) (Page 95)

## XSI\_PHONEBOOK\_ENABLE\_n

<b>Parameter Name Example</b>	XSI_PHONEBOOK_ENABLE_1, XSI_PHONEBOOK_ENABLE_2, ..., XSI_PHONEBOOK_ENABLE_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable the Xsi phonebook service.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Y: Enable Xsi phonebook</li> <li>• N: Disable</li> </ul>
<b>Default Value</b>	N
<b>Web User Interface Reference</b>	Enable Phonebook (Line 1–6) (Page 96)

## XSI\_PHONEBOOK\_TYPE\_n

<b>Parameter Name Example</b>	XSI_PHONEBOOK_TYPE_1, XSI_PHONEBOOK_TYPE_2, ..., XSI_PHONEBOOK_TYPE_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the type of Xsi phonebook.
<b>Value Range</b>	1: Group 2: GroupCommon 3: Enterprise 4: EnterpriseCommon 5: Personal
<b>Default Value</b>	1
<b>Web User Interface Reference</b>	Phonebook Type (Line 1–6) (Page 96)

## XSI\_CALLLOG\_ENABLE\_n

<b>Parameter Name Example</b>	XSI_CALLLOG_ENABLE_1, XSI_CALLLOG_ENABLE_2, ..., XSI_CALLLOG_ENABLE_6
<b>Value Format</b>	BOOLEAN



<b>Description</b>	Specifies whether to enable or disable the Xsi call log service.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>y</b>: Enable Xsi call log</li> <li>• <b>n</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable Call Log (Line 1–6) (Page 96)

## 5.3.12 XMPP (UC-ONE) Settings

### UC\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable the UC service.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>y</b>: Enable UC service</li> <li>• <b>n</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable UC (Page 97)

### UC\_USERID

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the authentication ID required to access the UC server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	User ID (Page 98)

### UC\_PASSWORD

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the authentication password required to access the UC server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Password (Page 98)

### XMPP\_SERVER

<b>Value Format</b>	STRING
---------------------	--------

### 5.3.12 XMPP (UC-ONE) Settings

---

<b>Description</b>	Specifies the IP address or FQDN of the XMPP server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Server Address (Page 97)

### XMPP\_PORT

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the local XMPP port.
<b>Value Range</b>	1–65535
<b>Default Value</b>	5222
<b>Web User Interface Reference</b>	Local XMPP Port (Page 97)

### XMPP\_TLS\_VERIFY

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies whether to enable the verification of the root certificate.
<b>Value Range</b>	0: No verification 1: Simple verification 2: Precise verification
<b>Default Value</b>	0

### XMPP\_ROOT\_CERT\_PATH

---

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URI where the root certificate is stored.
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string

### XMPP\_CLIENT\_CERT\_PATH

---

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URI where the client certificate is stored.
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string

## XMPP\_PKEY\_PATH

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URI where the private key is stored.
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string

## 5.3.13 LDAP Settings

### LDAP\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable the LDAP service.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable LDAP service</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable LDAP (Page 91)

### LDAP\_DNSSRV\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to request the DNS server to translate domain names into IP addresses using the SRV record.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable DNS SRV lookup</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable DNS SRV lookup (Page 93)

### LDAP\_SERVER

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the server host of LDAP.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Server Address (Page 91)

## LDAP\_SERVER\_PORT

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the port of the LDAP server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	389
<b>Web User Interface Reference</b>	Port (Page 92)

## LDAP\_MAXRECORD

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the maximum number of search results to be returned by the LDAP server.
<b>Value Range</b>	20–500
<b>Default Value</b>	20
<b>Web User Interface Reference</b>	Max Hits (Page 92)

## LDAP\_NUMB\_SEARCH\_TIMER

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the timer for searching telephone number.
<b>Value Range</b>	1–65535
<b>Default Value</b>	30

## LDAP\_NAME\_SEARCH\_TIMER

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the timer for searching name.
<b>Value Range</b>	1–65535
<b>Default Value</b>	5

## LDAP\_USERID

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the authentication ID required to access the LDAP server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Empty string

<b>Web User Interface Reference</b>	User ID (Page 92)
-------------------------------------	-------------------

## LDAP\_PASSWORD

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the authentication password required to access the LDAP server.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Password (Page 92)

## LDAP\_NAME\_FILTER

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the name filter which is the search criteria for name look up.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	((cn=%)(sn=%))
<b>Web User Interface Reference</b>	Name Filter (Page 92)

## LDAP\_NUMB\_FILTER

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the number filter which is the search criteria for number look up.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	((telephoneNumber=%)(mobile=%)(homePhone=%))
<b>Web User Interface Reference</b>	Number Filter (Page 93)

## LDAP\_NAME\_ATTRIBUTE

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the name attributes of each record which are to be returned in the LDAP search result.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	cn,sn
<b>Web User Interface Reference</b>	Name Attributes (Page 93)

## LDAP\_NUMB\_ATTRIBUTE

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the number attributes of each record which are to be returned in the LDAP search result.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	telephoneNumber,mobile,homePhone
<b>Web User Interface Reference</b>	Number Attributes (Page 93)

## LDAP\_BASEDN

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the entry information on the screen.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Display Name (Page 93)

## LDAP\_SSL\_VERIFY

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies whether to enable the verification of the root certificate.
<b>Value Range</b>	0: No verification 1: Simple verification 2: Precise verification
<b>Default Value</b>	0

## LDAP\_ROOT\_CERT\_PATH

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URI where the root certificate is stored.
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string

## LDAP\_CLIENT\_CERT\_PATH

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URI where the client certificate is stored.
<b>Value Range</b>	Max. 384 characters

Default Value	Empty string
---------------	--------------

## LDAP\_PKEY\_PATH

Value Format	STRING
Description	Specifies the URI where the private key is stored.
Value Range	Max. 384 characters
Default Value	Empty string

## 5.3.14 Call Center Settings

### CALL\_CENTER\_ENABLE\_n

Parameter Name Example	CALL_CENTER_ENABLE_1, CALL_CENTER_ENABLE_2, ..., CALL_CENTER_ENABLE_6
Value Format	BOOLEAN
Description	Specifies whether to add menu items for Call Center.
Value Range	<ul style="list-style-type: none"> <li>Y: Enable</li> <li>N: Disable</li> </ul>
Default Value	N
Web User Interface Reference	Enable Call Center (Page 105)

### ACD\_ENABLE\_n

Parameter Name Example	ACD_ENABLE_1, ACD_ENABLE_2, ..., ACD_ENABLE_6
Value Format	BOOLEAN
Description	Specifies whether to enable the ACD.
Value Range	<ul style="list-style-type: none"> <li>Y: Enable</li> <li>N: Disable</li> </ul>
Default Value	N
Web User Interface Reference	Enable ACD (Page 104)

### ACD\_LOGIN\_CONDITION\_n

Parameter Name Example	ACD_LOGIN_CONDITION_1, ACD_LOGIN_CONDITION_2, ..., ACD_LOGIN_CONDITION_6
Value Format	INTEGER
Description	Specifies the ACD state when login to the ACD.

### 5.3.14 Call Center Settings

---

<b>Value Range</b>	<ul style="list-style-type: none"><li>• 0: Available</li><li>• 1: Unavailable</li></ul>
<b>Default Value</b>	0

### ACD\_LOGOUT\_CONDITION\_n

---

<b>Parameter Name Example</b>	ACD_LOGOUT_CONDITION_1, ACD_LOGOUT_CONDITION_2, ..., ACD_LOGOUT_CONDITION_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the ACD state when logout to the ACD.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• 0: Continue</li><li>• 1: Unavailable</li></ul>
<b>Default Value</b>	1

### CC\_DISPOSITION\_CODE\_ENABLE\_n

---

<b>Parameter Name Example</b>	CC_DISPOSITION_CODE_ENABLE_1, CC_DISPOSITION_CODE_ENABLE_2, ..., CC_DISPOSITION_CODE_ENABLE_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable the Disposition Code.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• Y: Enable</li><li>• N: Disable</li></ul>
<b>Default Value</b>	N
<b>Web User Interface Reference</b>	Disposition Code (Page 105)

### CC\_CUSTOMER\_ORG\_TRACE\_ENABLE\_n

---

<b>Parameter Name Example</b>	CC_CUSTOMER_ORG_TRACE_ENABLE_1, CC_CUSTOMER_ORG_TRACE_ENABLE_2, ..., CC_CUSTOMER_ORG_TRACE_ENABLE_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable the Customer Originated Trace.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• Y: Enable</li><li>• N: Disable</li></ul>
<b>Default Value</b>	N
<b>Web User Interface Reference</b>	Customer Originated Trace (Page 105)



## CC\_HOTELING\_EVENT\_n

<b>Parameter Name Example</b>	CC_HOTELING_EVENT_1, CC_HOTELING_EVENT_2, ..., CC_HOTELING_EVENT_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable the Hoteling Event.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Y: Enable</li> <li>N: Disable</li> </ul>
<b>Default Value</b>	N
<b>Web User Interface Reference</b>	Hoteling Event (Page 106)

## HOTELING\_USERID\_n

<b>Parameter Name Example</b>	HOTELING_USERID_1, HOTELING_USERID_2, ..., HOTELING_USERID_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the authentication ID required to access the Hoteling service.
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	- User ID (Page 106)

## HOTELING\_PASSWORD\_n

<b>Parameter Name Example</b>	HOTELING_PASSWORD_1, HOTELING_PASSWORD_2, ..., HOTELING_PASSWORD_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the authentication password required to access the Hoteling service.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	- Password (Page 106)

## CC\_STATUS\_EVENT\_ENABLE\_n

<b>Parameter Name Example</b>	CC_STATUS_EVENT_ENABLE_1, CC_STATUS_EVENT_ENABLE_2, ..., CC_STATUS_EVENT_ENABLE_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable the Status Event.

### 5.3.15 SNMP Settings

---

<b>Value Range</b>	<ul style="list-style-type: none"><li>• <b>Y</b>: Enable</li><li>• <b>N</b>: Disable</li></ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Status Event (Page 106)

## 5.3.15 SNMP Settings

### Note

- Changing SNMP setting may require restarting the unit.

### SNMP\_ENABLE

---

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable SNMP feature.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• <b>Y</b>: Enable SNMP</li><li>• <b>N</b>: Disable</li></ul>
<b>Default Value</b>	<b>N</b>

### SNMP\_TRUST\_IP

---

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the IP address or FQDN of the trusted SNMP server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string

### SNMP\_TRUST\_PORT

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the port of the trusted SNMP server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	161

### SNMP\_RO\_COMMUNITY\_STRING

---

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the community name for read-only.
<b>Value Range</b>	Max. 32 characters

<b>Default Value</b>	Empty string
----------------------	--------------

## SNMP\_SECURITY\_TYPE

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the security type of SNMPv3.
<b>Value Range</b>	0: noAuthNoPriv 1: AuthNoPriv 2: AuthPriv
<b>Default Value</b>	0

## SNMP\_SECURITY\_USER

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the security user ID for authentication and encryption of SNMPv3.
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	Empty string

## SNMP\_AUTH\_TYPE

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the authentication type of SNMPv3.
<b>Value Range</b>	0: MD5 1: SHA
<b>Default Value</b>	0

## SNMP\_AUTH\_PASSWORD

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the authentication password of SNMPv3.
<b>Value Range</b>	0, 8–64 characters
<b>Default Value</b>	Empty string

## SNMP\_ENCRYPT\_TYPE

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the encryption type of SNMPv3.

### 5.3.16 Multicast Paging Settings

---

<b>Value Range</b>	0: DES 1: AES
<b>Default Value</b>	0

## SNMP\_ENCRYPT\_PASSWORD

---

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the encryption password of SNMPv3.
<b>Value Range</b>	0, 8–64 characters
<b>Default Value</b>	Empty string

### 5.3.16 Multicast Paging Settings

## MPAGE\_ADDRm

---

<b>Parameter Name Example</b>	MPAGE_ADDR1, MPAGE_ADDR2, ..., MPAGE_ADDR5
<b>Value Format</b>	IPADDR
<b>Description</b>	Specifies the address for multi-cast paging for each channel group. (m=1–5, the channel group) {Priority: 5 > 4 > 3, 2, 1 (depending on the configuration)}
<b>Value Range</b>	224.0.0.0–239.255.255.255
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	IPv4 Address (Group 1–5) (Page 89)

## MPAGE\_IPV6\_ADDRm

---

<b>Parameter Name Example</b>	MPAGE_IPV6_ADDR1, MPAGE_IPV6_ADDR2, ..., MPAGE_IPV6_ADDR5
<b>Value Format</b>	IPADDR-V6
<b>Description</b>	Specifies the IPv6 address for multi-cast paging for each channel group. (m=1–5, the channel group) {Priority: 5 > 4 > 3, 2, 1 (depending on the configuration)}
<b>Value Range</b>	FF00::/8
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	IPv6 Address (Group 1–5) (Page 90)

## MPAGE\_PORTm

---

<b>Parameter Name Example</b>	MPAGE_PORT1, MPAGE_PORT2, ..., MPAGE_PORT5
-------------------------------	--

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the port number for multi-cast paging for each channel group. (m=1–5, the channel group)
<b>Value Range</b>	0–65535 (0: not used)
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	Port (Group 1–5) (Page 90)

## MPAGE\_PRIORITY<sub>m</sub>

<b>Parameter Name Example</b>	MPAGE_PRIORITY1, MPAGE_PRIORITY2, MPAGE_PRIORITY3
<b>Value Format</b>	INTEGER
<b>Description</b>	Select the priority of the low priority channel group. (m=1–3) The priority of multi-cast paging group 1-3 is lower than the talking. Priority 4 is higher than priority 5.
<b>Value Range</b>	4,5 (Talk > 4 > 5)
<b>Default Value</b>	5
<b>Web User Interface Reference</b>	Priority (Group 1–3) (Page 90)

## MPAGE\_LABEL<sub>m</sub>

<b>Parameter Name Example</b>	MPAGE_LABEL1, MPAGE_LABEL2, ..., MPAGE_LABEL5
<b>Value Format</b>	STRING
<b>Description</b>	Specifies a label for each channel group. (m=1–5, the channel group)
<b>Value Range</b>	Max. 24 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Label (Group 1–5) (Page 90)

## MPAGE\_SEND\_ENABLE<sub>m</sub>

<b>Parameter Name Example</b>	MPAGE_SEND_ENABLE1, MPAGE_SEND_ENABLE2, ..., MPAGE_SEND_ENABLE5
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies the sending multi-cast paging. (m=1–5, the channel group)
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>

### 5.3.16 Multicast Paging Settings

---

<b>Web User Interface Reference</b>	Enable Transmission (Group 1–5) (Page 90)
-------------------------------------	---

## MPAGE\_CODEC

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the codec for multi-cast paging.
<b>Value Range</b>	0 : "G722" 1 : "PCMA" 2 : – 3 : "G729A" 4 : "PCMU"
<b>Default Value</b>	0

## MPAGE\_SP\_VOL\_EMERGENCY

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the speaker level for new received multi-cast paging (emergency channel).
<b>Value Range</b>	0–8 0: No control
<b>Default Value</b>	0

## MPAGE\_SP\_VOL\_PRIORITY

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the speaker level for new received multi-cast paging (priority channel).
<b>Value Range</b>	0–8 0: No control
<b>Default Value</b>	0

## MPAGE\_DND\_ENABLE

---

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies the DND setting (on/off) for multi-cast paging.
<b>Value Range</b>	<ul style="list-style-type: none"><li>Y: Enable DND for Multi-cast paging</li><li>N: Disable DND for Multi-cast paging</li></ul>
<b>Default Value</b>	N

## MPAGE\_FUNCKEY\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable the multicast paging key in function menu.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>

## 5.3.17 NTP Settings

### NTP\_ADDR

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the IP address or FQDN of NTP server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Server Address (Page 113)

### TIME\_SYNC\_INTVL

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the interval, in seconds, to resynchronize after having detected no reply from the NTP server.
<b>Value Range</b>	10–86400
<b>Default Value</b>	60

### TIME\_QUERY\_INTVL

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the interval, in seconds, between synchronizations with the NTP server.
<b>Value Range</b>	10–86400
<b>Default Value</b>	43200
<b>Web User Interface Reference</b>	Synchronization Interval (Synchronisation Interval) (Page 113)

## 5.3.18 Time Settings

### LOCAL\_TIME\_ZONE\_POSIX

<b>Value Format</b>	STRING
<b>Description</b>	<p>Specifies a IEEE 1003.1 (POSIX)-compliant local time zone definition (e.g., "EST+5 EDT,M4.1.0/2,M10.5.0/2").</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>If this parameter is specified, the following parameters are disabled, and operation will be based on this parameter. <ul style="list-style-type: none"> <li>– TIME_ZONE</li> <li>– DST_ENABLE</li> <li>– DST_OFFSET</li> <li>– DST_START_MONTH</li> <li>– DST_START_ORDINAL_DAY</li> <li>– DST_START_DAY_OF_WEEK</li> <li>– DST_START_TIME</li> <li>– DST_STOP_MONTH</li> <li>– DST_STOP_ORDINAL_DAY</li> <li>– DST_STOP_DAY_OF_WEEK</li> <li>– DST_STOP_TIME</li> </ul> </li> </ul>
<b>Value Range</b>	Max. 70 characters
<b>Default Value</b>	Empty string

### TIME\_ZONE

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the offset of local standard time from UTC (GMT), in minutes.



<b>Value Range</b>	-720–780  <b>Note</b> <ul style="list-style-type: none"> <li>Only the following values are available: -720 (GMT -12:00), -660 (GMT -11:00), -600 (GMT -10:00), -540 (GMT -09:00), -480 (GMT -08:00), -420 (GMT -07:00), -360 (GMT -06:00), -300 (GMT -05:00), -240 (GMT -04:00), -210 (GMT -03:30), -180 (GMT -03:00), -120 (GMT -02:00), -60 (GMT -01:00), 0 (GMT), 60 (GMT +01:00), 120 (GMT +02:00), 180 (GMT +03:00), 210 (GMT +03:30), 240 (GMT +04:00), 270 (GMT +04:30), 300 (GMT +05:00), 330 (GMT +05:30), 345 (GMT +05:45), 360 (GMT +06:00), 390 (GMT +06:30), 420 (GMT +07:00), 480 (GMT +08:00), 540 (GMT +09:00), 570 (GMT +09:30), 600 (GMT +10:00), 660 (GMT +11:00), 720 (GMT +12:00), 780 (GMT +13:00)</li> <li>If your location is west of Greenwich (0 [GMT]), the value should be minus. For example, the value for New York City, U.S.A. is "-300" (Eastern Standard Time being 5 hours behind GMT).</li> <li>This parameter is disabled when the "LOCAL_TIME_ZONE_POSIX" parameter is specified.</li> </ul>
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	Time Zone (Page 113)

## DST\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable DST (Summer Time).  <b>Note</b> <ul style="list-style-type: none"> <li>This parameter is disabled when the "LOCAL_TIME_ZONE_POSIX" parameter is specified.</li> </ul>
<b>Value Range</b>	<ul style="list-style-type: none"> <li><b>Y</b> (Enable DST [Summer Time])</li> <li><b>N</b> (Disable DST [Summer Time])</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable DST (Enable Summer Time) (Page 114)

## DST\_OFFSET

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the amount of time, in minutes, to change the time when "DST_ENABLE" is set to "Y".  <b>Note</b> <ul style="list-style-type: none"> <li>This parameter is disabled when the "LOCAL_TIME_ZONE_POSIX" parameter is specified.</li> </ul>

### 5.3.18 Time Settings

---

<b>Value Range</b>	0–720 <b>Note</b> <ul style="list-style-type: none"><li>This parameter is usually set to "60".</li></ul>
<b>Default Value</b>	60
<b>Web User Interface Reference</b>	DST Offset (Summer Time Offset) (Page 114)

## DST\_START\_MONTH

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the month in which DST (Summer Time) starts. <b>Note</b> <ul style="list-style-type: none"><li>This parameter is disabled when the "LOCAL_TIME_ZONE_POSIX" parameter is specified.</li></ul>
<b>Value Range</b>	1–12
<b>Default Value</b>	3
<b>Web User Interface Reference</b>	Month (Page 114)

## DST\_START\_ORDINAL\_DAY

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the number of the week on which DST (Summer Time) starts. The actual start day is specified in "DST_START_DAY_OF_WEEK". For example, to specify the second Sunday, specify "2" in this parameter, and "0" in the next parameter. <b>Note</b> <ul style="list-style-type: none"><li>This parameter is disabled when the "LOCAL_TIME_ZONE_POSIX" parameter is specified.</li></ul>
<b>Value Range</b>	1–5 <ul style="list-style-type: none"><li>– 1: the first week of the month</li><li>– 2: the second week of the month</li><li>– 3: the third week of the month</li><li>– 4: the fourth week of the month</li><li>– 5: the last week of the month</li></ul>
<b>Default Value</b>	2
<b>Web User Interface Reference</b>	Day of Week (Page 115)

## DST\_START\_DAY\_OF\_WEEK

---

<b>Value Format</b>	INTEGER
---------------------	---------

<b>Description</b>	Specifies the day of the week on which DST (Summer Time) starts.  <b>Note</b> <ul style="list-style-type: none"> <li>This parameter is disabled when the "LOCAL_TIME_ZONE_POSIX" parameter is specified.</li> </ul>
<b>Value Range</b>	0–6 <ul style="list-style-type: none"> <li>– 0: Sunday</li> <li>– 1: Monday</li> <li>– 2: Tuesday</li> <li>– 3: Wednesday</li> <li>– 4: Thursday</li> <li>– 5: Friday</li> <li>– 6: Saturday</li> </ul>
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	Day of Week (Page 115)

## DST\_START\_TIME

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the start time of DST (Summer Time) in minutes after 12:00 AM.  <b>Note</b> <ul style="list-style-type: none"> <li>This parameter is disabled when the "LOCAL_TIME_ZONE_POSIX" parameter is specified.</li> </ul>
<b>Value Range</b>	0–1439
<b>Default Value</b>	120
<b>Web User Interface Reference</b>	Time (Page 115)

