SYSLOG from Phone

(KX-UT1xx series/248)

No. 15-006

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Ver.1.1

Panasonic Corporation

Abstract about this document

This document describes about how to send SYSLOG from phone to SYSLOG server.

Revision history

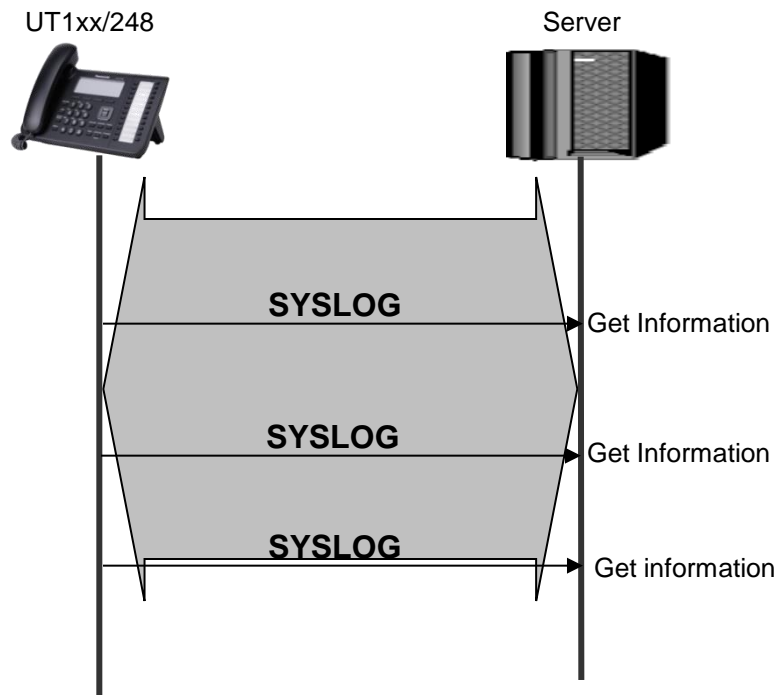| Date	Version	Revision	Firmware version
Jun. 22, 2011	Ver. 1.0	Initial Release	All versions
May 25, 2012	Ver. 1.1	Correct misdescription/Add UT248	All versions

Outline

1) Explanation about overview of SYSLOG. Format

2) Explanation about type and priority of configuration files

3) Configuration of SYLOG.

About SYSLOG

UT1xx series is supporting SYSLOG and SYSLOG is standard for logging messages.
We can provide several type of information by SYSLOG.

UT1xx/248   Server

Information Class sent thru SYSLOG

-SIP Message information
-File Download information
-VoIP information

SYSLOG → Get Information

SYSLOG → Get Information

SYSLOG → Get information

Example of SYSLOG (VoIP information)

<11>Jul 22 18:29:30 0080F0ABCDEF [SIP][Line-1:0123456789]Registration Success

<11>Jul 22 18:30:30 0080F0ABCDEF [SIP][Line-1:0123456789]Registration failure by no response

SYSLOG Format and Information class

SYSLOG Packet format

Priority part	Header part	Message part
-Priority -