## DST\_STOP\_MONTH

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the month in which DST (Summer Time) ends.  <b>Note</b> <ul style="list-style-type: none"> <li>This parameter is disabled when the "LOCAL_TIME_ZONE_POSIX" parameter is specified.</li> </ul>
<b>Value Range</b>	1–12
<b>Default Value</b>	10
<b>Web User Interface Reference</b>	Month (Page 115)

## DST\_STOP\_ORDINAL\_DAY

<b>Value Format</b>	INTEGER
<b>Description</b>	<p>Specifies the number of the week on which DST (Summer Time) ends. The actual end day is specified in "DST_STOP_DAY_OF_WEEK". For example, to specify the second Sunday, specify "2" in this parameter, and "0" in the next parameter.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>This parameter is disabled when the "LOCAL_TIME_ZONE_POSIX" parameter is specified.</li> </ul>
<b>Value Range</b>	<p>1–5</p> <ul style="list-style-type: none"> <li>– 1: the first week of the month</li> <li>– 2: the second week of the month</li> <li>– 3: the third week of the month</li> <li>– 4: the fourth week of the month</li> <li>– 5: the last week of the month</li> </ul>
<b>Default Value</b>	2
<b>Web User Interface Reference</b>	Day of Week (Page 116)

## DST\_STOP\_DAY\_OF\_WEEK

<b>Value Format</b>	INTEGER
<b>Description</b>	<p>Specifies the day of the week on which DST (Summer Time) ends.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>This parameter is disabled when the "LOCAL_TIME_ZONE_POSIX" parameter is specified.</li> </ul>
<b>Value Range</b>	<p>0–6</p> <ul style="list-style-type: none"> <li>– 0: Sunday</li> <li>– 1: Monday</li> <li>– 2: Tuesday</li> <li>– 3: Wednesday</li> <li>– 4: Thursday</li> <li>– 5: Friday</li> <li>– 6: Saturday</li> </ul>
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	Day of Week (Page 116)

## DST\_STOP\_TIME

<b>Value Format</b>	INTEGER
---------------------	---------

<b>Description</b>	Specifies the end time of DST (Summer Time) in minutes after 12:00 AM.  <b>Note</b> <ul style="list-style-type: none"> <li>This parameter is disabled when the "LOCAL_TIME_ZONE_POSIX" parameter is specified.</li> </ul>
<b>Value Range</b>	0–1439
<b>Default Value</b>	120
<b>Web User Interface Reference</b>	Time (Page 117)

## 5.3.19 Network Phonebook (Common)

### ONLY\_NPB\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to be available the unit phonebook when the network phonebook is enabled.
<b>Value Range</b>	<ul style="list-style-type: none"> <li><b>Y</b>: Not use unit phonebook</li> <li><b>N</b>: Use unit phonebook</li> </ul>
<b>Default Value</b>	<b>N</b>

### NETWORK\_SEARCH\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to perform the phonebook search at the time of the receiving the incoming or the searching the received log.
<b>Value Range</b>	<ul style="list-style-type: none"> <li><b>Y</b>: Enable phonebook search</li> <li><b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>

## 5.3.20 Language Settings

### AVAILABLE\_LANGUAGE

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the selectable language on the unit.
<b>Value Range</b>	en, es, fr, de, it, da, nl, sv, fi, el, hu, pt, pl, sk, cs, sh, ru, uk, tr, no, ro, ct, kk, me → see <b>4.4.1.1 Selectable Language</b>
<b>Web User Interface Reference</b>	IP Phone (Page 107)

## DEFAULT\_LANGUAGE

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the default language on the unit.
<b>Value Range</b>	en, es, fr, de, it, da, nl, sv, fi, el, hu, pt, pl, sk, cs, sh, ru, uk, tr, no, ro, ct, kk, me → see <b>4.4.1.1 Selectable Language</b>
<b>Default Value</b>	en
<b>Web User Interface Reference</b>	IP Phone (Page 109)

## LANGUAGE\_PATHx

<b>Parameter Name Example</b>	<b>LANGUAGE_PATH1, LANGUAGE_PATH2, ..., LANGUAGE_PATH10</b>
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URI of the language file. x=1–10
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string

## LANGUAGE\_VERx

<b>Parameter Name Example</b>	<b>LANGUAGE_VER1, LANGUAGE_VER2, ..., LANGUAGE_VER10</b>
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the version of the language file. x=1–10
<b>Value Range</b>	"00.000.000"–"15.999.999"
<b>Default Value</b>	Empty string

## AVAILABLE\_LANGUAGE\_WEB

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the selectable language on the Web.
<b>Value Range</b>	en, es, fr, de, it, nl, el, hu, pt, pl, sk, cs, sh, ru, uk, tr, ro, ct, kk, me → see <b>4.4.1.1 Selectable Language</b>
<b>Web User Interface Reference</b>	Web Language (Page 108)

## WEB\_LANGUAGE

<b>Value Format</b>	STRING
---------------------	--------

<b>Description</b>	Specifies the default language on the unit.
<b>Value Range</b>	en, es, fr, de, it, nl, el, hu, pt, pl, sk, cs, sh, ru, uk, tr, ro, ct, kk, me → see 4.4.1.1 <b>Selectable Language</b>
<b>Default Value</b>	en
<b>Web User Interface Reference</b>	Web Language (Page 109)

## WEB\_LANGUAGE\_PATHx

<b>Parameter Name Example</b>	WEB_LANGUAGE_PATH1, WEB_LANGUAGE_PATH2, ..., WEB_LANGUAGE_PATH10
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URI of the language file. x=1–10
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string

## WEB\_LANGUAGE\_VERx

<b>Parameter Name Example</b>	WEB_LANGUAGE_VER1, WEB_LANGUAGE_VER2, ..., WEB_LANGUAGE_VER10
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the version of the language file. x=1–10
<b>Value Range</b>	"00.000.000"–"15.999.999"
<b>Default Value</b>	Empty string

## 5.3.21 NAT Settings

### STUN\_SERV\_ADDR

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the IP address or FQDN of the primary STUN server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Server Address (Page 88)

### STUN\_SERV\_PORT

<b>Value Format</b>	INTEGER
---------------------	---------

### 5.3.21 NAT Settings

---

<b>Description</b>	Specifies the port of the primary STUN server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	3478
<b>Web User Interface Reference</b>	Port (Page 88)

### STUN\_2NDSERV\_ADDR

---

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the IP address or FQDN of the secondary STUN server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string

### STUN\_2NDSERV\_PORT

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the port number of the secondary STUN server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	3478

### STUN\_INTVL

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the interval of the sending binding request.
<b>Value Range</b>	60–86400
<b>Default Value</b>	300
<b>Web User Interface Reference</b>	Binding Interval (Page 89)

### SIP\_ADD\_RPORT

---

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to add the 'rport' parameter to the top Via header field value of requests generated.
<b>Value Range</b>	<ul style="list-style-type: none"><li>Y: Enable Rport</li><li>N: Disable</li></ul>
<b>Default Value</b>	N
<b>Web User Interface Reference</b>	Enable Rport (RFC 3581) (Page 120)



## PORT\_PUNCH\_INTVL

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the interval, in seconds, between transmissions of the Keep Alive packet in order to maintain the NAT binding information for SIP packet.
<b>Value Range</b>	0, 10–300 0: Disable
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	Enable Port Punching for SIP (Page 120)

## RTP\_PORT\_PUNCH\_INTVL

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the interval, in seconds, between transmissions of the Keep Alive packet in order to maintain the NAT binding information for RTP packet.
<b>Value Range</b>	0, 10–300 0: Disable
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	Enable Port Punching for RTP (Page 120)

## 5.3.22 SIP Settings

### SIP\_USER\_AGENT

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the text string to send as the user agent in the headers of SIP messages.
<b>Value Range</b>	Max. 64 characters  <b>Note</b> <ul style="list-style-type: none"> <li>If "{mac}" is included in this parameter, it will be replaced with the unit's MAC address in lower-case.</li> <li>If "{MAC}" is included in this parameter, it will be replaced with the unit's MAC address in upper-case.</li> <li>If "{MODEL}" is included in this parameter, it will be replaced with the unit's model name.</li> <li>If "{fwver}" is included in this parameter, it will be replaced with the firmware version of the unit.</li> </ul>
<b>Default Value</b>	Panasonic-{MODEL}/{fwver} ({mac})
<b>Web User Interface Reference</b>	User Agent (Page 119)

## PHONE\_NUMBER\_n

<b>Parameter Name Example</b>	PHONE_NUMBER_1, PHONE_NUMBER_2, ..., PHONE_NUMBER_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the phone number to use as the user ID required for registration to the SIP registrar server.  <b>Note</b> <ul style="list-style-type: none"> <li>When registering using a user ID that is not a phone number, you should use the "SIP_URI_n" setting.</li> </ul>
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Phone Number (Page 121)

## SIP\_URI\_n

<b>Parameter Name Example</b>	SIP_URI_1, SIP_URI_2, ..., SIP_URI_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the unique ID used by the SIP registrar server, which consists of "sip:", a user part, the "@" symbol, and a host part, for example, "sip:user@example.com", "2405551111_1".  <b>Note</b> <ul style="list-style-type: none"> <li>When registering using a user ID that is not a phone number, you should use this setting.</li> <li>In a SIP URI, the user part ("user" in the example above) can contain up to 63 characters, and the host part ("example.com" in the example above) can contain up to 127 characters.</li> </ul>
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	SIP URI (Page 126)

## SIP\_RGSTR\_ADDR\_n

<b>Parameter Name Example</b>	SIP_RGSTR_ADDR_1, SIP_RGSTR_ADDR_2, ..., SIP_RGSTR_ADDR_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the IP address or FQDN of the SIP registrar server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Registrar Server Address (Page 121)

## SIP\_RGSTR\_PORT\_n

<b>Parameter Name Example</b>	SIP_RGSTR_PORT_1, SIP_RGSTR_PORT_2, ..., SIP_RGSTR_PORT_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the port number to use for communication with the SIP registrar server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	5060
<b>Web User Interface Reference</b>	Registrar Server Port (Page 122)

## SIP\_PRXY\_ADDR\_n

<b>Parameter Name Example</b>	SIP_PRXY_ADDR_1, SIP_PRXY_ADDR_2, ..., SIP_PRXY_ADDR_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the IP address or FQDN of the SIP proxy server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Proxy Server Address (Page 122)

## SIP\_PRXY\_PORT\_n

<b>Parameter Name Example</b>	SIP_PRXY_PORT_1, SIP_PRXY_PORT_2, ..., SIP_PRXY_PORT_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the port number to use for communication with the SIP proxy server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	5060
<b>Web User Interface Reference</b>	Proxy Server Port (Page 122)

## SIP\_PRSNC\_ADDR\_n

<b>Parameter Name Example</b>	SIP_PRSNC_ADDR_1, SIP_PRSNC_ADDR_2, ..., SIP_PRSNC_ADDR_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the IP address or FQDN of the SIP presence server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string

<b>Web User Interface Reference</b>	Presence Server Address (Page 122)
-------------------------------------	------------------------------------

## SIP\_PR SNC\_PORT\_n

<b>Parameter Name Example</b>	SIP_PR SNC_PORT_1, SIP_PR SNC_PORT_2, ..., SIP_PR SNC_PORT_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the port number to use for communication with the SIP presence server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	5060
<b>Web User Interface Reference</b>	Presence Server Port (Page 122)

## SIP\_OUTPROXY\_ADDR\_n

<b>Parameter Name Example</b>	SIP_OUTPROXY_ADDR_1, SIP_OUTPROXY_ADDR_2, ..., SIP_OUTPROXY_ADDR_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the IP address or FQDN of the SIP outbound proxy server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Outbound Proxy Server Address (Page 123)

## SIP\_OUTPROXY\_PORT\_n

<b>Parameter Name Example</b>	SIP_OUTPROXY_PORT_1, SIP_OUTPROXY_PORT_2, ..., SIP_OUTPROXY_PORT_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the port number to use for communication with the SIP outbound proxy server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	5060
<b>Web User Interface Reference</b>	Outbound Proxy Server Port (Page 123)

## SIP\_SVCDOMAIN\_n

<b>Parameter Name Example</b>	SIP_SVCDOMAIN_1, SIP_SVCDOMAIN_2, ..., SIP_SVCDOMAIN_6
<b>Value Format</b>	STRING

<b>Description</b>	Specifies the domain name provided by your phone system dealer/ service provider. The domain name is the part of the SIP URI that comes after the "@" symbol.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Service Domain (Page 123)

## SIP\_AUTHID\_n

<b>Parameter Name Example</b>	SIP_AUTHID_1, SIP_AUTHID_2, ..., SIP_AUTHID_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the authentication ID required to access the SIP server.
<b>Value Range</b>	Max. 128 characters (except ", &, ', :, <, >, and space)
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Authentication ID (Page 123)

## SIP\_PASS\_n

<b>Parameter Name Example</b>	SIP_PASS_1, SIP_PASS_2, ..., SIP_PASS_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the authentication password used to access the SIP server.
<b>Value Range</b>	Max. 128 characters (except ", &, ', :, <, >, and space)
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Authentication Password (Page 123)

## SIP\_SRC\_PORT\_n

<b>Parameter Name Example</b>	SIP_SRC_PORT_1, SIP_SRC_PORT_2, ..., SIP_SRC_PORT_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the source port number used by the unit for SIP communication.
<b>Value Range</b>	1024–49151  <b>Note</b> <ul style="list-style-type: none"> <li>The SIP port number for each line must be unique.</li> </ul>

### 5.3.22 SIP Settings

<b>Default Value</b>	<code>SIP_SRC_PORT_1="5060"</code> <code>SIP_SRC_PORT_2="5070"</code> <code>SIP_SRC_PORT_3="5080"</code> <code>SIP_SRC_PORT_4="5090"</code> <code>SIP_SRC_PORT_5="5100"</code> <code>SIP_SRC_PORT_6="5110"</code>
<b>Web User Interface Reference</b>	Local SIP Port (Page 125)

### DSCP\_SIP\_n

<b>Parameter Name Example</b>	<code>DSCP_SIP_1</code> , <code>DSCP_SIP_2</code> , ..., <code>DSCP_SIP_6</code>
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the DSCP level of DiffServ applied to SIP packets.
<b>Value Range</b>	0–63
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	SIP Packet QoS (DSCP) (Page 124)

### SIP\_DNSSRV\_ENA\_n

<b>Parameter Name Example</b>	<code>SIP_DNSSRV_ENA_1</code> , <code>SIP_DNSSRV_ENA_2</code> , ..., <code>SIP_DNSSRV_ENA_6</code>
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to request the DNS server to translate domain names into IP addresses using the SRV record.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• <code>Y</code> (Enable DNS SRV lookup)</li><li>• <code>N</code> (Disable DNS SRV lookup)</li></ul> <p><b>Note</b></p> <ul style="list-style-type: none"><li>• If set to "Y", the unit will perform a DNS SRV lookup for a SIP registrar server, SIP proxy server, SIP outbound proxy server, or SIP presence server.</li><li>• If set to "N", the unit will not perform a DNS SRV lookup for a SIP registrar server, SIP proxy server, SIP outbound proxy server, or SIP presence server.</li></ul>
<b>Default Value</b>	<code>Y</code>
<b>Web User Interface Reference</b>	Enable DNS SRV lookup (Page 124)

### SIP\_UDP\_SRV\_PREFIX\_n

<b>Parameter Name Example</b>	<code>SIP_UDP_SRV_PREFIX_1</code> , <code>SIP_UDP_SRV_PREFIX_2</code> , ..., <code>SIP_UDP_SRV_PREFIX_6</code>
-------------------------------	--

<b>Value Format</b>	STRING
<b>Description</b>	Specifies a prefix to add to the domain name when performing a DNS SRV lookup using UDP.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when "SIP_DNSSRV_ENA_n" is set to "Y".</li> </ul>
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	_sip._udp.
<b>Web User Interface Reference</b>	SRV lookup Prefix for UDP (Page 124)

## SIP\_TCP\_SRV\_PREFIX\_n

<b>Parameter Name Example</b>	SIP_TCP_SRV_PREFIX_1, SIP_TCP_SRV_PREFIX_2, ..., SIP_TCP_SRV_PREFIX_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies a prefix to add to the domain name when performing a DNS SRV lookup using TCP.  <b>Note</b> <ul style="list-style-type: none"> <li>This setting is available only when "SIP_DNSSRV_ENA_n" is set to "Y".</li> </ul>
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	_sip._tcp.
<b>Web User Interface Reference</b>	SRV lookup Prefix for TCP (Page 125)

## REG\_EXPIRE\_TIME\_n

<b>Parameter Name Example</b>	REG_EXPIRE_TIME_1, REG_EXPIRE_TIME_2, ..., REG_EXPIRE_TIME_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the length of time, in seconds, that the registration remains valid. This value is set in the "Expires" header of the REGISTER request.
<b>Value Range</b>	1–4294967295
<b>Default Value</b>	3600
<b>Web User Interface Reference</b>	REGISTER Expires Timer (Page 127)

## REG\_INTERVAL\_RATE\_n

<b>Parameter Name Example</b>	REG_INTERVAL_RATE_1, REG_INTERVAL_RATE_2, ..., REG_INTERVAL_RATE_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the percentage of the "expires" value after which to refresh registration by sending a new REGISTER message in the same dialog.
<b>Value Range</b>	1–100
<b>Default Value</b>	50

## REG\_RTX\_INTVL\_n

<b>Parameter Name Example</b>	REG_RTX_INTVL_1, REG_RTX_INTVL_2, ..., REG_RTX_INTVL_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the interval, in seconds, between transmissions of the REGISTER request when a registration results in failure (server no reply or error reply).
<b>Value Range</b>	1–86400
<b>Default Value</b>	10

## USE\_DEL\_REG\_OPEN\_n

<b>Parameter Name Example</b>	USE_DEL_REG_OPEN_1, USE_DEL_REG_OPEN_2, ..., USE_DEL_REG_OPEN_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable cancelation before registration when, for example, the unit is turned on.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Send un-REGISTER</li> <li>• <b>N</b>: Does not send</li> </ul>
<b>Default Value</b>	<b>N</b>

## USE\_DEL\_REG\_CLOSE\_n

<b>Parameter Name Example</b>	USE_DEL_REG_CLOSE_1, USE_DEL_REG_CLOSE_2, ..., USE_DEL_REG_CLOSE_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable the cancelation of registration before the SIP function shuts down when, for example, the configuration has changed.



<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Send un-REGISTER</li> <li>• <b>N</b>: Does not send</li> </ul>
<b>Default Value</b>	<b>N</b>

## SIP\_SESSION\_TIME\_n

<b>Parameter Name Example</b>	SIP_SESSION_TIME_1, SIP_SESSION_TIME_2, ..., SIP_SESSION_TIME_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the length of time, in seconds, that the unit waits before terminating SIP sessions when no reply to repeated requests is received. For details, refer to RFC 4028.
<b>Value Range</b>	0, 60–65535 (0: Disable)
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	Enable Session Timer (RFC 4028) (Page 127)

## SIP\_SESSION\_METHOD\_n

<b>Parameter Name Example</b>	SIP_SESSION_METHOD_1, SIP_SESSION_METHOD_2, ..., SIP_SESSION_METHOD_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the refreshing method of SIP sessions.
<b>Value Range</b>	0–2 – 0: reINVITE – 1: UPDATE – 2: AUTO
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	Session Timer Method (Page 127)

## SIP\_TIMER\_T1\_n

<b>Parameter Name Example</b>	SIP_TIMER_T1_1, SIP_TIMER_T1_2, ..., SIP_TIMER_T1_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the default interval, in milliseconds, between transmissions of SIP messages. For details, refer to RFC 3261.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 250</li> <li>• 500</li> <li>• 1000</li> <li>• 2000</li> <li>• 4000</li> </ul>

### 5.3.22 SIP Settings

---

<b>Default Value</b>	500
<b>Web User Interface Reference</b>	T1 Timer (Page 126)

### SIP\_TIMER\_T2\_n

---

<b>Parameter Name Example</b>	SIP_TIMER_T2_1, SIP_TIMER_T2_2, ..., SIP_TIMER_T2_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the maximum interval, in seconds, between transmissions of SIP messages. For details, refer to RFC 3261.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• 2</li><li>• 4</li><li>• 8</li><li>• 16</li><li>• 32</li></ul>
<b>Default Value</b>	4
<b>Web User Interface Reference</b>	T2 Timer (Page 126)

### SIP\_TIMER\_T4\_n

---

<b>Parameter Name Example</b>	SIP_TIMER_T4_1, SIP_TIMER_T4_2, ..., SIP_TIMER_T4_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the maximum period, in seconds, that a message can remain on the network.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• 0</li><li>• 1</li><li>• 2</li><li>• 3</li><li>• 4</li><li>• 5</li></ul>
<b>Default Value</b>	5

### SIP\_TIMER\_B\_n

---

<b>Parameter Name Example</b>	SIP_TIMER_B_1, SIP_TIMER_B_2, ..., SIP_TIMER_B_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the value of SIP timer B (INVITE transaction timeout timer), in milliseconds. For details, refer to RFC 3261.
<b>Value Range</b>	250–64000
<b>Default Value</b>	32000

## SIP\_TIMER\_D\_n

<b>Parameter Name Example</b>	SIP_TIMER_D_1, SIP_TIMER_D_2, ..., SIP_TIMER_D_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the value of SIP timer D (wait time for answer resending), in milliseconds. For details, refer to RFC 3261.
<b>Value Range</b>	0, 250–64000
<b>Default Value</b>	5000

## SIP\_TIMER\_F\_n

<b>Parameter Name Example</b>	SIP_TIMER_F_1, SIP_TIMER_F_2, ..., SIP_TIMER_F_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the value of SIP timer F (non-INVITE transaction timeout timer), in milliseconds. For details, refer to RFC 3261.
<b>Value Range</b>	250–64000
<b>Default Value</b>	32000

## SIP\_TIMER\_H\_n

<b>Parameter Name Example</b>	SIP_TIMER_H_1, SIP_TIMER_H_2, ..., SIP_TIMER_H_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the value of SIP timer H (wait time for ACK reception), in milliseconds. For details, refer to RFC 3261.
<b>Value Range</b>	250–64000
<b>Default Value</b>	32000

## SIP\_TIMER\_J\_n

<b>Parameter Name Example</b>	SIP_TIMER_J_1, SIP_TIMER_J_2, ..., SIP_TIMER_J_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the value of SIP timer J (wait time for non-INVITE request resending), in milliseconds. For details, refer to RFC 3261.
<b>Value Range</b>	0, 250–64000
<b>Default Value</b>	5000

## SIP\_100REL\_ENABLE\_n

<b>Parameter Name Example</b>	SIP_100REL_ENABLE_1, SIP_100REL_ENABLE_2, ..., SIP_100REL_ENABLE_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to add the option tag 100rel to the "Supported" header of the INVITE message. For details, refer to RFC 3262.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Y (Enable 100rel function)</li> <li>N (Disable 100rel function)</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>If set to "Y", the Reliability of Provisional Responses function will be enabled. The option tag 100rel will be added to the "Supported" header of the INVITE message and to the "Require" header of the "1xx" provisional message.</li> <li>If set to "N", the option tag 100rel will not be used.</li> </ul>
<b>Default Value</b>	Y
<b>Web User Interface Reference</b>	Enable 100rel (RFC 3262) (Page 127)

## SIP\_18X\_RTX\_INTVL\_n

<b>Parameter Name Example</b>	SIP_18X_RTX_INTVL_1, SIP_18X_RTX_INTVL_2, ..., SIP_18X_RTX_INTVL_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the retransmission interval, in seconds, for "18x" responses.
<b>Value Range</b>	0, 1–600 (0: Disable)
<b>Default Value</b>	0

## SIP\_SUBS\_EXPIRE\_n

<b>Parameter Name Example</b>	SIP_SUBS_EXPIRE_1, SIP_SUBS_EXPIRE_2, ..., SIP_SUBS_EXPIRE_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the length of time, in seconds, that the subscription remains valid. This value is set in the "Expires" header of the SUBSCRIBE request.
<b>Value Range</b>	1–4294967295
<b>Default Value</b>	3600

## SUB\_INTERVAL\_RATE\_n

<b>Parameter Name Example</b>	SUB_INTERVAL_RATE_1, SUB_INTERVAL_RATE_2, ..., SUB_INTERVAL_RATE_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the percentage of the "expires" value after which to refresh subscriptions by sending a new SUBSCRIBE message in the same dialog.
<b>Value Range</b>	1–100
<b>Default Value</b>	50

## SUB\_RTX\_INTVL\_n

<b>Parameter Name Example</b>	SUB_RTX_INTVL_1, SUB_RTX_INTVL_2, ..., SUB_RTX_INTVL_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the interval, in seconds, between transmissions of SUBSCRIBE requests when a subscription results in failure (server no reply or error reply).
<b>Value Range</b>	1–86400
<b>Default Value</b>	10

## SIP\_P\_PREFERRED\_ID\_n

<b>Parameter Name Example</b>	SIP_P_PREFERRED_ID_1, SIP_P_PREFERRED_ID_2, ..., SIP_P_PREFERRED_ID_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to add the "P-Preferred-Identity" header to SIP messages.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b> (Add the "P-Preferred-Identity" header)</li> <li>• <b>N</b> (Do not add the "P-Preferred-Identity" header)</li> </ul>
<b>Default Value</b>	<b>N</b>

## SIP\_PRIVACY\_n

<b>Parameter Name Example</b>	SIP_PRIVACY_1, SIP_PRIVACY_2, ..., SIP_PRIVACY_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to add the "Privacy" header to SIP messages.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b> (Add the "Privacy" header)</li> <li>• <b>N</b> (Do not add the "Privacy" header)</li> </ul>
<b>Default Value</b>	<b>N</b>

## ADD\_USER\_PHONE\_n

<b>Parameter Name Example</b>	ADD_USER_PHONE_1, ADD_USER_PHONE_2, ..., ADD_USER_PHONE_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to add "user=phone" to the SIP URI in SIP messages.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b> (Add "user=phone")</li> <li>• <b>N</b> (Do not add "user=phone")</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• SIP URI example: <ul style="list-style-type: none"> <li>– "sip:1111@tokyo.example.com;user=phone", when set to "Y"</li> <li>– "sip:1111@tokyo.example.com", when set to "N"</li> </ul> </li> </ul>
<b>Default Value</b>	N

## SIP\_ANM\_DISPNAME\_n

<b>Parameter Name Example</b>	SIP_ANM_DISPNAME_1, SIP_ANM_DISPNAME_2, ..., SIP_ANM_DISPNAME_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the text string to set as the display name in the "From" header when making anonymous calls.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 0 (Use normal display name)</li> <li>• 1 (Use "Anonymous" for display name)</li> <li>• 2 (Do not send a display name)</li> </ul>
<b>Default Value</b>	1

## SIP\_ANM\_USERNAME\_n

<b>Parameter Name Example</b>	SIP_ANM_USERNAME_1, SIP_ANM_USERNAME_2, ..., SIP_ANM_USERNAME_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the text string to set as the user name in the "From" header when making anonymous calls.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 0 (Use normal user name)</li> <li>• 1 (Use "anonymous" for user name)</li> <li>• 2 (Do not send a user name)</li> </ul>
<b>Default Value</b>	0

## SIP\_ANM\_HOSTNAME\_n

<b>Parameter Name Example</b>	SIP_ANM_HOSTNAME_1, SIP_ANM_HOSTNAME_2, ..., SIP_ANM_HOSTNAME_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to set an anonymous host name in the "From" header when making anonymous calls.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b> (Use "anonymous.invalid" for host name)</li> <li>• <b>N</b> (Use normal host name)</li> </ul>
<b>Default Value</b>	<b>N</b>

## SIP\_DETECT\_SSAF\_n

<b>Parameter Name Example</b>	SIP_DETECT_SSAF_1, SIP_DETECT_SSAF_2, ..., SIP_DETECT_SSAF_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable SSAF for the SIP servers (registrar server, proxy server, and presence server).
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b> (Enable SSAF)</li> <li>• <b>N</b> (Disable SSAF)</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• If set to "Y", the unit receives SIP messages only from the source addresses stored in the SIP servers (registrar server, proxy server, and presence server), and not from other addresses. However, if "SIP_OUTPROXY_ADDR_n" in <b>5.3.22 SIP Settings</b> is specified, the unit also receives SIP messages from the source address stored in the SIP outbound proxy server.</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable SSAF (SIP Source Address Filter) (Page 128)

## SIP\_RCV\_DET\_HEADER\_n

<b>Parameter Name Example</b>	SIP_RCV_DET_HEADER_1, SIP_RCV_DET_HEADER_2, ..., SIP_RCV_DET_HEADER_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to check the user name part of the SIP URI in the "To" header when receiving the INVITE message with an incorrect target SIP URI.

### 5.3.22 SIP Settings

---

<b>Value Range</b>	<ul style="list-style-type: none"><li>• <b>Y</b> (Enable username check)</li><li>• <b>N</b> (Disable username check)</li></ul> <p><b>Note</b></p> <ul style="list-style-type: none"><li>• If set to "Y", the unit will return an error reply when it receives the INVITE message with an incorrect target SIP URI.</li><li>• If set to "N", the unit will not check the user name part of the SIP URI in the "To" header.</li></ul>
<b>Default Value</b>	<b>N</b>

### SIP\_RCV\_DET\_REQURI\_n

---

<b>Parameter Name Example</b>	SIP_RCV_DET_REQURI_1, SIP_RCV_DET_REQURI_2, ..., SIP_RCV_DET_REQURI_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to check ReqURI that is the part of SIP URI in "To" header when INVITE with wrong target SIP URI is received.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• <b>Y</b></li><li>• <b>N</b></li></ul>
<b>Default Value</b>	<b>N</b>

### SIP\_CONTACT\_ON\_ACK\_n

---

<b>Parameter Name Example</b>	SIP_CONTACT_ON_ACK_1, SIP_CONTACT_ON_ACK_2, ..., SIP_CONTACT_ON_ACK_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to add the "Contact" header to SIP ACK message.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• <b>Y</b> (Add the "Contact" header)</li><li>• <b>N</b> (Do not add the "Contact" header)</li></ul>
<b>Default Value</b>	<b>N</b>

### VOICE\_MESSAGE\_AVAILABLE

---

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies how the existence of voice messages is determined when a "Messages-Waiting: yes" message is received.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• <b>Y</b> (Determines that voice messages exist when "Messages-Waiting: yes" is received with a "Voice-Message" line included.)</li><li>• <b>N</b> (Determines that voice messages exist when "Messages-Waiting: yes" is received even without a "Voice-Message" line included.)</li></ul>



Default Value	Y
---------------	---

## SIP\_INVITE\_EXPIRE\_n

Parameter Name Example	SIP_INVITE_EXPIRE_1, SIP_INVITE_EXPIRE_2, ..., SIP_INVITE_EXPIRE_6
Value Format	INTEGER
Description	Specifies the period, in seconds, in which the INVITE message will expire.
Value Range	0, 60–65535 (0: Disable)
Default Value	0

## SIP\_FOVR\_NORSP\_n

Parameter Name Example	SIP_FOVR_NORSP_1, SIP_FOVR_NORSP_2, ..., SIP_FOVR_NORSP_6
Value Format	BOOLEAN
Description	Specifies whether to perform the fail-over process when the unit detects that the SIP server is not replying to SIP message.
Value Range	<ul style="list-style-type: none"> <li>• Y (Enable fail-over)</li> <li>• N (Disable fail-over)</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• If set to "Y", the unit will try to use the other SIP servers via the DNS SRV and A records.</li> <li>• If set to "N", the unit will not try to use the other SIP servers.</li> </ul>
Default Value	Y

## SIP\_FOVR\_MAX\_n

Parameter Name Example	SIP_FOVR_MAX_1, SIP_FOVR_MAX_2, ..., SIP_FOVR_MAX_6
Value Format	INTEGER
Description	Specifies the maximum number of servers (including the first [normal] server) used in the fail-over process.
Value Range	1–4
Default Value	2

## SIP\_FOVR\_MODE\_n

Parameter Name Example	SIP_FOVR_MODE_1, SIP_FOVR_MODE_2, ..., SIP_FOVR_MODE_6
------------------------	--

### 5.3.22 SIP Settings

---

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether INVITE/SUBSCRIBE will also follow the REGISTER Failover result.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• <b>Y</b> (INVITE/SUBSCRIBE will follow the REGISTER Failover result.)</li><li>• <b>N</b> (INVITE/SUBSCRIBE will not follow the REGISTER Failover result.)</li></ul>
<b>Default Value</b>	<b>N</b>

### SIP\_FOVR\_DURATION\_n

---

<b>Parameter Name Example</b>	SIP_FOVR_DURATION_1, SIP_FOVR_DURATION_2, ..., SIP_FOVR_DURATION_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the number of transmission times for the REGISTER method at the Failover destination.
<b>Value Range</b>	0–10
<b>Default Value</b>	0

### SIP\_ADD\_ROUTE\_n

---

<b>Parameter Name Example</b>	SIP_ADD_ROUTE_1, SIP_ADD_ROUTE_2, ..., SIP_ADD_ROUTE_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether or not to add Route headers when setting OutBoundProxy.  <b>Note</b> <ul style="list-style-type: none"><li>• Route headers are not added when OutBoundProxy and other server settings are the same.</li></ul>
<b>Value Range</b>	<ul style="list-style-type: none"><li>• <b>Y</b> (Route headers are added)</li><li>• <b>N</b> (Route headers are not added)</li></ul>
<b>Default Value</b>	<b>Y</b>

### SIP\_REQURI\_PORT\_n

---

<b>Parameter Name Example</b>	SIP_REQURI_PORT_1, SIP_REQURI_PORT_2, ..., SIP_REQURI_PORT_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to add the port parameter to the Request-Line in the initial SIP request.

<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b> (Add the port parameter)</li> <li>• <b>N</b> (Do not add the port parameter)</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• Request URI in REGISTER example: <ul style="list-style-type: none"> <li>– If set to "Y", the port parameter is added to the Request-Line, as follows: Request-Line: REGISTER sip:192.168.0.10:5060 SIP/2.0</li> <li>– If set to "N", the port parameter is not added to the Request-Line, as follows: Request-Line: REGISTER sip:192.168.0.10 SIP/2.0</li> </ul> </li> </ul>
<b>Default Value</b>	<b>Y</b>

## ADD\_EXPIRES\_HEADER\_n

<b>Parameter Name Example</b>	ADD_EXPIRES_HEADER_1, ADD_EXPIRES_HEADER_2, ..., ADD_EXPIRES_HEADER_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to add an "Expires" header to REGISTER (adds an "expires" parameter to the "Contact" header).
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b> (Add Expires Header)</li> <li>• <b>N</b> (Do not add Expires Header)</li> </ul>
<b>Default Value</b>	<b>N</b>

## ADD\_TRANSPORT\_UDP\_n

<b>Parameter Name Example</b>	ADD_TRANSPORT_UDP_1, ADD_TRANSPORT_UDP_2, ..., ADD_TRANSPORT_UDP_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to add the attribute "transport=udp" to the SIP header URI.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b> (Add Transport UDP)</li> <li>• <b>N</b> (Do not add Transport UDP)</li> </ul>
<b>Default Value</b>	<b>N</b>

## SIP\_ADD\_DIVERSION\_n

<b>Parameter Name Example</b>	SIP_ADD_DIVERSION_1, SIP_ADD_DIVERSION_2, ..., SIP_ADD_DIVERSION_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies whether to add Diversion header information.

### 5.3.22 SIP Settings

---

<b>Value Range</b>	0–2 – 0: Do not add Diversion header information – 1: Use own diversion information only for the Diversion header – 2: Add diversion information to existing Diversion header
<b>Default Value</b>	0

### TRANSFER\_RECALL\_TIM

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the time that the original call is resumed when the forwarding party does not response by Refer method for call transfer.
<b>Value Range</b>	0, 1–240
<b>Default Value</b>	0

### SIGNAL\_COMPRESSION\_n

---

<b>Parameter Name Example</b>	<code>SIGNAL_COMPRESSION_1</code> , <code>SIGNAL_COMPRESSION_2</code> , ..., <code>SIGNAL_COMPRESSION_6</code>
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies whether to use signal compression. When using signal compression, select Required or Supported.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• 0: Disable</li><li>• 1: Enable (Required)</li><li>• 2: Enable (Supported)</li></ul>
<b>Default Value</b>	0

### MAX\_BREADTH\_n

---

<b>Parameter Name Example</b>	<code>MAX_BREADTH_1</code> , <code>MAX_BREADTH_2</code> , ..., <code>MAX_BREADTH_6</code>
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the Max Breadth that is max Folk number at Proxy.
<b>Value Range</b>	0–99 (0: Not add max-breadth header)
<b>Default Value</b>	60

### MUTIPART\_BOUNDARY\_DELIMITER\_n

---

<b>Parameter Name Example</b>	<code>MUTIPART_BOUNDARY_DELIMITER_1</code> , <code>MUTIPART_BOUNDARY_DELIMITER_2</code> , ..., <code>MUTIPART_BOUNDARY_DELIMITER_6</code>
<b>Value Format</b>	STRING

<b>Description</b>	Specifies the strings that indicates the boundary for Multipart Bodies.
<b>Value Range</b>	Max. 70 characters
<b>Default Value</b>	boundary1

### RFC5626\_KEEPALIVE\_ENABLE\_n

<b>Parameter Name Example</b>	RFC5626_KEEPALIVE_ENABLE_1, RFC5626_KEEPALIVE_ENABLE_2, ..., RFC5626_KEEPALIVE_ENABLE_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to use Keepalive that defined in RFC5626.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable RFC5626 Keepalive</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>

### RINGTONE\_183\_180\_ENABLE\_n

<b>Parameter Name Example</b>	RINGTONE_183_180_ENABLE_1, RINGTONE_183_180_ENABLE_2, ..., RINGTONE_183_180_ENABLE_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to ring the local ringback tone when 180 is received after receiving 183 Early media.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Performs ringback tone after early media</li> <li>• <b>N</b>: Does not perform</li> </ul>
<b>Default Value</b>	<b>N</b>

### SIP\_403\_REG\_SUB\_RTX\_n

<b>Parameter Name Example</b>	SIP_403_REG_SUB_RTX_1, SIP_403_REG_SUB_RTX_2, ..., SIP_403_REG_SUB_RTX_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether or not to send a request when a 403 Forbidden reply is received from the server in response to a REGISTER or SUBSCRIBE.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b> (Send)</li> <li>• <b>N</b> (Do not send)</li> </ul>
<b>Default Value</b>	<b>N</b>

## SIP\_FORK\_MODE\_n

Parameter Name Example	SIP_FORK_MODE_1, SIP_FORK_MODE_2, ..., SIP_FORK_MODE_6
Value Format	BOOLEAN
Description	Specifies whether to use SIP Fork.
Value Range	<ul style="list-style-type: none"> <li>Y: Use SIP Fork</li> <li>N: Not use SIP Fork</li> </ul>
Default Value	Y

## AKA\_AUTHENTICATION\_ENABLE\_n

Parameter Name Example	AKA_AUTHENTICATION_ENABLE_1, AKA_AUTHENTICATION_ENABLE_2, ..., AKA_AUTHENTICATION_ENABLE_6
Value Format	BOOLEAN
Description	Specifies whether to use AKA authentication.
Value Range	<ul style="list-style-type: none"> <li>Y: Use AKA authentication</li> <li>N: Not use AKA authentication</li> </ul>
Default Value	N

## RFC2543\_HOLD\_ENABLE\_n

Parameter Name Example	RFC2543_HOLD_ENABLE_1, RFC2543_HOLD_ENABLE_2, ..., RFC2543_HOLD_ENABLE_6
Value Format	BOOLEAN
Description	Specifies whether to enable the RFC 2543 Call Hold feature on this line.
Value Range	<ul style="list-style-type: none"> <li>Y (Enable RFC 2543 Call Hold)</li> <li>N (Disable RFC 2543 Call Hold)</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>If set to "Y", the "c=0.0.0.0" syntax will be set in SDP when sending a re-INVITE message to hold the call.</li> <li>If set to "N", the "c=x.x.x.x" syntax will be set in SDP.</li> </ul>
Default Value	Y
Web User Interface Reference	Enable c=0.0.0.0 Hold (RFC 2543) (Page 128)

## SIP\_HOLD\_ATTRIBUTE\_n

Parameter Name Example	SIP_HOLD_ATTRIBUTE_1, SIP_HOLD_ATTRIBUTE_2, ..., SIP_HOLD_ATTRIBUTE_6
------------------------	--

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies whether to set "a=inactive " or not when the call is on hold.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 0: send only</li> <li>• 1: inactive</li> </ul>
<b>Default Value</b>	0

## SDP\_USER\_ID\_n

<b>Parameter Name Example</b>	SDP_USER_ID_1, SDP_USER_ID_2, ..., SDP_USER_ID_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the user ID used in the "o=" line field of SDP.
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	Empty string

## TELEVENT\_PAYLOAD

<b>Value Format</b>	INTEGER
<b>Description</b>	<p>Specifies the RFC 2833 payload type for DTMF tones.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• This setting is available only when "OUTBANDDTMF_n" is set to "Y".</li> </ul>
<b>Value Range</b>	96–127
<b>Default Value</b>	101
<b>Web User Interface Reference</b>	Telephone-event Payload Type (Page 130)

## HOLD\_SOUND\_PATH\_n

<b>Parameter Name Example</b>	HOLD_SOUND_PATH_1, HOLD_SOUND_PATH_2, ..., HOLD_SOUND_PATH_6
<b>Value Format</b>	INTEGER
<b>Description</b>	<p>Specifies whether the unit's hold tone or the network server's hold tone (Music on hold) is played when a party is put on hold.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• It is necessary to set the following parameters to play the unit's hold tone. <ul style="list-style-type: none"> <li>– HOLD_TONE_FRQ</li> <li>– HOLD_TONE_GAIN</li> </ul> </li> </ul>

### 5.3.22 SIP Settings

---

<b>Value Range</b>	0–1 – 0: The unit's hold tone is played. – 1: The network server's hold tone (Music on hold) is played.
<b>Default Value</b>	0

### KEEP\_EARLYMEDIA\_n

---

<b>Parameter Name Example</b>	KEEP_EARLYMEDIA_1, KEEP_EARLYMEDIA_2, ..., KEEP_EARLYMEDIA_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to continue Early Media call or not when 18x without SDP is received after Early Media connection is established while making a call.
<b>Value Range</b>	<ul style="list-style-type: none"><li>Y: Continues</li><li>N: Does not continue (Switch to ringback tone)</li></ul>
<b>Default Value</b>	N

### RFC3327\_SUPPORT\_PATH

---

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to add "supported: path" to support Path header.
<b>Value Range</b>	<ul style="list-style-type: none"><li>Y: Adds supported: path</li><li>N: Does not add</li></ul>
<b>Default Value</b>	Y

### RFC4244\_SUPPORT\_HISTORY

---

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to add "supported: history" to support History info header.
<b>Value Range</b>	<ul style="list-style-type: none"><li>Y: Adds supported: history</li><li>N: Does not add</li></ul>
<b>Default Value</b>	N

### RFC3319\_SUPPORT\_JOIN

---

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to add "supported: join" to support join header.



<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Adds supported: join</li> <li>• <b>N</b>: Does not add</li> </ul>
<b>Default Value</b>	<b>N</b>

## RFC6947\_DRAFT08\_ALTC

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to support RFC6947 draft08 when the attvalue is not attached after altc.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Performs ALTC by Draft08</li> <li>• <b>N</b>: Performs ALTC by RFC6947</li> </ul>
<b>Default Value</b>	<b>Y</b>

## RFC5627\_SUPPORT\_GRUU\_n

<b>Parameter Name Example</b>	RFC5627_SUPPORT_GRUU_1, RFC5627_SUPPORT_GRUU_2, ..., RFC5627_SUPPORT_GRUU_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to add "supported: gruu" to support join header.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Adds supported: gruu</li> <li>• <b>N</b>: Does not add</li> </ul>
<b>Default Value</b>	<b>N</b>

## ESCAPECODE\_CONVERSION

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to convert "#" code to "%23".
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Convert "#" code to "%23"</li> <li>• <b>N</b>: Does not convert</li> </ul>
<b>Default Value</b>	<b>Y</b>

## 5.3.23 SIP-TLS Settings

### SIP\_TRANSPORT\_n

<b>Parameter Name Example</b>	SIP_TRANSPORT_1, SIP_TRANSPORT_2, ..., SIP_TRANSPORT_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies which transport layer protocol to use for sending SIP packets.

### 5.3.23 SIP-TLS Settings

---

<b>Value Range</b>	<ul style="list-style-type: none"><li>• 0 (UDP)</li><li>• 1 (TCP)</li><li>• 2 (TLS)</li></ul>
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	Transport Protocol (Page 128)

### SIP\_TLS\_MODE\_n

---

<b>Parameter Name Example</b>	SIP_TLS_MODE_1, SIP_TLS_MODE_2, ..., SIP_TLS_MODE_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Select the secure SIP protocol.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• 0: SIPS</li><li>• 1: SIP-TLS</li></ul>
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	TLS Mode (Page 128)

### SIP\_TLS\_RECONNECT\_n

---

<b>Parameter Name Example</b>	SIP_TLS_RECONNECT_1, SIP_TLS_RECONNECT_2, ..., SIP_TLS_RECONNECT_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to perform TLS reconnect after TLS session is disconnected.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• <b>Y</b>: Performs TLS connection automatically</li><li>• <b>N</b>: Does not perform</li></ul>
<b>Default Value</b>	<b>Y</b>

### SIP\_TLS\_SRV\_PREFIX\_n

---

<b>Parameter Name Example</b>	SIP_TLS_SRV_PREFIX_1, SIP_TLS_SRV_PREFIX_2, ..., SIP_TLS_SRV_PREFIX_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies a prefix to add to the domain name when performing a DNS SRV lookup using TLS.
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	_sips._tcp.
<b>Web User Interface Reference</b>	SRV lookup Prefix for TLS (Page 125)

## SIP\_TLS\_VERIFY\_n

<b>Parameter Name Example</b>	SIP_TLS_VERIFY_1, SIP_TLS_VERIFY_2, ..., SIP_TLS_VERIFY_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies whether to enable the verification of the root certificate.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 0: No verification</li> <li>• 1: Simple verification</li> <li>• 2: Precise verification</li> </ul>
<b>Default Value</b>	0

## SIP\_TLS\_ROOT\_CERT\_PATH

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URI where the root certificate is stored.
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string

## SIP\_TLS\_CLIENT\_CERT\_PATH

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URI where the client certificate is stored.
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string

## SIP\_TLS\_PKEY\_PATH

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URI where the private key is stored.
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string

## 5.3.24 CODEC Settings

### CODEC\_G729\_PARAM\_n

<b>Parameter Name Example</b>	CODEC_G729_PARAM_1, CODEC_G729_PARAM_2, ..., CODEC_G729_PARAM_6
<b>Value Format</b>	INTEGER

### 5.3.24 CODEC Settings

<b>Description</b>	Specifies whether to add an attribute line, "a=fmtp:18 annexb=no", to SDP when the codec is set to "G729A".
<b>Value Range</b>	<ul style="list-style-type: none"> <li>0: Do not add "a=fmtp:18 annexb=no"</li> <li>1: Add "a=fmtp:18 annexb=no"</li> </ul>
<b>Default Value</b>	0

## CODEC\_ENABLEx\_n

<b>Parameter Name Example</b>	CODEC_ENABLEx_1, CODEC_ENABLEx_2, ..., CODEC_ENABLEx_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	<p>Specifies whether to enable the codec specified in the parameter list.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>The "x" character in the parameter title should be changed to one of the following numbers, according to the codec to be changed. <ul style="list-style-type: none"> <li>0: G.722</li> <li>1: PCMA</li> <li>3: G.729A</li> <li>4: PCMU</li> </ul> </li> <li>For codec setting examples, see <b>2.5.1 Examples of Codec Settings</b>.</li> </ul>
<b>Value Range</b>	<ul style="list-style-type: none"> <li>y (Enable)</li> <li>n (Disable)</li> </ul>
<b>Default Value</b>	y
<b>Web User Interface Reference</b>	<ul style="list-style-type: none"> <li>G.722 (Enable) (Page 132)</li> <li>PCMA (Enable) (Page 133)</li> <li>G.729A (Enable) (Page 133)</li> <li>PCMU (Enable) (Page 133)</li> </ul>

## CODEC\_PRIORITYx\_n

<b>Parameter Name Example</b>	CODEC_PRIORITYx_1, CODEC_PRIORITYx_2, ..., CODEC_PRIORITYx_6
<b>Value Format</b>	INTEGER

<b>Description</b>	Specifies the priority order for the codec.  <b>Note</b> <ul style="list-style-type: none"> <li>• The "x" character in the parameter title should be changed to one of the following numbers, according to the codec to be changed. <ul style="list-style-type: none"> <li>– 0: G.722</li> <li>– 1: PCMA</li> <li>– 3: G.729A</li> <li>– 4: PCMU</li> </ul> </li> <li>• For codec setting examples, see <b>2.5.1 Examples of Codec Settings</b>.</li> </ul>
<b>Value Range</b>	1–255
<b>Default Value</b>	1
<b>Web User Interface Reference</b>	<ul style="list-style-type: none"> <li>• G.722 (Priority) (Page 132)</li> <li>• PCMA (Priority) (Page 133)</li> <li>• G.729A (Priority) (Page 133)</li> <li>• PCMU (Priority) (Page 134)</li> </ul>

## 5.3.25 DTMF Settings

### DTMF\_METHOD\_n

<b>Parameter Name Example</b>	DTMF_METHOD_1, DTMF_METHOD_2, ..., DTMF_METHOD_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the method to notify the DTMF.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 0: RFC2833</li> <li>• 1: Inband</li> <li>• 2: SIP INFO</li> </ul> <b>Note</b> <ul style="list-style-type: none"> <li>• RFC2833 refers to Outband DTMF.</li> <li>• Inband refers to Inband DTMF.</li> </ul>
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	DTMF Type (Page 134)

### OUTBANDDTMF\_VOL

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the volume (in decibels [dB]) of the DTMF tone using RFC 2833.
<b>Value Range</b>	-63–0

### 5.3.26 RTP/RTCP/RTCP-XR Settings

---

Default Value	-5
---------------	----

#### INBANDDTMF\_VOL

---

Value Format	INTEGER
Description	Specifies the volume (in decibels [dB]) of in-band DTMF tones.
Value Range	-46–0
Default Value	-5

#### DTMF\_SIGNAL\_LEN

---

Value Format	INTEGER
Description	Specifies the length of the DTMF signal, in milliseconds.
Value Range	60–200
Default Value	180

#### DTMF\_INTDIGIT\_TIM

---

Value Format	INTEGER
Description	Specifies the interval, in milliseconds, between DTMF signals.
Value Range	60–200
Default Value	90

### 5.3.26 RTP/RTCP/RTCP-XR Settings

#### DSCP\_RTP\_n

---

Parameter Name Example	DSCP_RTP_1, DSCP_RTP_2, ..., DSCP_RTP_6
Value Format	INTEGER
Description	Specifies the DSCP level of DiffServ applied to RTP packets.
Value Range	0–63
Default Value	0
Web User Interface Reference	RTP Packet QoS (DSCP) (Page 134)

#### DSCP\_RTCP\_n

---

Parameter Name Example	DSCP_RTCP_1, DSCP_RTCP_2, ..., DSCP_RTCP_6
------------------------	--

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the DSCP level of DiffServ applied to RTCP/RTCP-XR packets.
<b>Value Range</b>	0–63
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	RTCP Packet QoS (DSCP) (Page 134)

## MAX\_DELAY\_n

<b>Parameter Name Example</b>	<b>MAX_DELAY_1, MAX_DELAY_2, ..., MAX_DELAY_6</b>
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the maximum delay, in 10-millisecond units, of the jitter buffer.
<b>Value Range</b>	3–50 (× 10 ms)  <b>Note</b> <ul style="list-style-type: none"> <li>• This setting is subject to the following conditions: <ul style="list-style-type: none"> <li>– This value must be greater than "NOM_DELAY"</li> <li>– This value must be greater than "MIN_DELAY"</li> <li>– "NOM_DELAY" must be greater than or equal to "MIN_DELAY"</li> </ul> </li> </ul>
<b>Default Value</b>	20

## MIN\_DELAY\_n

<b>Parameter Name Example</b>	<b>MIN_DELAY_1, MIN_DELAY_2, ..., MIN_DELAY_6</b>
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the minimum delay, in 10-millisecond units, of the jitter buffer.
<b>Value Range</b>	1 or 2 (× 10 ms)  <b>Note</b> <ul style="list-style-type: none"> <li>• This setting is subject to the following conditions: <ul style="list-style-type: none"> <li>– This value must be less than or equal to "NOM_DELAY"</li> <li>– This value must be less than "MAX_DELAY"</li> <li>– "MAX_DELAY" must be greater than "NOM_DELAY"</li> </ul> </li> </ul>
<b>Default Value</b>	2

## NOM\_DELAY\_n

<b>Parameter Name Example</b>	<b>NOM_DELAY_1, NOM_DELAY_2, ..., NOM_DELAY_6</b>
<b>Value Format</b>	INTEGER

### 5.3.26 RTP/RTCP/RTCP-XR Settings

---

<b>Description</b>	Specifies the initial delay, in 10-millisecond units, of the jitter buffer.
<b>Value Range</b>	1–7 (× 10 ms)  <b>Note</b> <ul style="list-style-type: none"><li>This setting is subject to the following conditions:<ul style="list-style-type: none"><li>This value must be greater than or equal to "<b>MIN_DELAY</b>".</li><li>This value must be less than "<b>MAX_DELAY</b>".</li></ul></li></ul>
<b>Default Value</b>	1

### RTP\_PORT\_MIN

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the lowest port number that the unit will use for RTP packets.
<b>Value Range</b>	1024–59598 (only even)
<b>Default Value</b>	16000
<b>Web User Interface Reference</b>	Minimum RTP Port Number (Page 129)

### RTP\_PORT\_MAX

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the highest port number that the unit will use for RTP packets.
<b>Value Range</b>	1424–59998 (only even)
<b>Default Value</b>	20000
<b>Web User Interface Reference</b>	Maximum RTP Port Number (Page 130)

### RTP\_PTIME

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the interval, in milliseconds, between transmissions of RTP packets.
<b>Value Range</b>	<ul style="list-style-type: none"><li>20</li><li>30</li><li>40</li></ul>
<b>Default Value</b>	20
<b>Web User Interface Reference</b>	RTP Packet Time (Page 129)

### RTP\_TARGET\_CHECK

---

<b>Value Format</b>	INTEGER
---------------------	---------



<b>Description</b>	Specifies the diagnose level for received RTP.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 0: diagnose destination IP Address and port</li> <li>• 1: diagnose destination IP address</li> <li>• 2: diagnose destination port</li> <li>• 3: diagnose nothing</li> </ul>
<b>Default Value</b>	0

## RTCP\_ENABLE\_n

<b>Parameter Name Example</b>	RTCP_ENABLE_1, RTCP_ENABLE_2, ..., RTCP_ENABLE_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable RTCP (Real-Time Transport Control Protocol). For details, refer to RFC 3550.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b> (Enable RTCP)</li> <li>• <b>N</b> (Disable RTCP)</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable RTCP (Page 135)

## RTCP\_INTVL\_n

<b>Parameter Name Example</b>	RTCP_INTVL_1, RTCP_INTVL_2, ..., RTCP_INTVL_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the interval, in seconds, between RTCP/RTCP-XR packets.
<b>Value Range</b>	5–65535
<b>Default Value</b>	5
<b>Web User Interface Reference</b>	RTCP&RTCP-XR Interval (Page 135)

## RTCP\_SEND\_BY\_SDP\_n

<b>Parameter Name Example</b>	RTCP_SEND_BY_SDP_1, RTCP_SEND_BY_SDP_2, ..., RTCP_SEND_BY_SDP_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies whether to send RTCP signals by SDP (Session Description Protocol).
<b>Value Range</b>	0–1 <ul style="list-style-type: none"> <li>– 0: Send RTCP signals using the value specified in "RTCP_INTVL_n", if the "RTCP_ENABLE_n" parameter is enabled.</li> <li>– 1: Send RTCP signals using the value specified in the SDP attribute "a=rtcp:".</li> </ul>

### 5.3.27 SRTP Settings

---

Default Value	0
---------------	---

### RTP\_CLOSE\_ENABLE\_n

---

Parameter Name Example	RTP_CLOSE_ENABLE_1, RTP_CLOSE_ENABLE_2, ..., RTP_CLOSE_ENABLE_6
Value Format	BOOLEAN
Description	Specifies whether to enable processing to close held RTP sockets.
Value Range	<ul style="list-style-type: none"><li>Y (Enable RTP Close)</li><li>N (Disable RTP Close)</li></ul>
Default Value	N

### RTCPXR\_ENABLE\_n

---

Parameter Name Example	RTCPXR_ENABLE_1, RTCPXR_ENABLE_2, ..., RTCPXR_ENABLE_6
Value Format	BOOLEAN
Description	Specifies whether to enable or disable RTCP-XR.
Value Range	<ul style="list-style-type: none"><li>Y: Enable RTCP-XR</li><li>N: Disable</li></ul>
Default Value	N
Web User Interface Reference	Enable RTCP-XR (Page 135)

### 5.3.27 SRTP Settings

### SRTP\_CONNECT\_MODE\_n

---

Parameter Name Example	SRTP_CONNECT_MODE_1, SRTP_CONNECT_MODE_2, ..., SRTP_CONNECT_MODE_6
Value Format	INTEGER
Description	Specifies the mode of SRTP feature.
Value Range	<ul style="list-style-type: none"><li>0: SRTP</li><li>1: RTP/SRTP</li></ul> <p><b>Note</b></p> <ul style="list-style-type: none"><li>When RTP/SRTP is specified, operation is in RTP mode.</li></ul>
Default Value	1
Web User Interface Reference	SRTP Mode (Page 135)

## SRTP\_MIX\_CONFERENCE\_ENABLE\_n

<b>Parameter Name Example</b>	SRTP_MIX_CONFERENCE_ENABLE_1, SRTP_MIX_CONFERENCE_ENABLE_2, ..., SRTP_MIX_CONFERENCE_ENABLE_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to allow conferences where each participant can use either SRTP or RTP.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable Mixed SRTP & RTP by Conference (Page 136)

## SRTP\_MIX\_TRANSFER\_ENABLE\_n

<b>Parameter Name Example</b>	SRTP_MIX_TRANSFER_ENABLE_1, SRTP_MIX_TRANSFER_ENABLE_2, ..., SRTP_MIX_TRANSFER_ENABLE_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to allow call transfers between a user who is using SRTP and a user who is using RTP.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable Mixed SRTP & RTP by Transfer (Page 136)

## SRTP\_HELD\_CALL\_RTP\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to allow playing the melody on hold over RTP on a call that is using SRTP.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>Y</b>

## 5.3.28 VQ Report by PUBLISH

### VQREPORT\_COLLECTOR\_ADDRESS

<b>Value Format</b>	STRING
---------------------	--------

### 5.3.28 VQ Report by PUBLISH

---

<b>Description</b>	Specifies the IP address or FQDN of the collector server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Server Address (Page 130)

### VQREPORT\_COLLECTOR\_PORT

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the port of the collector server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	5060
<b>Web User Interface Reference</b>	Port (Page 130)

### VQREPORT\_SEND

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the sending type of the VQ report using PUBLISH.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• 0: Disable</li><li>• 1: End of Session Report Using PUBLISH</li><li>• 2: Interval report Using PUBLISH</li><li>• 3: Alert Report Using PUBLISH</li></ul>
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	Enable PUBLISH (Page 130)

### ALERT\_REPORT\_TRIGGER

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the trigger to notify the VQ report.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• 0: Warning</li><li>• 1: Critical</li></ul>
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	Alert Report Trigger (Page 131)

### ALERT\_REPORT\_MOSQ\_CRITICAL

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the critical criteria to send VQ report at the time of occurring the MOSQ.

<b>Value Range</b>	0–40
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	Threshold MOS-LQ (Critical) (Page 131)

## ALERT\_REPORT\_MOSQ\_WARNING

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the warning criteria to send VQ report at the time of occurring the MOSQ.
<b>Value Range</b>	0–40
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	Threshold MOS-LQ (Warning) (Page 131)

## ALERT\_REPORT\_DELAY\_CRITICAL

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the critical criteria to send VQ report at the time of occurring the delay.
<b>Value Range</b>	0–2000
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	Threshold Delay (Critical) (Page 131)

## ALERT\_REPORT\_DELAY\_WARNING

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the warning criteria to send VQ report at the time of occurring the delay.
<b>Value Range</b>	0–2000
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	Threshold Delay (Warning) (Page 132)

## VQREPORT\_SIGNAL\_COMPRESSION

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to use signal compression for sending VQ report.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>

## 5.3.29 uaCSTA Settings

### UACSTA\_ENABLE\_n

<b>Parameter Name Example</b>	UACSTA_ENABLE_1, UACSTA_ENABLE_2, ..., UACSTA_ENABLE_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable the uaCSTA feature.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Y: Enable</li> <li>• N: Disable</li> </ul>
<b>Default Value</b>	N

### UACSTA\_UNIQUE\_ID

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the SIP-URI for registering to CSTA server.
<b>Value Range</b>	Max. 64 characters
<b>Default Value</b>	Empty string

### CSTA\_PORT

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the source port number used by the unit for uaCSTA communication.
<b>Value Range</b>	1–65535
<b>Default Value</b>	6060

### CSTA\_PROXY\_ADDR

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the IP address or FQDN of the proxy server for CSTA.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string

### CSTA\_PROXY\_PORT

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the port of the proxy server for CSTA.
<b>Value Range</b>	1–65535

Default Value	5060
---------------	------

## CSTA\_RGSTR\_ADDR

Value Format	STRING
Description	Specifies the IP address or FQDN of the registrar server for CSTA.
Value Range	Max. 256 characters
Default Value	Empty string

## CSTA\_RGSTR\_PORT

Value Format	INTEGER
Description	Specifies the port of the registrar server for CSTA.
Value Range	1–65535
Default Value	5060

## CSTA\_REG\_EXPIRE\_TIME

Value Format	INTEGER
Description	Specifies the length of time, in seconds, that the registration remains valid. This value is set in the "Expires" header of the REGISTER request for CSTA.
Value Range	1–4294967295
Default Value	3600

## CSTA\_TRANSPORT

Value Format	INTEGER
Description	Specifies which transport layer protocol to use for sending SIP packets.
Value Range	<ul style="list-style-type: none"> <li>• 0: UDP</li> <li>• 1: TCP</li> <li>• 2: TLS</li> </ul>
Default Value	0

## CSTA\_RGSTR\_AUTHID

Value Format	STRING
Description	Specifies the authentication ID for received REGISTER.

### 5.3.30 Telephone Settings

---

<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Empty string

## CSTA\_RGSTR\_PASS

---

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the authentication password for received REGISTER.
<b>Value Range</b>	Max. 128 characters
<b>Default Value</b>	Empty string

### 5.3.30 Telephone Settings

## POWER\_ON\_DISPLAY\_LOGO\_PATH

---

<b>Value Format</b>	STRING
<b>Description</b>	Specifies URI for logo image file displayed when power is turned on. <b>Note</b> <ul style="list-style-type: none"><li>• Size: 132 × 64</li><li>• File type: BMP (1 bit)</li></ul>
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string

## FIRSTDIGIT\_TIM

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the length of time, in seconds, within which the first digits of a dial number must be dialed.
<b>Value Range</b>	1–600 (s)
<b>Default Value</b>	30
<b>Web User Interface Reference</b>	First-digit Timeout (Page 138)

## INTDIGIT\_TIM

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the length of time, in seconds, within which subsequent digits of a dial number must be dialed.
<b>Value Range</b>	1–15 (s)
<b>Default Value</b>	5



<b>Web User Interface Reference</b>	Inter-digit Timeout (Page 138)
-------------------------------------	--------------------------------

## POUND\_KEY\_DELIMITER\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether the # key is treated as a regular dialed digit or a delimiter, when dialed as or after the second digit.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Y (# is treated as the end of dialing delimiter)</li> <li>N (# is treated as a regular dialed digit)</li> </ul>
<b>Default Value</b>	Y
<b>Web User Interface Reference</b>	Enable # Key as delimiter (Page 138)

## RINGTONE\_SETTING\_n

<b>Parameter Name Example</b>	RINGTONE_SETTING_1, RINGTONE_SETTING_2, ..., RINGTONE_SETTING_6
<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the ringtone to each line for a unit.
<b>Value Range</b>	1–32
<b>Default Value</b>	RINGTONE_SETTING_1=1, RINGTONE_SETTING_2=2, ..., RINGTONE_SETTING_6=6

## DISPLAY\_NAME\_REPLACE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether the name saved in the phonebook is used in place of the name display if a matching entry is found.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Y (Enable Display Name Replace)</li> <li>N (Disable Display Name Replace)</li> </ul>
<b>Default Value</b>	Y

## NUMBER\_MATCHING\_LOWER\_DIGIT

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the minimum number of digits with which to match a phonebook entry with an incoming call's caller ID.
<b>Value Range</b>	0–15
<b>Default Value</b>	7

## NUMBER\_MATCHING\_UPPER\_DIGIT

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the maximum number of digits with which to match a phonebook entry with an incoming call's caller ID.
<b>Value Range</b>	0–15
<b>Default Value</b>	10

## FLASH\_RECALL\_TERMINATE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies the function of the FLASH/RECALL button during a conversation.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <code>Y</code> (Terminate)</li> <li>• <code>N</code> (EFA)</li> </ul>
<b>Default Value</b>	<code>Y</code>

## FLASHHOOK\_CONTENT\_TYPE

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the type of signal sent when sending a flash hook event.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <code>Signal</code></li> <li>• <code>flashhook</code></li> </ul>
<b>Default Value</b>	<code>Signal</code>

## NUM\_PLAN\_PARKING

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the call parking number.
<b>Value Range</b>	0–4 digits (0–9, *, #)
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Call Park Number (Page 140)

## CALLPARK\_KEY\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to display "Call Park" in the Call Parking Func menu.

<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable Call Park Key (Page 140)

## NUM\_PLAN\_PARK\_RETRIEVING

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the park retrieve number.
<b>Value Range</b>	0–4 digits (0–9, *, #)
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Park Retrieve Number (Page 140)

## IDLE\_SOFT\_KEY\_PARK\_RETRIEVING

<b>Value Format</b>	INTEGER
<b>Description</b>	<p>Specifies whether to have soft key for the park retrieving.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• This feature is available only when "CALLPARK_NOTIFICATION_ENABLE_n" is set to "Y", and "NUM_PLAN_PARK_RETRIEVING" is set (→see CALLPARK_NOTIFICATION_ENABLE_n, NUM_PLAN_PARK_RETRIEVING).</li> </ul>
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 0: no</li> <li>• 1: Soft Key (A)</li> <li>• 2: Soft key (B)</li> <li>• 3: Soft key (C)</li> </ul>
<b>Default Value</b>	0
<b>Web User Interface Reference</b>	Park Retrieve Soft Key (Page 140)

## HOLD\_RECALL\_TIM

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the duration of the hold recall timer. If set to "0", the function is disabled.
<b>Value Range</b>	0–240 (0: Disable)
<b>Default Value</b>	60

## HOLD\_TRANSFER\_OPERATION

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to transfer a call by Hold button.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable (Press the Hold button to transfer a call.) talk → hold → 2nd talk → Transfer (or on-hook)</li> <li>• <b>N</b>: Disable (Press the Transfer button to transfer a call.) talk → transfer → 2nd talk → transfer (or on-hook)</li> </ul>
<b>Default Value</b>	<b>N</b>

## ONHOOK\_TRANSFER\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable on hook transfer when <b>HOLD_TRANSFER_OPERATION="N"</b> .
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b> (Enable On-hook Transfer)</li> <li>• <b>N</b> (Disable On-hook Transfer)</li> </ul>
<b>Default Value</b>	<b>Y</b>

## ONHOOK\_HOLD\_TRNS\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable on hook transfer when <b>HOLD_TRANSFER_OPERATION="Y"</b> .
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b> (Enable On-hook Transfer)</li> <li>• <b>N</b> (Disable On-hook Transfer)</li> </ul>
<b>Default Value</b>	<b>N</b>

## BLIND\_TRANSFER\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable blind transfer.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>Y</b>

## SYS\_LOCK\_ENABLE

<b>Value Format</b>	BOOLEAN
---------------------	---------

<b>Description</b>	Specifies whether to enable locking the unit.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable IP Phone Lock (Page 118)

## SYS\_LOCK\_PASSWORD

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the password for unlocking the unit.
<b>Value Range</b>	Null, 4 digits (0–9)
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Password for Unlocking (Page 119)

## PAUSE\_INPUT\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable pause input.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>

## NUM\_PLAN\_PICKUP\_DIRECT

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the feature number assigned to a BLF for performing call pickup.
<b>Value Range</b>	0–4 digits (0–9, *, #)
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Directed Call Pickup (Page 141)

## 5.3.31 Flexible Key Settings

### FLEX\_BUTTON\_FACILITY\_ACTx

<b>Parameter Name Example</b>	<b>FLEX_BUTTON_FACILITY_ACT1,</b> <b>FLEX_BUTTON_FACILITY_ACT2, ...,</b> <b>FLEX_BUTTON_FACILITY_ACT24</b>
-------------------------------	--

### 5.3.31 Flexible Key Settings

<b>Value Format</b>	STRING
<b>Description</b>	<p>x=1–24 Specifies a particular Facility Action for the flexible key. No facility action will be taken for the button if the string is empty or invalid.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>If this parameter is specified, "FLEX_BUTTON_QUICK_DIALx" should be an empty string.</li> </ul>
<b>Value Range</b>	<p>X_PANASONIC_IPTTEL_LINE, X_PANASONIC_IPTTEL_ONETOUCH, X_PANASONIC_IPTTEL_ACD, X_PANASONIC_IPTTEL_WRAPUP, X_PANASONIC_IPTTEL_BLF, X_PANASONIC_IPTTEL_LINESTATUS, X_PANASONIC_IPTTEL_FORWARD, X_PANASONIC_IPTTEL_PHONEBOOK, X_PANASONIC_IPTTEL_CALLLOG, X_PANASONIC_IPTTEL_PARARING, X_PANASONIC_IPTTEL_HOTELING, X_PANASONIC_IPTTEL_TRANSFER, X_PANASONIC_IPTTEL_BLINDTRANSFER, X_PANASONIC_IPTTEL_CONFERENCE, X_PANASONIC_IPTTEL_DIRECTPICKUP, X_PANASONIC_IPTTEL_CALLPARK, X_PANASONIC_IPTTEL_PARKRETRIEVE</p>
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Type (Page 149)

### FLEX\_BUTTON\_FACILITY\_ARGx

<b>Parameter Name Example</b>	FLEX_BUTTON_FACILITY_ARG1, FLEX_BUTTON_FACILITY_ARG2, ..., FLEX_BUTTON_FACILITY_ARG24
<b>Value Format</b>	STRING
<b>Description</b>	<p>x=1–24 Specifies an optional argument associated with the specified Facility Action for the flexible key.</p>
<b>Value Range</b>	Max. 34 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Parameter (Page 149)

### FLEX\_BUTTON\_LABELx

<b>Parameter Name Example</b>	FLEX_BUTTON_LABEL1, FLEX_BUTTON_LABEL2, ..., FLEX_BUTTON_LABEL24
-------------------------------	---

<b>Value Format</b>	STRING
<b>Description</b>	x=1–24 Specifies the name of flexible key to be displayed on the screen.
<b>Value Range</b>	Max. 20 characters  <b>Note</b> • You can use Unicode characters for this setting.
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Label Name (Page 149)

## FLEX\_BUTTON\_QUICK\_DIALx

<b>Parameter Name Example</b>	FLEX_BUTTON_QUICK_DIAL1, FLEX_BUTTON_QUICK_DIAL2, ..., FLEX_BUTTON_QUICK_DIAL24
<b>Value Format</b>	STRING
<b>Description</b>	x=1–24 Specifies a quick dial destination number to be used for the flexible key.
<b>Value Range</b>	Max. 32 digits (0–9, *, #)
<b>Default Value</b>	Empty string

## LONG\_PRESS\_KEY\_SETTING\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Selects whether to enable or disable the flexible key or DSS key with a long press.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• Y: Enable</li> <li>• N: Disable</li> </ul>
<b>Default Value</b>	Y

## 5.3.32 DSS Key Settings

### DSS\_BUTTON\_FACILITY\_ACTx

<b>Parameter Name Example</b>	DSS_BUTTON_FACILITY_ACT1, DSS_BUTTON_FACILITY_ACT2, ..., DSS_BUTTON_FACILITY_ACT200
<b>Value Format</b>	STRING

### 5.3.32 DSS Key Settings

<b>Description</b>	<p>x=1–200 Specifies a particular Facility Action for the flexible key. No facility action will be taken for the button if the string is empty or invalid.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>If this parameter is specified, "DSS_BUTTON_QUICK_DIALx" should be an empty string.</li> </ul>
<b>Value Range</b>	<p>X_PANASONIC_IPTEL_LINE, X_PANASONIC_IPTEL_ONETOUCH, X_PANASONIC_IPTEL_ACD, X_PANASONIC_IPTEL_WRAPUP, X_PANASONIC_IPTEL_BLF, X_PANASONIC_IPTEL_LINESTATUS, X_PANASONIC_IPTEL_FORWARD, X_PANASONIC_IPTEL_PHONEBOOK, X_PANASONIC_IPTEL_CALLLOG, X_PANASONIC_IPTEL_PARARING, X_PANASONIC_IPTEL_HOTELING, X_PANASONIC_IPTEL_TRANSFER, X_PANASONIC_IPTEL_BLINDTRANSFER, X_PANASONIC_IPTEL_CONFERENCE, X_PANASONIC_IPTEL_DIRECTPICKUP, X_PANASONIC_IPTEL_CALLPARK, X_PANASONIC_IPTEL_PARKRETRIEVE</p>
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Type (Page 156)

### DSS\_BUTTON\_FACILITY\_ARGx

<b>Parameter Name Example</b>	DSS_BUTTON_FACILITY_ARG1, DSS_BUTTON_FACILITY_ARG2, ..., DSS_BUTTON_FACILITY_ARG200
<b>Value Format</b>	STRING
<b>Description</b>	<p>x=1–200 Specifies an optional argument associated with the specified Facility Action for the flexible key.</p>
<b>Value Range</b>	Max. 34 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Parameter (Page 157)

### DSS\_BUTTON\_LABELx

<b>Parameter Name Example</b>	DSS_BUTTON_LABEL1, DSS_BUTTON_LABEL2, ..., DSS_BUTTON_LABEL200
<b>Value Format</b>	STRING



<b>Description</b>	x=1–200 Specifies the name of flexible key to be displayed on the screen.
<b>Value Range</b>	Max. 20 characters  <b>Note</b> • You can use Unicode characters for this setting.
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Label Name (Page 157)

## DSS\_BUTTON\_QUICK\_DIALx

<b>Parameter Name Example</b>	DSS_BUTTON_QUICK_DIAL1, DSS_BUTTON_QUICK_DIAL2, ..., DSS_BUTTON_QUICK_DIAL200
<b>Value Format</b>	STRING
<b>Description</b>	x=1–200 Specifies a quick dial destination number to be used for the flexible key.
<b>Value Range</b>	Max. 32 digits (0–9, *, #)
<b>Default Value</b>	Empty string

## 5.3.33 Tone Settings

### OUTSIDE\_DIAL\_TONE\_FRQ

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the dual-tone frequencies, in hertz, of Second Dial Tone using max. 2 whole numbers separated by a comma.
<b>Value Range</b>	0, 200–2000(Hz) (0=No tone)
<b>Default Value</b>	420

### OUTSIDE\_DIAL\_TONE\_GAIN

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the gain, in decibels, of Second Dial Tone
<b>Value Range</b>	-24–6 (dB)
<b>Default Value</b>	0

### OUTSIDE\_DIAL\_TONE\_RPT

<b>Value Format</b>	INTEGER
---------------------	---------

### 5.3.33 Tone Settings

---

<b>Description</b>	Specifies whether Second Dial Tone is repeated.
<b>Value Range</b>	0: No Repeat 1: Repeat
<b>Default Value</b>	0

### OUTSIDE\_DIAL\_TONE\_TIMING

---

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the pattern, in milliseconds, of Second Dial Tone using Max. 10 whole numbers (off 1, on 1, off 2, on 2...) separated by commas.
<b>Value Range</b>	0–16000 (msec) (0=Continuous)
<b>Default Value</b>	60,0

### CONFIRMATION\_TONE5\_FRQ

---

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the confirmation tone 5 frequencies, in hertz, of confirmation tone 5 using Max. 2 whole numbers separated by a comma.
<b>Value Range</b>	200–2000 Hz (0: no tone)
<b>Default Value</b>	1000

### CONFIRMATION\_TONE5\_GAIN

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the gain, in decibels, of confirmation tone 5.
<b>Value Range</b>	-24–6 (dB)
<b>Default Value</b>	0

### REORDER\_TONE\_ENABLE

---

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable reorder tone.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• <b>Y</b>: Enable</li><li>• <b>N</b>: Disable</li></ul>
<b>Default Value</b>	Y

## TONE\_LEN\_DISCONNECT

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the duration, in seconds, that a disconnect tone will be heard when the other party ends a call and the unit is being used.
<b>Value Range</b>	1–15 (s)
<b>Default Value</b>	3

## DIAL\_TONE1\_FRQ

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the dual-tone frequencies, in hertz, of Dial Tone 1 using 2 whole numbers separated by a comma.
<b>Value Range</b>	0, 200–2000 (0: No tone)
<b>Default Value</b>	350,440
<b>Web User Interface Reference</b>	Tone Frequencies (Page 150)

## DIAL\_TONE1\_GAIN

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the gain, in decibels, of Dial Tone 1.
<b>Value Range</b>	-24–6 (dB)
<b>Default Value</b>	0

## DIAL\_TONE1\_RPT

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies whether Dial Tone 1 is repeated.
<b>Value Range</b>	0–1 – 0: No Repeat – 1: Repeat
<b>Default Value</b>	0

## DIAL\_TONE1\_TIMING

<b>Value Format</b>	Comma-separated Integer
---------------------	-------------------------

### 5.3.33 Tone Settings

---

<b>Description</b>	Specifies the pattern, in milliseconds, of Dial Tone 1 using up to 10 whole numbers (off 1, on 1, off 2, on 2...) separated by commas. <b>Note</b> <ul style="list-style-type: none"><li>It is recommended that you set a value of 60 milliseconds or more for the first value (off 1).</li></ul>
<b>Value Range</b>	0–16000 (msec) (0=Continuous) <b>Note</b> <ul style="list-style-type: none"><li>Avoid setting 1–50 for any of the values.</li></ul>
<b>Default Value</b>	60,0
<b>Web User Interface Reference</b>	Tone Timings (Page 151)

### DIAL\_TONE2\_FRQ

---

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the dual-tone frequencies, in hertz, of Dial Tone 2 using 2 whole numbers separated by a comma.
<b>Value Range</b>	0, 200–2000 (0: No tone)
<b>Default Value</b>	350,440

### DIAL\_TONE2\_GAIN

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the gain, in decibels, of Dial Tone 2.
<b>Value Range</b>	-24–6 (dB)
<b>Default Value</b>	0

### DIAL\_TONE2\_RPT

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies whether Dial Tone 2 is repeated.
<b>Value Range</b>	0–1 – 0: No Repeat – 1: Repeat
<b>Default Value</b>	0

### DIAL\_TONE2\_TIMING

---

<b>Value Format</b>	Comma-separated Integer
---------------------	-------------------------

<b>Description</b>	Specifies the pattern, in milliseconds, of Dial Tone 2 using up to 10 whole numbers (off 1, on 1, off 2, on 2...) separated by commas.  <b>Note</b> <ul style="list-style-type: none"> <li>It is recommended that you set a value of 60 milliseconds or more for the first value (off 1).</li> </ul>
<b>Value Range</b>	0–16000 (0: Infinite time)  <b>Note</b> <ul style="list-style-type: none"> <li>Avoid setting 1–50 for any of the values.</li> </ul>
<b>Default Value</b>	60,0

## DIAL\_TONE4\_FRQ

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the dual-tone frequencies, in hertz, of Dial Tone 4 (stutter dial tones) to notify that a voice mail is waiting, using 2 whole numbers separated by a comma.
<b>Value Range</b>	0, 200–2000 (0: No tone)
<b>Default Value</b>	350,440
<b>Web User Interface Reference</b>	Tone Frequencies (Page 152)

## DIAL\_TONE4\_GAIN

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the gain, in decibels, of Dial Tone 4 (stutter-type dial tone).
<b>Value Range</b>	-24–6 (dB)
<b>Default Value</b>	0

## DIAL\_TONE4\_RPT

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies whether Dial Tone 4 (stutter-type dial tone) is repeated.
<b>Value Range</b>	0–1 – 0: No Repeat – 1: Repeat
<b>Default Value</b>	0

## DIAL\_TONE4\_TIMING

<b>Value Format</b>	Comma-separated Integer
---------------------	-------------------------



## BUSY\_TONE\_TIMING

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the pattern, in milliseconds, of busy tones using up to 10 whole numbers (off 1, on 1, off 2, on 2...) separated by commas.  <b>Note</b> <ul style="list-style-type: none"> <li>It is recommended that you set a value of 60 milliseconds or more for the first value (off 1).</li> </ul>
<b>Value Range</b>	0–16000 (0: Continuous)  <b>Note</b> <ul style="list-style-type: none"> <li>Avoid setting 1–50 for any of the values.</li> </ul>
<b>Default Value</b>	60,500,440
<b>Web User Interface Reference</b>	Tone Timings (Page 151)

## REORDER\_TONE\_FRQ

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the dual-tone frequencies, in hertz, of reorder tones using 2 whole numbers separated by a comma.
<b>Value Range</b>	0, 200–2000 (0: No tone)
<b>Default Value</b>	480,620
<b>Web User Interface Reference</b>	Tone Frequencies (Page 153)

## REORDER\_TONE\_GAIN

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the gain, in decibels, of the reorder tone.
<b>Value Range</b>	-24–6 (dB)
<b>Default Value</b>	0

## REORDER\_TONE\_RPT

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies whether the reorder tone is repeated.
<b>Value Range</b>	0–1 – 0: No Repeat – 1: Repeat
<b>Default Value</b>	1

## REORDER\_TONE\_TIMING

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the pattern, in milliseconds, of reorder tones using up to 10 whole numbers (off 1, on 1, off 2, on 2...) separated by commas.  <b>Note</b> <ul style="list-style-type: none"> <li>It is recommended that you set a value of 60 milliseconds or more for the first value (off 1).</li> </ul>
<b>Value Range</b>	0–16000 (0: Continuous)  <b>Note</b> <ul style="list-style-type: none"> <li>Avoid setting 1–50 for any of the values.</li> </ul>
<b>Default Value</b>	60,250,190
<b>Web User Interface Reference</b>	Tone Timings (Page 153)

## RINGBACK\_TONE\_FRQ

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the dual-tone frequencies, in hertz, of ringback tones using 2 whole numbers separated by a comma.
<b>Value Range</b>	0, 200–2000 (0: No tone)
<b>Default Value</b>	440,480
<b>Web User Interface Reference</b>	Tone Frequencies (Page 152)

## RINGBACK\_TONE\_GAIN

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the gain, in decibels, of the ringback tone.
<b>Value Range</b>	-24–6 (dB)
<b>Default Value</b>	0

## RINGBACK\_TONE\_RPT

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies whether the ringback tone is repeated.
<b>Value Range</b>	0–1 – 0: No Repeat – 1: Repeat
<b>Default Value</b>	1



## RINGBACK\_TONE\_TIMING

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the pattern, in milliseconds, of ringback tones using up to 10 whole numbers (off 1, on 1, off 2, on 2...) separated by commas.  <b>Note</b> <ul style="list-style-type: none"> <li>It is recommended that you set a value of 60 milliseconds or more for the first value (off 1).</li> </ul>
<b>Value Range</b>	0–16000 (0: Continuous)  <b>Note</b> <ul style="list-style-type: none"> <li>Avoid setting 1–50 for any of the values.</li> </ul>
<b>Default Value</b>	60,2000,3940
<b>Web User Interface Reference</b>	Tone Timings (Page 152)

## HOLD\_ALARM\_FRQ

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the dual-tone frequencies, in hertz, of the hold alarm using 2 whole numbers separated by a comma.
<b>Value Range</b>	0, 200–2000 (0: No tone)
<b>Default Value</b>	425

## HOLD\_ALARM\_GAIN

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the gain, in decibels, of the hold alarm.
<b>Value Range</b>	-24–6 (dB)
<b>Default Value</b>	0

## CW\_TONE1\_FRQ

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the dual-tone frequencies, in hertz, of call waiting tone 1 using 2 whole numbers separated by a comma.
<b>Value Range</b>	0, 200–2000 (0: No tone)
<b>Default Value</b>	425

## CW\_TONE1\_GAIN

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the gain, in decibels, of call waiting tone 1.
<b>Value Range</b>	-24–6 (dB)
<b>Default Value</b>	0

## HOLD\_TONE\_FRQ

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the dual-tone frequencies, in hertz, of the hold tone using 2 whole numbers separated by a comma.
<b>Value Range</b>	0, 200–2000 (0: No tone)
<b>Default Value</b>	425

## HOLD\_TONE\_GAIN

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the gain, in decibels, of the hold tone.
<b>Value Range</b>	-24–6 (dB)
<b>Default Value</b>	0

## BELL\_CORE\_PATTERN1\_TIMING

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the cadence, in milliseconds, of pattern ID 1, described in the LSSGR, GR-506-CORE, "Signaling for Analog Interfaces" section 14, using up to 8 whole numbers (on 1, off 1, on 2, off 2...) separated by commas.
<b>Value Range</b>	0–5000 (0: Continuous)  <b>Note</b> <ul style="list-style-type: none"> <li>Avoid setting 1–50 for any of the values.</li> </ul>
<b>Default Value</b>	2000,4000

## BELL\_CORE\_PATTERN2\_TIMING

<b>Value Format</b>	Comma-separated Integer
---------------------	-------------------------

<b>Description</b>	Specifies the cadence, in milliseconds, of pattern ID 2, described in the LSSGR, GR-506-CORE, "Signaling for Analog Interfaces" section 14, using up to 8 whole numbers (on 1, off 1, on 2, off 2...) separated by commas.
<b>Value Range</b>	0–5000 (0: Continuous)  <b>Note</b> <ul style="list-style-type: none"> <li>Avoid setting 1–50 for any of the values.</li> </ul>
<b>Default Value</b>	800,400,800,4000

## BELL\_CORE\_PATTERN3\_TIMING

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the cadence, in milliseconds, of pattern ID 3, described in the LSSGR, GR-506-CORE, "Signaling for Analog Interfaces" section 14, using up to 8 whole numbers (on 1, off 1, on 2, off 2...) separated by commas.
<b>Value Range</b>	0–5000 (0: Continuous)  <b>Note</b> <ul style="list-style-type: none"> <li>Avoid setting 1–50 for any of the values.</li> </ul>
<b>Default Value</b>	400,200,400,200,800,4000

## BELL\_CORE\_PATTERN4\_TIMING

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the cadence, in milliseconds, of pattern ID 4, described in the LSSGR, GR-506-CORE, "Signaling for Analog Interfaces" section 14, using up to 8 whole numbers (on 1, off 1, on 2, off 2...) separated by commas.
<b>Value Range</b>	0–5000 (0: Continuous)  <b>Note</b> <ul style="list-style-type: none"> <li>Avoid setting 1–50 for any of the values.</li> </ul>
<b>Default Value</b>	300,200,1000,200,300,4000

## BELL\_CORE\_PATTERN5\_TIMING

<b>Value Format</b>	Comma-separated Integer
<b>Description</b>	Specifies the cadence, in milliseconds, of pattern ID 5, described in the LSSGR, GR-506-CORE, "Signaling for Analog Interfaces" section 14, using up to 8 whole numbers (on 1, off 1, on 2, off 2...) separated by commas.

### 5.3.34 Call Control Settings

---

<b>Value Range</b>	0–5000 (0: Continuous) <b>Note</b> <ul style="list-style-type: none"><li>• Avoid setting 1–50 for any of the values.</li></ul>
<b>Default Value</b>	500

## 5.3.34 Call Control Settings

### DEFAULT\_LINE\_SELECT

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the line used to make an outgoing call when no line is specified in the dialing operation.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• 1: Line 1</li><li>• 2: Line 2</li><li>• 3: Line 3</li><li>• 4: Line 4</li><li>• 5: Line 5</li><li>• 6: Line 6</li></ul>
<b>Default Value</b>	1
<b>Web User Interface Reference</b>	Default Line for Outgoing (Page 139)

### ANONYMOUS\_CALL\_ENABLE\_n

---

<b>Parameter Name Example</b>	<code>ANONYMOUS_CALL_ENABLE_1</code> , <code>ANONYMOUS_CALL_ENABLE_2</code> , ..., <code>ANONYMOUS_CALL_ENABLE_6</code>
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to make calls without transmitting the phone number to the called party.
<b>Value Range</b>	<ul style="list-style-type: none"><li>• <code>Y</code>: Enable anonymous call</li><li>• <code>N</code>: Disable</li></ul>
<b>Default Value</b>	<code>N</code>
<b>Web User Interface Reference</b>	Enable Anonymous Call (Page 143)

### BLOCK\_ANONYMOUS\_CALL\_ENABLE\_n

---

<b>Parameter Name Example</b>	<code>BLOCK_ANONYMOUS_CALL_ENABLE_1</code> , <code>BLOCK_ANONYMOUS_CALL_ENABLE_2</code> , ..., <code>BLOCK_ANONYMOUS_CALL_ENABLE_6</code>
<b>Value Format</b>	BOOLEAN

<b>Description</b>	Specifies whether to accept or reject the incoming call without the called party's phone number.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable anonymous call block</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable Block Anonymous Call (Page 143)

## HOTLINE\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable the Hot line feature.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable (Page 148)

## HOTLINE\_NUMBER

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the Hot line number.
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Hotline Number (Page 148)

## HOTLINE\_TIM

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies a time after off hook for Hot line.
<b>Value Range</b>	0–10 (s)
<b>Default Value</b>	2
<b>Web User Interface Reference</b>	Hotline Delay (Page 148)

## DISPLAY\_NAME\_n

<b>Parameter Name Example</b>	DISPLAY_NAME_1, DISPLAY_NAME_2, ..., DISPLAY_NAME_6
<b>Value Format</b>	STRING

### 5.3.34 Call Control Settings

---

<b>Description</b>	Specifies the name to display as the caller on the other party's phone when you make a call.
<b>Value Range</b>	Max. 24 characters <b>Note</b> <ul style="list-style-type: none"><li>You can use Unicode characters for this setting.</li></ul>
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Display Name (Page 142)

## VM\_SUBSCRIBE\_ENABLE

---

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to send the SUBSCRIBE request to a voice mail server. <b>Note</b> <ul style="list-style-type: none"><li>Your phone system must support voice mail.</li></ul>
<b>Value Range</b>	<ul style="list-style-type: none"><li>Y (Send the SUBSCRIBE request)</li><li>N (Do not send the SUBSCRIBE request)</li></ul>
<b>Default Value</b>	N
<b>Web User Interface Reference</b>	Send SUBSCRIBE to Voice Mail Server (Page 137)

## VM\_NUMBER\_n

---

<b>Parameter Name Example</b>	VM_NUMBER_1, VM_NUMBER_2, ..., VM_NUMBER_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the phone number used to access the voice mail server. <b>Note</b> <ul style="list-style-type: none"><li>Your phone system must support voice mail.</li></ul>
<b>Value Range</b>	Max. 32 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Voice Mail Access Number (Page 142)

## DIAL\_PLAN\_n

---

<b>Parameter Name Example</b>	DIAL_PLAN_1, DIAL_PLAN_2, ..., DIAL_PLAN_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies a dial format, such as specific phone numbers, that control which numbers can be dialed or how to handle the call when making a call. For details, see <b>6.2 Dial Plan</b> .

<b>Value Range</b>	Max. 1000 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Dial Plan (max 1000 columns) (Page 147)

## DIAL\_PLAN\_NOT\_MATCH\_ENABLE\_n

<b>Parameter Name Example</b>	DIAL_PLAN_NOT_MATCH_ENABLE_1, DIAL_PLAN_NOT_MATCH_ENABLE_2, ..., DIAL_PLAN_NOT_MATCH_ENABLE_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable dial plan filtering so that a call is not made when the dialed number does not match any of the dial formats specified in "DIAL_PLAN_n".
<b>Value Range</b>	<ul style="list-style-type: none"> <li>Y (Enable dial plan filtering)</li> <li>N (Disable dial plan filtering)</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>If set to "Y", the dialed number will not be sent to the line when the number dialed by the user does not match any of the dial formats specified in the dial plan.</li> <li>If set to "N", the dialed number will be sent to the line, even if the number dialed by the user does not match any of the dial formats specified in the dial plan.</li> </ul>
<b>Default Value</b>	N
<b>Web User Interface Reference</b>	Call Even If Dial Plan Does Not Match (Page 147)

## MACRODIGIT\_TIM

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the length of time, in seconds, that the unit waits when a "T" or "t" has been entered in the dial plan.
<b>Value Range</b>	1–15
<b>Default Value</b>	5
<b>Web User Interface Reference</b>	Timer for Dial Plan (Page 138)

## INTERNATIONAL\_ACCESS\_CODE

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the number to be shown in the place of the first "+" symbol when the phone number for incoming international calls contains "+".

### 5.3.34 Call Control Settings

---

<b>Value Range</b>	Max. 8 characters (consisting of 0–9, *, and #) <b>Note</b> <ul style="list-style-type: none"><li>No other characters are allowed.</li></ul>
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	International Call Prefix (Page 139)

## COUNTRY\_CALLING\_CODE

---

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the country/area calling code to be used for comparative purposes when dialing a number from the incoming call log that contains a "+" symbol.
<b>Value Range</b>	Max. 8 characters (consisting of 0–9)
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Country Calling Code (Page 139)

## NATIONAL\_ACCESS\_CODE

---

<b>Value Format</b>	STRING
<b>Description</b>	When dialing a number from the incoming call log that contains a "+" symbol and the country calling code matches, the country calling code is removed and the national access code is added.
<b>Value Range</b>	Max. 8 characters (consisting of 0–9, *, and #)
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	National Access Code (Page 139)

## IDLE\_SOFT\_KEY\_A

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the soft key (A) during IDLE state.
<b>Value Range</b>	<ul style="list-style-type: none"><li>1: Phonebook</li><li>2: Menu</li><li>3: Outgoing Call Log</li><li>4: Incoming Call Log</li><li>5: Redial</li><li>6: Page</li></ul>
<b>Default Value</b>	1
<b>Web User Interface Reference</b>	Soft Key A (Left) (Page 117)



## IDLE\_SOFT\_KEY\_B

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the soft key (B) during IDLE state.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 1: Phonebook</li> <li>• 2: Menu</li> <li>• 3: Outgoing Call Log</li> <li>• 4: Incoming Call Log</li> <li>• 5: Redial</li> <li>• 6: Page</li> </ul>
<b>Default Value</b>	2
<b>Web User Interface Reference</b>	Soft Key B (Center) (Page 118)

## IDLE\_SOFT\_KEY\_C

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the soft key (C) during IDLE state.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 1: Phonebook</li> <li>• 2: Menu</li> <li>• 3: Outgoing Call Log</li> <li>• 4: Incoming Call Log</li> <li>• 5: Redial</li> <li>• 6: Page</li> </ul>
<b>Default Value</b>	3
<b>Web User Interface Reference</b>	Soft Key C (Right) (Page 118)

## ADMIN\_ABILITY\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	<p>Specifies admin rights.</p> <p><b>Note</b></p> <p>If you attempt to configure System Settings without enabling admin rights, an error will occur and configuration will not be possible.</p>
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Admin</li> <li>• <b>N</b>: Non Admin</li> </ul>
<b>Default Value</b>	<b>Y</b>
<b>Web User Interface Reference</b>	Enable Admin Ability (Page 118)

## EMERGENCY\_CALLx

<b>Parameter Name Example</b>	<b>EMERGENCY_CALL1, EMERGENCY_CALL2, ..., EMERGENCY_CALL5</b>
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the emergency number. (Up to 5 emergency numbers)
<b>Value Range</b>	Max. 32 characters (except &, ", ', : , ; , < , >)
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	1–5 (Page 141)

## CALL\_REJECTIONx

<b>Parameter Name Example</b>	<b>CALL_REJECTION1, CALL_REJECTION2, ..., CALL_REJECTION30</b>
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the rejected number per line. (Up to 30 rejected numbers)
<b>Value Range</b>	Max. 32 characters (except &, ", ', : , ; , < , >)
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	1–30 (Page 141)

## CLICKTO\_ENABLE\_n

<b>Parameter Name Example</b>	<b>CLICKTO_ENABLE_1, CLICKTO_ENABLE_2, ..., CLICKTO_ENABLE_6</b>
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable or disable Click to Dial/Answer/Hold functions.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable Click to Call (Page 146)

## CALLPARK\_NOTIFICATION\_ENABLE\_n

<b>Parameter Name Example</b>	<b>CALLPARK_NOTIFICATION_ENABLE_1, CALLPARK_NOTIFICATION_ENABLE_2, ..., CALLPARK_NOTIFICATION_ENABLE_6</b>
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to respond to call park notifications from the server.

<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable Call Park Notification (Page 146)

## SHARED\_CALL\_ENABLE\_n

<b>Parameter Name Example</b>	SHARED_CALL_ENABLE_1, SHARED_CALL_ENABLE_2, ..., SHARED_CALL_ENABLE_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	<p>Specifies whether to enable the Shared Call feature of the SIP server, which is used to share one line among the units.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• Availability depends on your phone system.</li> </ul>
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b> (Enable shared call)</li> <li>• <b>N</b> (Disable shared call)</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• If set to "Y", the SIP server will control the line by using a shared-call signaling method.</li> <li>• If set to "N", the SIP server will control the line by using a standard signaling method.</li> </ul>
<b>Default Value</b>	<b>N</b>
<b>Web User Interface Reference</b>	Enable Shared Call (Page 145)

## FWD\_DND\_SYNCHRO\_ENABLE\_n

<b>Parameter Name Example</b>	FWD_DND_SYNCHRO_ENABLE_1, FWD_DND_SYNCHRO_ENABLE_2, ..., FWD_DND_SYNCHRO_ENABLE_6
<b>Value Format</b>	BOOLEAN
<b>Description</b>	<p>Specifies whether to synchronize the Do Not Disturb and Call Forward settings, configured via the Web user interface or phone user interface, between the unit and the portal server that is provided by your phone system dealer/service provider.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• Even if you specify "Y", this feature may not function properly if your phone system does not support it. Before you configure this setting, consult your phone system dealer/service provider.</li> </ul>
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b> (Enable Do Not Disturb/Call Forward synchronization)</li> <li>• <b>N</b> (Disable Do Not Disturb/Call Forward synchronization)</li> </ul>
<b>Default Value</b>	<b>N</b>

<b>Web User Interface Reference</b>	Enable Key Synchronization (Enable Key Synchronisation) (Page 145)
-------------------------------------	--

## MOH\_SERVER\_URI\_n

<b>Parameter Name Example</b>	MOH_SERVER_URI_1, MOH_SERVER_URI_2, ..., MOH_SERVER_URI_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies MoH server URI for each line.
<b>Value Range</b>	Max. 384 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	MoH Server URI (Page 146)

## FWD\_DND\_CONTROL\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether to enable the telephone for FWD/DND.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable</li> <li>• <b>N</b>: Disable</li> </ul>
<b>Default Value</b>	<b>Y</b>

## FWD\_DND\_SYNCHRO\_MODE

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the mode of FWD/DND synchronizing with server.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• 1: as feature event</li> <li>• 2: Panasonic original</li> <li>• 3: Entel</li> </ul>
<b>Default Value</b>	1

## HOLD\_AND\_CALL\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether making new call after holding the call or not.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b>: Enable (Hold and Call)</li> <li>• <b>N</b>: Disable (Hold)</li> </ul>
<b>Default Value</b>	<b>N</b>

## AUTO\_CALL\_HOLD

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether calls are disconnected or held when an other line is selected while having a conversation.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b> (Enable Auto Call Hold)</li> <li>• <b>N</b> (Disable Auto Call Hold)</li> </ul>
<b>Default Value</b>	<b>Y</b>

## SIP\_RESPONSE\_CODE\_DND

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the response code when a call is received in Do Not Disturb mode.
<b>Value Range</b>	400–699
<b>Default Value</b>	403

## SIP\_RESPONSE\_CODE\_CALL\_REJECT

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the response code when a call is rejected.
<b>Value Range</b>	400–699
<b>Default Value</b>	603

## CW\_ENABLE\_n

<b>Parameter Name Example</b>	<b>CW_ENABLE_1, CW_ENABLE_2, ..., CW_ENABLE_6</b>
<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether automatic call waiting is enabled.
<b>Value Range</b>	<ul style="list-style-type: none"> <li>• <b>Y</b> (Enable Call Waiting)</li> <li>• <b>N</b> (Disable Call Waiting)</li> </ul>
<b>Default Value</b>	<b>Y</b>
<b>Web User Interface Reference</b>	Enable Call Waiting (Page 143)

## RETURN\_VOL\_SET\_DEFAULT\_ENABLE

<b>Value Format</b>	BOOLEAN
<b>Description</b>	Specifies whether the volume is returned to its default setting after each call.

### 5.3.35 Logging Settings

---

<b>Value Range</b>	<ul style="list-style-type: none"><li>• <math>\times</math> (Volume returns to the default setting after each call)</li><li>• <math>\mathbb{N}</math> (Volume does not change after each call)</li></ul>
<b>Default Value</b>	$\mathbb{N}$

### CONFERENCE\_SERVER\_URI

---

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URI for a conference server, which consists of "sip:", a user part, the "@" symbol, and a host part, for example, "sip:conference@example.com".  <b>Note</b> <ul style="list-style-type: none"><li>• Availability depends on your phone system.</li></ul>
<b>Value Range</b>	Max. 256 characters (except ", &, ', :, ;, <, >, and space)
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Conference Server URI (Page 138)

### RESOURCELIST\_URI\_n

---

<b>Parameter Name Example</b>	RESOURCELIST_URI_1, RESOURCELIST_URI_2, ..., RESOURCELIST_URI_6
<b>Value Format</b>	STRING
<b>Description</b>	Specifies the URI for the resource list, which consists of "sip:", a user part, the "@" symbol, and a host part.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string
<b>Web User Interface Reference</b>	Resource List URI (Page 146)

### 5.3.35 Logging Settings

#### SYSLOG\_ADDR

---

<b>Value Format</b>	STRING
<b>Description</b>	Specifies the IP address or FQDN of Syslog server.
<b>Value Range</b>	Max. 256 characters
<b>Default Value</b>	Empty string

#### SYSLOG\_PORT

---

<b>Value Format</b>	INTEGER
---------------------	---------

<b>Description</b>	Specifies the port of Syslog server.
<b>Value Range</b>	1–65535
<b>Default Value</b>	514

## LOGGING\_LEVEL\_DNS

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the log level of DNS.
<b>Value Range</b>	0–6
<b>Default Value</b>	0

## LOGGING\_LEVEL\_NW1

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the log level of SNTP.
<b>Value Range</b>	0–6
<b>Default Value</b>	0

## LOGGING\_LEVEL\_FILE

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the log level of FILE downloading.
<b>Value Range</b>	0–6
<b>Default Value</b>	0

## LOGGING\_LEVEL\_SIP

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the log level of SIP.
<b>Value Range</b>	0–6
<b>Default Value</b>	0

## LOGGING\_LEVEL\_TR069

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the log level of TR-069.
<b>Value Range</b>	0–6

### 5.3.35 Logging Settings

---

<b>Default Value</b>	0
----------------------	---

### LOGGING\_LEVEL\_STUN

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the log level of STUN.
<b>Value Range</b>	0–6
<b>Default Value</b>	0

### LOGGING\_LEVEL\_NW2

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the log level of Xsi, XML, XMPP, LDAP.
<b>Value Range</b>	0–6
<b>Default Value</b>	0

### LOGGING\_LEVEL\_CFGPARSE

---

<b>Value Format</b>	INTEGER
<b>Description</b>	Specifies the log level of configuration parse.
<b>Value Range</b>	0–6
<b>Default Value</b>	0



---

## **Section 6**

# ***Useful Telephone Functions***

*This section explains phone number settings, dial plan settings, the phonebook import/export function, the Broadsoft XSI function, the BroadCloud (Presence) function and Pairing (Parallel Mode).*

# 6.1 Phonebook Import and Export

This section explains how to import and export phonebook data. Phonebook data of the unit includes names and phone numbers.

Phonebook data on the unit can be exported, edited with editor tools, and imported again. In addition, phonebook data created with other software can be imported into the unit.

You can use the phonebook import and export functions as follows.

- A. Phonebook data
- B. Microsoft Excel®
- C. Microsoft Outlook®

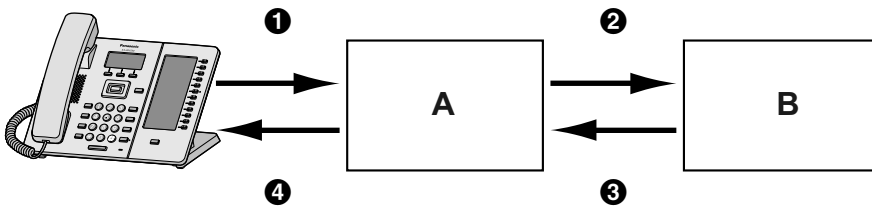
### Note

It takes approximately 7 minutes to import a phonebook that contains 500 entries.

### Editing Phonebook Data on a PC

The phonebook data stored on the unit can be edited using a program such as Microsoft Excel spreadsheet software. For details about the operation, see **6.1.2 Editing with Microsoft Excel**.

You can export the phonebook data to the PC, edit the exported file using appropriate software, and then import it into the unit.

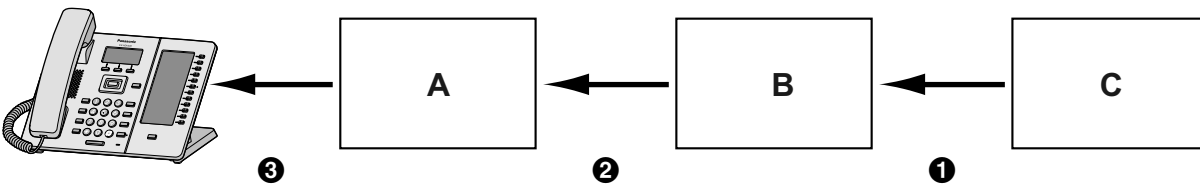


### Importing Address Book Data from a PC

You can import address book data stored in programs, such as Microsoft Outlook messaging and collaboration client, into the unit.

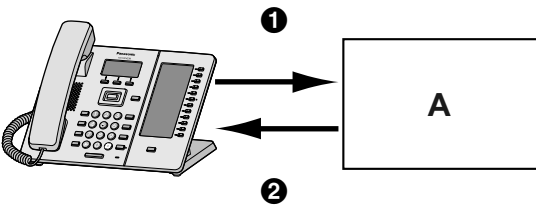
First, export address book data from the e-mail software to a program such as Microsoft Excel, edit it as necessary, and then import the exported data into the unit.

For details about the operation, see **6.1.3 Exporting Data from Microsoft Outlook**.



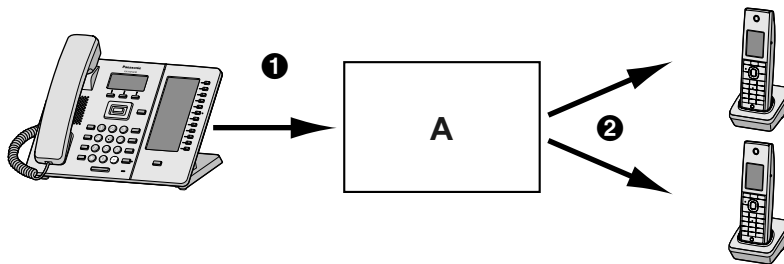
### Backing up Phonebook Data

You can export the phonebook data from the unit to a PC and keep the file as a backup in case of data loss or for use when exchanging the unit.

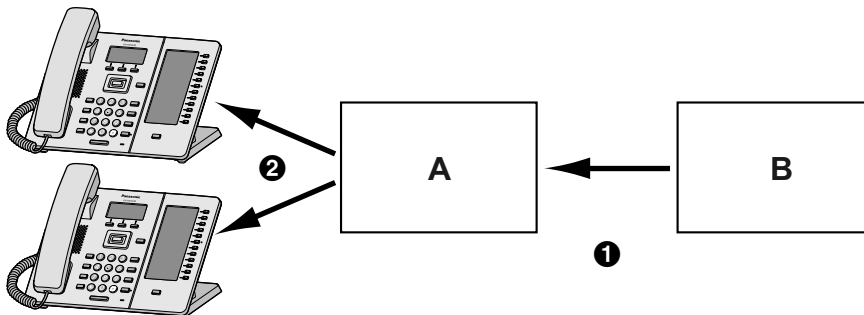


### Importing the Same Phonebook Data to other Units

You can export the phonebook data created on a unit to a PC, and then import it into other units.



You can also import phonebook data created on a PC to other units.



## Import/Export File Format

The file format used for importing and exporting the phonebook data is "TSV". When importing or exporting using Microsoft Excel, "CSV (Comma-separated Value)" is generally used as the file format.

A phonebook entry in the unit has 9 fields. An entry in the phonebook data is represented in text as "record ID <TAB> name <TAB> reserved <TAB> phone number <TAB> phone number <TAB> phone number <TAB> phone number <TAB> reserved <line break>".

The text data can be edited using any text editing software that supports UTF-16 encoding with a BOM and little endian byte ordering. When you save the text file, it must be saved using the same format, or the text might become garbled.

### Phonebook Data in Text Format

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1		Aaron MacDowel				501		1234001								
2		Barbara Nicolls				502		1234002								
3		Carl O'Brien				503		1234003								
4		Dorothy Parker						1234004								
...		...				...		...								
...		...				...		...								

- 1 Record ID (Unique ID: 1–500)
- 2 Tab
- 3 Name (up to 24 characters)
- 4 Tab
- 5 Reserved (up to 24 characters)
- 6 Tab
- 7 Phone number (up to 32 digits)
- 8 Tab
- 9 Phone number (up to 32 digits)
- 10 Tab
- 11 Phone number (up to 32 digits)
- 12 Tab
- 13 Phone number (up to 32 digits)
- 14 Tab
- 15 Phone number (up to 32 digits)
- 16 Tab
- 17 Reserved

## 6.1.1 Import/Export Operation

The following procedures explain how to import phonebook data to units, and how to export phonebook data from units to a PC through the Web user interface.

For details about the settings, see [4.6.6 Import Phonebook](#) or [4.6.7 Export Phonebook](#).

#### To import phonebook data

1. Click the **[Telephone]** tab, and then click **[Import Phonebook]**.
2. In **[File Name]**, enter the full path to the file that you want to import, or click **Browse** to select the phonebook data file that you want to import.
3. Click **[Import]**.

#### To export the phonebook data

1. Click the **[Telephone]** tab, and then click **[Export Phonebook]**.
2. Click **[Export]**.

3. On the "Now Processing File Data" screen, click the text "HERE" in the displayed message, or wait until **File Download** window appears.

**Note**

- Depending on the security settings of your Web browser, pop-up menus might be blocked. If the file cannot be exported successfully, try the export operation again or change the security settings of your Web browser.

4. Click **Save** on **File Download** window.
5. On the **Save As** window, select a folder to save the exported phonebook data to, enter the file name in **File name**, select **TSV File** for **Save as type**, and click **Save**.  
If the file is downloaded successfully, the **Download complete** window appears.
6. Click **Close**.
7. To exit the operation, click the text "HERE" in the displayed message.  
The **[Export Phonebook]** screen returns.

**Note**

- Make sure that the import source or unit is in standby mode.
- The import source or unit must be specified at the time of import/export. The imported data is added to the existing phonebook data.
  - If the existing phonebook data has an entry with the same record ID as an imported entry, the entry is overwritten with the imported entry.
  - If the existing phonebook data has an entry with no record ID, it will be left in the phonebook.
  - If the imported phonebook data has an entry with no record ID, the imported entry is added as a new entry unless an existing entry with the same name and phone number is found.

Phonebook entries that are added via the unit are not assigned record IDs. Therefore, it is recommended to export phonebook data from the unit, assign record IDs manually and then re-import them. Doing so can help manage phonebook data.
- The phonebook for a unit has the following limitations:
  - A maximum of 500 phonebook entries can be stored in the unit. If the unit already has phonebook data, it accepts up to the 500th entry, including the existing entries. The rest of the entries will not be imported, and the message "**Memory Full**" is displayed on the unit.
  - The name can contain up to 24 characters.
  - The phone number can contain up to 32 digits.
  - Phonebook entries exceeding the characters or digits limits cannot be imported properly.
- If the export is interrupted by an operation on the unit, only the data that has been successfully exported before the interruption is exported to a file.

## 6.1.2 Editing with Microsoft Excel

You can edit exported phonebook data on a PC with software such as Microsoft Excel. You can then import the phonebook data into units.

### To open the phonebook data on a PC

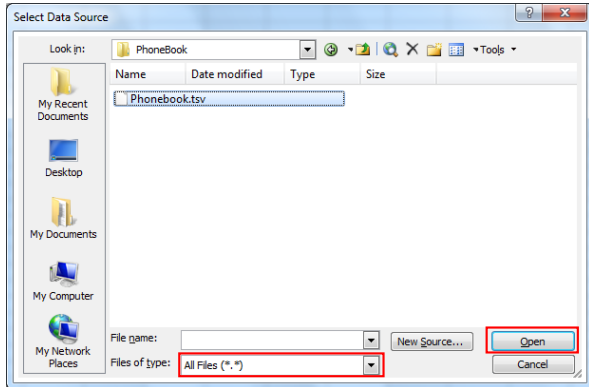
1. Open Microsoft Excel.
2. Click **Office Button**, and then **Open**.

**Note**

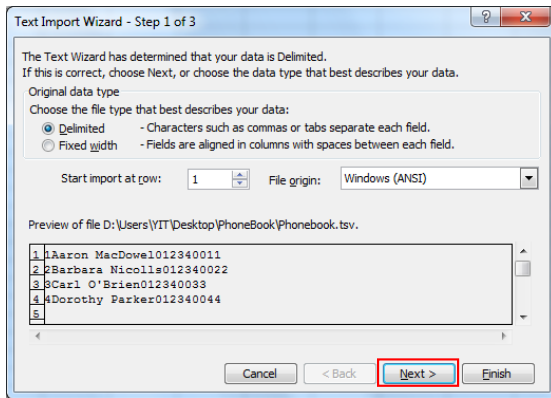
- Make sure to open a TSV file in this procedure. If you change the extension of a TSV file to ".csv", the file will open by simply double-clicking it. However, the character encoding of the file might not be recognized properly, resulting in garbled characters, or the phone numbers might be recognized as numbers, resulting in data alteration.

## 6.1.2 Editing with Microsoft Excel

3. Select **All Files** for the file type, select the exported phonebook data file, and click **Open**.



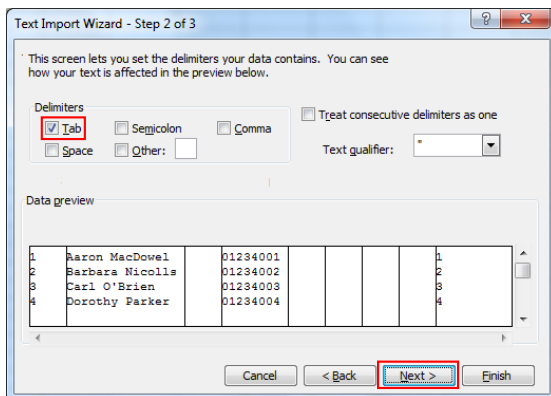
4. On the **Text Import Wizard - Step 1 of 3** window, click **Next**.



### Note

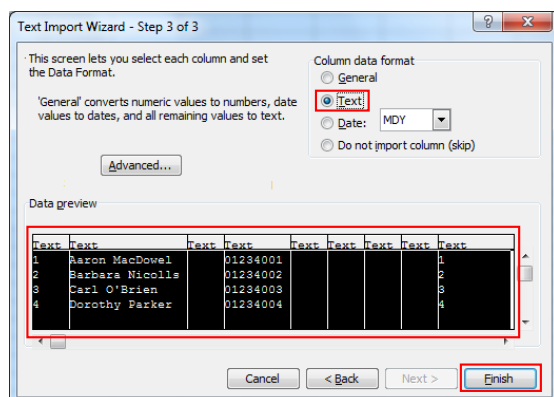
- Regardless of what is selected for **File origin**, the file will be processed normally if the format is appropriate.

5. On the **Text Import Wizard - Step 2 of 3** window, select **Tab** for **Delimiters**, and then click **Next**.



- On the **Text Import Wizard - Step 3 of 3** window, select all columns in **Data preview**, select **Text** in **Column data format**, and then click **Finish**.

The TSV file will be opened.



#### Note

- Phone numbers must be treated as text strings. Otherwise, a "0" at the beginning of a phone number might disappear when exported.

#### To save the phonebook data for importing to the unit

- After editing the phonebook entries, click **Office Button**, and then **Save As**.
- Enter a file name in **File name**, and select **Unicode Text** in **Save as type**.  
The file will be saved in UTF-16 little endian with a BOM. Fields will be separated by tabs.
- Click **Save**.  
A message warning you about file compatibility will be displayed.
- Click **Yes**.  
The file will be saved as a Unicode text file, with the fields separated by tabs.

#### Note

- The procedure may vary depending on the software version of Microsoft Excel. Therefore, files exported and imported between the unit and Microsoft Excel are not always compatible with each other.

## 6.1.3 Exporting Data from Microsoft Outlook

You can export address book data stored in programs such as Microsoft Outlook, and then edit the exported data with a program such as Microsoft Excel in order to import it to the unit.

#### To export the Microsoft Outlook address book data

- In Microsoft Outlook, click **File**, and then click **Import and Export**.
- Select **Export to a file**, and click **Next**.
- Select **Tab Separated Values (Windows)**, and click **Next**.
- Select **Contacts**, and click **Next**.
- Click **Browse**, select a folder, and then enter the file name to export the data to.
- Click **OK**.
- On the **Export to a File** window, click **Next**.
- Click **Map Custom Fields**.
- Clear all items in the **To** list by clicking **Clear Map**. Then, drag only **Last Name** and **Business Phone** from the **From** list to the **To** list, and click **OK**.

10. On the **Export to a File** window, click **Finish**.  
The data will be exported.

### Note

- You can export data from Microsoft Outlook Express by using a similar procedure. It is also possible to export data from other applications that are compatible with Microsoft Excel.
- You can open the exported file in Microsoft Excel, and then import it to the unit. For details, see **6.1.2 Editing with Microsoft Excel**.
- First and middle names are not exported using this procedure. You can export all necessary items and edit the entry before importing them to the unit.
- In the file exported from Microsoft Outlook, fields are separated by tabs and encoded using the default character encoding for your operating system.

## 6.2 Dial Plan

---

The dial plan settings control how numbers dialed by the user are transmitted over the network. Dial plan settings can be configured on a per-line basis. These settings can be programmed either through the Web user interface (→ see **4.6.2.2 Dial Plan**) or by configuration file programming (→ see **5.3.34 Call Control Settings**).

### 6.2.1 Dial Plan Settings

#### To set Dial Plan

1. In the Web user interface, click the **[Telephone]** tab, and then click **[Call Control [Line 1]–[Line x]]**.
2. In **[Dial Plan]**, enter the desired dial format.  
The dial plan settings can be configured for each line separately.  
For details about available characters for the dial format, see **Available Values for the Dial Plan Field** in this section.
3. Select **[Yes]** or **[No]** for **[Call Even If Dial Plan Does Not Match]**.
  - If you select **[Yes]**, the call will be made even if the user dials a phone number that does not match the dial format in **[Dial Plan]**.
  - If you select **[No]**, the call will be made only if the user dials a phone number that matches the dial format in **[Dial Plan]**.

### Note

- For details about configuring these settings by configuration file programming, see "DIAL\_PLAN\_n" and "DIAL\_PLAN\_NOT\_MATCH\_ENABLE\_n" in **5.3.34 Call Control Settings**.

### Available Values for the Dial Plan Field

---

The following table explains which characters you can use in the dial format, and what the characters mean.

Element	Available Value	Description
String	0–9, [, -, ], <, :, >, *, #, !, S, s, T, t, X, x, .,  , +	You can enter dial plan descriptions using a combination of the characters listed as available values.
Digit	0–9, *, #, +	<b>Example: "123"</b> If the dialed phone number is "123", the call is made immediately.



Element	Available Value	Description
Wildcard	X, x	<b>Example: "12xxxxx"</b> If the dialed phone number is "12" followed by any 5-digit number, the call is made immediately.
Range	[ ]	<b>Example: "[123]"</b> If the dialed phone number is either one of "1", "2", or "3", the call is made immediately.
Subrange	-	<b>Example: "[1-5]"</b> If the dialed phone number is "1", "2", "3", "4", or "5", the call is made immediately. <ul style="list-style-type: none"> <li>A subrange is only valid for single-digit numbers. For example, "[4-9]" is valid, but "[12-21]" is invalid.</li> </ul>
Repeat	.	<b>Example: "1."</b> If the dialed phone number is "1" followed by zero or more "1"s (e.g., "11", "111"), the call is made.
Substitution	<(before):(after)>	<b>Example: "&lt;101:9999&gt;"</b> If the dialed phone number is "101", "101" is replaced by "9999", and then the call is made immediately.
Timer	S, s (second)	<b>Example: "1x.S2"</b> If the dialed phone number begins with "1", the call is made after a lapse of 2 seconds. <ul style="list-style-type: none"> <li>The number (0–9) followed by "S" or "s" shows the duration in seconds until the call is made.</li> </ul>
Macro Timer	T, t	<b>Example: "1x.T"</b> If the dialed phone number begins with "1", the call is made after a lapse of "T" seconds. <ul style="list-style-type: none"> <li>The value of "T" or "t" can be configured through the Web user interface (→ see <b>[Timer for Dial Plan]</b> in <b>4.6.1.1 Call Control</b>).</li> </ul>
Reject	!	<b>Example: "123xxx!"</b> If the dialed phone number is "123" followed by 3 digits, the call is not made.
Alternation		<b>Example: "1xxxx 2xxx"</b> If the dialed phone number is "1" followed by 4 digits, or "2" followed by 3 digits, the call is made immediately. You can use this element to specify multiple numbers.
Comma	,	<b>Example: "9,xxxxxxxxxx.T"</b> If 9 is dialed, the second dial tone is heard, and then 11 digits are dialed, the call is made after waiting "T" seconds. * The dialing will include the initially dialed "9".

**Note**

- You can enter up to 1000 characters in **[Dial Plan]**.
- You can assign up to 100 dial plans separated by "|" in **[Dial Plan]**.
- You can assign up to 32 digits per dial plan in **[Dial Plan]**.
- You can assign up to 10 substitutions in **[Dial Plan]**.
- After the user completes dialing, the unit immediately sends all the dialed digits if **[Call Even If Dial Plan Does Not Match]** is set to **[Yes]** in the Web user interface or if

## 6.3 Flexible Keys

---

"DIAL\_PLAN\_NOT\_MATCH\_ENABLE\_n" is set to "N" in a configuration file. The unit recognizes the end of dialing as follows:

- The inter-digit timer expires (→ see **[Inter-digit Timeout]** in **4.6.1.1 Call Control** in the Web user interface or "INTDIGIT\_TIM" in **5.3.30 Telephone Settings** in the configuration file).
- The user presses **[ENTER]** or the # key.
- The call is initiated after going off-hook (pre-dial).

### Dial Plan Example

---

The following example shows dial plans containing character sequences separated by "|".

Example: "[2346789]11|01[2-9]x.[2-9]xxxxxxxx"

#### Complete Match:

Example: "[2346789]11|01[2-9]x.[2-9]xxxxxxxx"

- If the dialed phone number is "211", "911" and so on, the call is made immediately.

Example: "[2346789]11|01[2-9]x.[2-9]xxxxxxxx"

- If the dialed phone number is "2123456789", "5987654321" and so on, the call is made immediately.

#### Partial Match (when the dial plan contains "."):

Example: "[2346789]11|01[2-9]x.[2-9]xxxxxxxx"

- If the dialed phone number is "01254", "012556" and so on, the call is made after the inter-digit timer expires.

#### Partial Match (when the dial plan does not contain "."):

Example: "[2346789]11|01[2-9]x.[2-9]xxxxxxxx"

- If the dialed phone number is "21", "91" and so on when **[Call Even If Dial Plan Does Not Match]** is set to **[Yes]**, the call is made after the inter-digit timer expires.
- If the dialed phone number is "21", "91" and so on when **[Call Even If Dial Plan Does Not Match]** is set to **[No]**, the call is denied after the inter-digit timer expires.

Example: "[2346789]11|01[2-9]x.[2-9]xxxxxxxx"

- If the dialed phone number is "21234567", "598765432" and so on when **[Call Even If Dial Plan Does Not Match]** is set to **[Yes]**, the call is made after the inter-digit timer expires.
- If the dialed phone number is "21234567", "598765432" and so on when **[Call Even If Dial Plan Does Not Match]** is set to **[No]**, the call is denied after the inter-digit timer expires.

#### No Match:

Example: "[2346789]11|01[2-9]x.[2-9]xxxxxxxx"

- If the dialed phone number is "0011", "1011" and so on when **[Call Even If Dial Plan Does Not Match]** is set to **[Yes]**, the call is made after the inter-digit timer expires.
- If the dialed phone number is "0011", "1011" and so on when **[Call Even If Dial Plan Does Not Match]** is set to **[No]**, the call is denied.

## 6.3 Flexible Keys

---

You can customize the flexible keys on the unit. They can then be used to make or receive outside calls or as feature buttons (function keys). These settings can be programmed either through the Web user interface (→ see **4.6.4 Flexible Key Settings (No. 1–24)** and **4.6.8 DSS Console**) or by configuration file programming (→ see **5.3.31 Flexible Key Settings** and **5.3.32 DSS Key Settings**).

The following types of flexible keys are available:

Button	Description	Lamp Indication
One Touch Dial	Used to dial a previously set phone number with one touch.	–
BLF (Busy Lamp Field)	<p>Used to show the current status of another extension, call the extension and transfer calls to it.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>It may be necessary to specify the Resource List URI to use this feature, depending on your phone system (→ see <b>[Resource List URI]</b> in <b>4.6.2.1 Call Features</b> in the Web user interface or "<b>RESOURCELIST_URI_n</b>" in <b>5.3.34 Call Control Settings</b> in the configuration file).</li> <li>Specify the number assigned to a BLF for performing call pickup (→ see <b>[Directed Call Pickup]</b> in <b>4.6.1.1 Call Control</b> in the Web user interface or "<b>NUM_PLAN_PICKUP_DIRECT</b>" in <b>5.3.30 Telephone Settings</b> in the configuration file).</li> </ul>	<p><b>Off:</b> The BLF extension is idle.  <b>Red on:</b> A corresponding BLF extension is using the line.  <b>Flashing red rapidly:</b> The BLF extension is receiving an incoming call.</p>
Line	Used to seize a line in order to make or receive a call. The LED of the function key indicates the status of the line.	<p><b>Off:</b> The line is idle.  <b>Blue on:</b> The line is on a call.  <b>Flashing blue slowly:</b> A call is on hold.  <b>Flashing blue rapidly:</b> A call (including Hold Recall) is being received to the line (or a shared line).  <b>Red on:</b> A shared line is in use or a call is on private hold at another unit.  <b>Flashing red slowly:</b> A shared line is on hold at another unit.</p>
ACD <sup>1</sup>	<p>Used to log in or log out of a group when ACD (Automatic Call Distribution) is enabled.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>It is necessary to set the ACD feature to enable (→ see <b>[Enable ACD]</b> in <b>4.3.10 ACD Settings [Line1]–[Line6]</b> in the Web user interface or "<b>ACD_ENABLE_n</b>" in <b>5.3.14 Call Center Settings</b> in the configuration file).</li> </ul>	<p><b>Off:</b> Logged in  <b>Red on:</b> Logged out</p>

## 6.3 Flexible Keys

Button	Description	Lamp Indication
Wrap Up <sup>1</sup>	<p>The Wrap Up button alternates the setting of Wrap Up mode, Not Ready mode or Ready mode for incoming calls.</p> <p>In Wrap Up mode/Not Ready mode for incoming calls, incoming calls will not be received through the ACD (Automatic Call Distribution) group.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>It is necessary to set the ACD feature to enable (→ see <b>[Enable ACD]</b> in <b>4.3.10 ACD Settings [Line1]–[Line6]</b> in the Web user interface or "ACD_ENABLE_n" in <b>5.3.14 Call Center Settings</b> in the configuration file).</li> </ul>	<p><b>Off:</b> Ready mode for incoming calls  <b>Red on:</b> Unavailable  <b>Flashing red slowly:</b> Wrap Up</p>
Line Status	Used to confirm the status of each line. This allows the function key to work as a Line key such as seizing a line in order to make or receive a call.	–
Call Forward	Used to forward incoming calls to the assigned extension in the key.	–
Phonebook	Used to open the phonebook.	–
Call History	Used to open the incoming/outgoing call log.	–
Simultaneous Ring <sup>1</sup>	<p>Enables parallel ringing. Up to 10 locations can be specified to ring simultaneously when you receive a call.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>It is necessary to set the XSI feature to enable (→ see <b>[Enable Xtended Service]</b> and <b>[Server Address]</b> in <b>4.3.7 Xtended Service Settings</b> in the Web user interface or "XSI_ENABLE" and "XSI_SERVER" in <b>5.3.11 XSI Settings</b> in the configuration file).</li> </ul>	<p><b>Off:</b> Simultaneous Ring off  <b>Blue on:</b> Simultaneous Ring on</p>
Hoteling (Hospitality) <sup>1</sup>	<p>Used to log in/log out of the Call Center Hoteling Event.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>It is necessary to set the Hoteling (Hospitality) feature to enable (→ see <b>[Enable Call Center]</b> and <b>[Hoteling Event]</b> in <b>4.3.11 Call Center Settings [Line1]–[Line6]</b> in the Web user interface or "CALL_CENTER_ENABLE_n" and "CC_HOTELING_EVENT_n" in <b>5.3.14 Call Center Settings</b> in the configuration file).</li> </ul>	–

Button	Description	Lamp Indication
Transfer	Used to transfer a call to the assigned extension in the key with confirmation, during a conversation.	–
Blind Transfer	Used to transfer a call to the assigned extension in the key without confirmation, during a conversation.	–
Conference	Used to establish a multiple-party conversation (conference).	–
Directed Call Pickup	Used to answer an incoming call arriving at the specified telephone number.	–
Call Park <sup>*1</sup>	Used to transfer a call to Call Parking.	–
Call Park Retrieve <sup>*1</sup>	Used to retrieve a parked call (Call Parking).	–

<sup>\*1</sup> This is an optional feature and may not be supported on your phone system.

## 6.3.1 Settings using Web User Interface Programming

### To set Flexible Keys

1. In the Web user interface, click the **[Telephone]** tab, and then click **[Flexible Key Settings]**.
2. Enter settings as described in the following table.

When it is necessary to set both parameter 1 and parameter 2, enter a comma between the values.

Button	Parameter 1		Parameter 2	
	Description	Value	Description	Value
One Touch Dial	Phone Number	Up to 32 digits	Line No.	1–6
BLF (Busy Lamp Field) <sup>*1</sup>	Phone Number	Up to 32 digits	Line No.	1–6
Line	Line No.	1–6	–	–
ACD	Line No.	1–6	–	–
Wrap Up	Line No.	1–6	–	–
Line Status	–	–	–	–
Call Forward	Phone Number	Up to 32 digits	–	–
Phonebook	Classification	<ul style="list-style-type: none"> <li>• 0: Local &amp; Remote</li> <li>• 1: Local Phonebook</li> <li>• 2: Remote Phonebook</li> </ul>	Category	1–9

### 6.3.1 Settings using Web User Interface Programming

Button	Parameter 1		Parameter 2	
	Description	Value	Description	Value
Call History	Classification	<ul style="list-style-type: none"> <li>• 0: Call History</li> <li>• 1: Missed Calls</li> <li>• 2: Incoming Calls</li> <li>• 3: Outgoing Calls</li> </ul>	–	–
Simultaneous Ring	Line No.	1–6	–	–
Hoteling (Hospitality)	–	–	–	–
Transfer	Phone Number	Up to 32 digits	–	–
Blind Transfer	Phone Number	Up to 32 digits	–	–
Conference	Phone Number	Up to 32 digits	–	–
Directed Call Pickup	Phone Number	Up to 32 digits	Line No.	1–6
Call Park	Call parking number <sup>*2</sup>	Up to 16 digits	–	–
Call Park Retrieve	Park retrieve number <sup>*2</sup>	Up to 16 digits	Line No.	1–6

<sup>\*1</sup> More than 48 BLF keys can be programmed, but LED status indication is available only up to 48 keys.

<sup>\*2</sup> Values may vary depending on your phone system dealer/service provider.

**[Setting Example]**

The following screen shows an example of setting flexible keys.

**Panasonic**  
KX-HDV230

Status | Network | System | VoIP | **Telephone** | Maintenance

**Flexible Key Settings**

Web Port Close

**Telephone**

- Call Control
  - Line 1
  - Line 2
  - Line 3
  - Line 4
  - Line 5
  - Line 6
- Hotline Settings
- Flexible Key Settings**
- Tone Settings
- Import Phonebook
- Export Phonebook

No.	Type	Parameter	Label Name
1	ACD	6	ACD6
2	BLF	9876543210,1	301
3	One Touch Dial	0123456789	Home
4	ACD	5	ACD5
5	Line	1	Line1
6	BLF	11223344,2	302
7	One Touch Dial	9988776655	Office2
8	Line	2	Line2
9	One Touch Dial	123454321	Office1
10	BLF	987656789	303

**Description:**

- Button 1 is set to log in and log out of an ACD group on line 6.
  - Buttons 2, 6 and 10 are set to show the status of a certain extension. They can also be used to call that extension and transfer calls to it.<sup>\*1</sup>
  - Buttons 3, 7 and 9 are set to make calls to a certain destination using the One-Touch Dialing feature.
  - Button 4 is set to log in and log out of an ACD group on line 5.
  - Buttons 5 and 8 are set to make calls to a certain destination using the Line feature.
- <sup>\*1</sup> You can also assign extension numbers automatically to BLF buttons using the information in the server's resource list without having to input information here.

## 6.3.2 Settings using Configuration File Programming

Flexible keys can be configured by configuration file programming using a combination of 3 parameters:

- Parameter 1 refers to either "FLEX\_BUTTON\_FACILITY\_ACTx" or "DSS\_BUTTON\_FACILITY\_ACTx".
- Parameter 2 refers to either "FLEX\_BUTTON\_FACILITY\_ARGx" or "DSS\_BUTTON\_FACILITY\_ARGx".
- Parameter 3 refers to either "FLEX\_BUTTON\_LABELx" or "DSS\_BUTTON\_LABELx".

Details about parameters 1 and 2 are explained in the following table.

**Note**

- For parameter 2, value 1 and value 2 must be separated by a comma.

### 6.3.2 Settings using Configuration File Programming

Parameter 1	Parameter 2		
Value	Value 1	Value 2	Note
X_PANASONIC_I PTEL_ONETOUC H	Phone Number (Max. 32 characters)	Line Number (1–6)	The total maximum number of characters is 34. Line 1 is set when value 2 is "1", "0", or "None".
X_PANASONIC_I PTEL_BLF	Phone Number (Max. 32 characters)	Line Number (1–6)	The total maximum number of characters is 34. Line 1 is set when value 2 is "1", "0", or "None".
X_PANASONIC_I PTEL_LINE	Line Number (1–6)	–	The default line is set when value 1 is "0" or "None".
X_PANASONIC_I PTEL_ACD	Line Number (1–6)	–	The default line is set when value 1 is "0" or "None".
X_PANASONIC_I PTEL_WRAPUP	Line Number (1–6)	–	The default line is set when value 1 is "0" or "None".
X_PANASONIC_I PTEL_LINESTAT US	–	–	–
X_PANASONIC_I PTEL_FORWARD	Phone Number (Max. 32 characters)	–	–
X_PANASONIC_I PTEL_PHONEBO OK	1 (Local Phonebook)	Category Number (1–9)	The search by name screen is displayed when value 2 is "0" or "None".
	2 (Remote Phonebook)	–	–
	0 or None (Select Phonebook)	–	–
X_PANASONIC_I PTEL_CALLLOG	1 (Missed Call)	–	–
	2 (Incoming Call Log)	–	–
	3 (Outgoing Call Log)	–	–
	0 or None (Select Logs)	–	–
X_PANASONIC_I PTEL_PARARING	Line Number (1–6)	–	–
X_PANASONIC_I PTEL_HOTELING	–	–	–
X_PANASONIC_I PTEL_TRANSFER	Phone Number (Max. 32 characters)	–	–



Parameter 1	Parameter 2		
Value	Value 1	Value 2	Note
X_PANASONIC_I PTEL_BLINDTRA NSFER	Phone Number (Max. 32 characters)	–	–
X_PANASONIC_I PTEL_CONFERE NCE	Phone Number (Max. 32 characters)	–	–
X_PANASONIC_I PTEL_DIRECTPIC KUP	Phone Number (Max. 32 characters)	Line Number (1–6)	–
X_PANASONIC_I PTEL_CALLPARK	Call parking number (Max. 16 characters)	–	If value 1 is not set, the value of "NUM_PLAN_PARKING" is used.
X_PANASONIC_I PTEL_PARKRET RIEVE	Park retrieve number (Max. 16 characters)	Line Number (1–6)	If value 1 is not set, the value of "NUM_PLAN_PARK_RETRIEVIN G" is used.

## 6.4 Broadsoft XSI (Xtended Services Interface)

---

### 6.4.1 Outline

BroadWorksXsi is an API library used to support the integration of Internet service-based BroadWorks functionality to create web applications and mashups (web application hybrids).

The KX-HDV230 uses the Broadsoft XSI (Xtended Services Interface) to run the following services.

1. Remote Office
2. AnyWhere
3. Simultaneous Ring Personal
4. Calling Line ID Delivery Blocking (Anonymous Call)
5. Call Forward
6. Do Not Disturb
7. Anonymous Call Rejection

#### (1) Remote Office

The Remote Office function allows you to use your home phone or cellular phone as your office phone. All incoming calls are forwarded from the IP phone (the KX-HDV230) to the Remote Office phone number.

#### (2) AnyWhere

The AnyWhere function is for remote users to easily access their IP phone's functions (such as making and receiving calls, and voicemail) from any phone.

#### (3) Simultaneous Ring Personal

The Simultaneous Ring Personal function enables up to 10 other phone numbers to ring at the same time an IP phone (the KX-HDV230) receives a call.

#### (4) Calling Line ID Delivery Blocking (Anonymous Call)

The Calling Line ID Delivery Blocking (Anonymous Call) function sets the caller information for calls made from an IP phone (the KX-HDV230) to "Anonymous Call".

#### (5) Call Forward

The Call Forward function forwards incoming calls to an IP phone (the KX-HDV230) to a specified phone number.

\* When Feature Key Synchronization is set (FWD\_DND\_SYNCHRO\_ENABLE\_n="Y", see Page 307), the Call Forward function will not operate as an XSI function.

#### (6) Do Not Disturb

The Do Not Disturb function rejects incoming calls to the IP phone (the KX-HDV230).

\* When Feature Key Synchronization is set (FWD\_DND\_SYNCHRO\_ENABLE\_n="Y", see Page 307), the Do Not Disturb function will not operate as an XSI function.

#### (7) Anonymous Call Rejection

The Anonymous Call Rejection function rejects calls made to the IP phone (the KX-HDV230) as Anonymous Calls.

## 6.4.2 XSI Service Settings

Phone settings for using XSI services can be set using configuration parameters or the Web user interface (administrators only).

See **4.3.7 Xtended Service Settings** for making settings using the Web user interface.

The following parameter names will be displayed and can be set as needed.

Parameter Name	Description	Reference
XSI_ENABLE	Enables XSI services.	Page 214
XSI_SERVER	Specifies the XSI server.	Page 215
XSI_SERVER_TYPE	Specifies the communication method.	Page 215
XSI_SERVER_PORT	Specifies the port used for communication with the XSI server.	Page 215
XSI_USERID_n	Specifies the user name for each user (account) that will use XSI.	Page 215
XSI_PASSWORD_n	Specifies the password for each user (account) that will use XSI.	Page 216
XSI_PHONEBOOK_ENABLE_n	Specifies whether to enable or disable the Xsi phonebook service.	Page 216
XSI_PHONEBOOK_TYPE_n	Specifies the type of Xsi phonebook.	Page 216
XSI_CALLLOG_ENABLE_n	Specifies whether to enable or disable the Xsi call log service.	Page 216

### Note

To change settings for the following XSI services using a unit, the parameter ADMIN\_ABILITY\_ENABLE="Y" (see Page 305) must be set. (When ADMIN\_ABILITY\_ENABLE="N" is set, the settings can only be viewed.)

- Remote Office ("Remote Office")
- AnyWhere ("Anywhere")
- Simultaneous Ring Personal ("SimultaneousRing")
- Calling Line ID Delivery Blocking ("Anonymous Call")
- Anonymous Call Rejection ("Block Anonymous")

### Note

The text in parentheses are shown on the unit display.

Operations for accessing the above XSI services

1. **MENU**
2. **[▲]/[▼]: "Basic Settings" → OK**
3. **[▲]/[▼]: "Call Settings" → OK**
4. **[▲]/[▼]: "Remote Office", "Anywhere", "SimultaneousRing", "Anonymous Call", or "Block Anonymous" → OK**

## 6.5 BroadCloud (Presence)

### 6.5.1 Outline

The KX-HDV230 supports the following BroadCloud functions.

(1) BroadCloud Buddies

View the information of your Buddies.

(2) BroadCloud Favorites

View the information of your Buddies that have been marked as Favorites.

(3) BroadCloud Presence

Shares presence statuses.

### 6.5.2 BroadCloud (Presence) Function Settings

Phone settings for using XMPP functions can be set using configuration parameters or the Web user interface (administrators only).

See **4.3.8 UC Settings** for making settings using the Web user interface.

The following parameter names will be displayed and can be set as needed.

Parameter Name	Description	Reference
UC_ENABLE	Enables BroadCloud services.	Page 217
UC_USERID	Specifies user IDs for the BroadCloud server.	Page 217
UC_PASSWORD	Specifies passwords for the BroadCloud server.	Page 217
XMPP_SERVER	Specifies the IP address or FQDN of the XMPP server.	Page 217
XMPP_PORT	Specifies the communication port for XMPP.	Page 218
XMPP_TLS_VERIFY	Specifies the TLS (Transport Layer Security) certification validation type for protocol communication.	Page 218
XMPP_ROOT_CERT_PATH	Specifies the path (URL) of the ROOT certificate for XMPP.	Page 218
XMPP_CLIENT_CERT_PATH	Specifies the path (URL) of the Client certificate for XMPP.	Page 218
XMPP_PRIVATE_KEY_PATH	Specifies the path (URL) of the private key for XMPP.	Page 219

---

# **Section 7**

## ***Firmware Update***

*This section explains how to update the firmware of the unit.*

# 7.1 Firmware Server Setup

---

No special server is necessary for the firmware update. You can use an HTTP, HTTPS, FTP, or TFTP server as the firmware server by simply setting its URL.

### Note

- It is recommended to select a time for updating in which the unit will not be used. (For details about the timing of updating configuration files, see **2.2.4 Downloading Configuration Files**.)

# 7.2 Firmware Update Settings

---

Firmware updates are provided by the manufacturer when necessary.

The firmware update will be executed by setting the corresponding parameters using configuration file programming (→ see **5.3.6 Firmware Update Settings**) or Web user interface programming (→ see **4.7.2 Firmware Maintenance**). The following shows the parameters and the setting procedures:

### Firmware Update Enable/Disable

- In a configuration file, add the line, `FIRM_UPGRADE_ENABLE="Y"`.
- In the Web user interface, click the **[Maintenance]** tab, click **[Firmware Maintenance]**, and then select **[Yes]** for **[Enable Firmware Update]**.

### Firmware Version Number

- In a configuration file, specify the new version number in "`FIRM_VERSION`".

### Firmware Server URL

- In a configuration file, specify the URL in "`FIRM_FILE_PATH`".
- In the Web user interface, click the **[Maintenance]** tab, click **[Firmware Maintenance]**, and then enter the URL in **[Firmware File URL]**.

## Configuration Parameter Example

---

By setting the parameters as shown in the following example, the unit will automatically download the firmware file from the specified URL, "`http://firm.example.com/firm/01.050.fw`", and perform the update operation if the currently used firmware version is older than 01.050.

### Example

```
FIRM_UPGRADE_ENABLE="Y"  
FIRM_VERSION="01.050"  
FIRM_FILE_PATH="http://firm.example.com/firm/01.050.fw"
```

# 7.3 Executing Firmware Update

---

After configuring the firmware update settings in the configuration file, the firmware will be updated when the configuration file is downloaded. The firmware update procedure is detailed below.

## The firmware update process

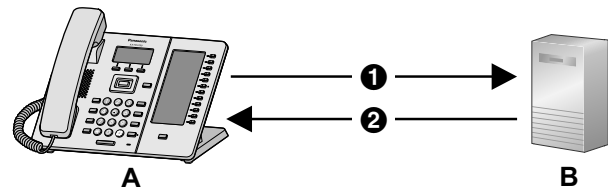
### Note

- Downgrading the firmware is not recommended. Operation cannot be guaranteed after performing a downgrade.

### Step 1

The unit downloads a configuration file from the provisioning server.

- For details about setting the timing of when configuration files are downloaded, see **2.2.4 Downloading Configuration Files**.



① Provisioning Server Address

② Configuration File

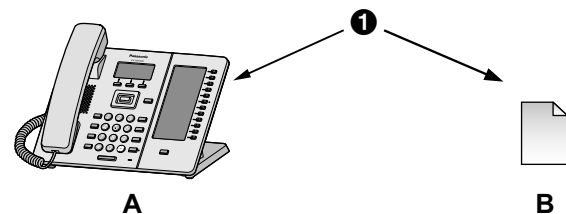
A. KX-HDV230

B. Provisioning Server

### Step 2

The unit compares the version number of the firmware in the configuration file to the unit's current firmware version.

(In this example, the unit is using version 01.000 and the configuration file specifies version 01.050.)



① Compare

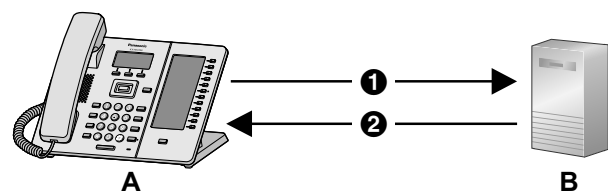
A. KX-HDV230

Current Version 01.000

B. Provisioned Configuration File  
FIRM\_VERSION="01.050"

### Step 3

When a newer firmware version is specified in the configuration file, the unit will download the firmware from the address specified under "FIRM\_FILE\_PATH" in the configuration file.



① <http://firm.example.com/firm/01.050.fw>

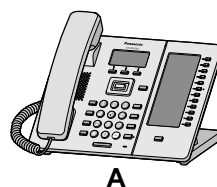
② 01.050.fw

A. KX-HDV230

B. Firmware Server

### Step 4

Once the newer firmware is downloaded, it is applied to the unit and the unit automatically restarts.



Version 01.050 Updated

# 7.4 Upgrade Firmware

---

When an updated version of the firmware is provided on a Web site or other means, you can perform the firmware update manually using Web user interface programming.

For details about the manual firmware update, see **4.7.3 Upgrade Firmware**.

### To manually update the firmware

1. In the Web user interface, click the **[Maintenance]** tab, and then click **[Upgrade Firmware]**.
2. Click **Browse**, select the folder where the firmware file is stored, and specify the firmware file on your PC.
3. Click **[Upgrade Firmware]**.



---

## **Section 8**

# ***Troubleshooting***

*This section provides information about troubleshooting.*

## 8.1 Troubleshooting

If you still have difficulties after following the instructions in this section, disconnect the unit from the AC outlet, then connect the AC adaptor again. If using PoE, disconnect the LAN cable, then connect the LAN cable again.

### General Use

Problem	Cause/Solution
I cannot hear a dial tone.	<ul style="list-style-type: none"> <li>• Network settings may not be correct.</li> <li>• Many installation issues can be resolved by resetting all the equipment. First, shut down your modem, router, hub, unit, and PC. Then turn the devices back on, one at a time, in this order: modem, router, hub, unit, PC.</li> <li>• If you cannot access Internet Web pages using your PC, check to see if your phone system is having connection issues in your area.</li> <li>• Check the VoIP status in the Web user interface and confirm that each line is registered properly (→ see <b>To check the setting status in the Web user interface</b> in this section).</li> <li>• Check that the SIP server address, URLs of the configuration files, encryption key, and other required settings are correct.</li> <li>• Check the firewall and port forwarding settings on the router.</li> <li>• For details about the settings, consult your network administrator or phone system dealer.</li> </ul>

### Making/Answering Calls, Intercom

Problem	Cause/Solution
The unit does not ring.	<ul style="list-style-type: none"> <li>• Check the VoIP status in the Web user interface and confirm that each line is registered properly (→ see <b>To check the setting status in the Web user interface</b> in this section).</li> <li>• Check that the SIP server address, URLs of the configuration files, encryption key, and other required settings are correct.</li> <li>• Check the firewall and port forwarding settings on the router.</li> <li>• Check <b>[Call Control]</b> for each line in the <b>[Telephone]</b> tab in the Web user interface. <ul style="list-style-type: none"> <li>– If <b>[Enable Do Not Disturb]</b> is set to <b>[Yes]</b>, the unit does not receive calls (→ see <b>4.6.2.1 Call Features</b>).</li> <li>– If <b>[Enable Call Forwarding No Answer]</b> is set to <b>[Yes]</b>, the unit does not receive calls (→ see <b>4.6.2.1 Call Features</b>).</li> <li>– If <b>[Enable Block Anonymous Call]</b> is set to <b>[Yes]</b>, the unit does not receive anonymous calls (→ see <b>4.6.2.1 Call Features</b>).</li> </ul> </li> <li>• Check that <b>[Enable Do Not Disturb]</b>, <b>[Enable Call Forwarding No Answer]</b>, and <b>[Enable Block Anonymous Call]</b> are not controlled by your phone system.</li> <li>• For details about settings, consult your network administrator or phone system dealer.</li> </ul>
I cannot make a call.	<ul style="list-style-type: none"> <li>• Check the VoIP status in the Web user interface and confirm that each line is registered properly (→ see <b>To check the setting status in the Web user interface</b> in this section).</li> <li>• Check that the SIP server address, URLs of the configuration files, encryption key, and other required settings are correct.</li> <li>• Check the firewall and port forwarding settings on the router.</li> <li>• For details about settings, consult your network administrator or phone system dealer.</li> </ul>

### Password for Web User Interface Programming

Problem	Cause/Solution
I have lost the login password of the Web user interface for the Administrator or User account.	<ul style="list-style-type: none"> <li>• Consult your network administrator or phone system dealer. For security reasons, it is recommended that the passwords are set again immediately (→ see <b>4.4.3 Admin Password Settings</b> or <b>4.4.2 User Password Settings</b>).</li> </ul>

**Time**

Problem	Cause/Solution
The time is not correct.	<ul style="list-style-type: none"> <li>In the Web user interface, you can set NTP synchronization and DST (Summer Time) control to adjust the time automatically (→ see <b>4.4.4 Time Adjust Settings</b>).</li> <li>If the time is still incorrect even after setting NTP synchronization, check the firewall and port forwarding settings on the router.</li> </ul>

**Error Codes**

During operation, error messages might appear on the unit. The following table lists these messages and possible causes and solutions.

Error code	Probable Cause	Solution
Error:001	LAN disconnection detected	Check the LAN cables connections.
Error:002	Overlapping IP addresses	Check the IP addresses and re-set them. For making settings using a unit, see 1.1.3 Basic Network Setup.
Error:003	The REGISTER of the SIP server has not been registered.	Consult your network administrator or phone system dealer.

**Error Message**

Error Message	Probable Cause	Solution
Need Repair	Hardware failure	Consult your network administrator or phone system dealer.

**Checking the Status of the Unit**

You can check the status of the unit by using Web user interface programming (→ see **4.2.2 Network Status** and **4.2.3 VoIP Status**) or by looking at system logs (→ see **5.3.35 Logging Settings**) sent from the unit.

**To check the setting status in the Web user interface**

1. Click the **[Status]** tab, and then click **[Network Status]** to check the network settings.
2. Check the status displayed.
3. Click **[VoIP Status]** to check the VoIP settings.
4. Check the status displayed.

**To check the setting status using the Unit**

1. **MENU**
2. **[▲]/[▼]**: "System Settings" → **OK**

3. [▲]/[▼]: "Status" → **OK**

## Export Logging File

---

Export the log file using the Web user interface (→ see **4.7.4 Export Logging File**).

## Panasonic System Networks Co., Ltd.

1-62, 4-chome, Minoshima, Hakata-ku, Fukuoka 812-8531, Japan

### **Copyright:**

This material is copyrighted by Panasonic System Networks Co., Ltd., and may be reproduced for internal use only. All other reproduction, in whole or in part, is prohibited without the written consent of Panasonic System Networks Co., Ltd.

© Panasonic System Networks Co., Ltd. 2015

**PNQX7500ZA** DD0715YY0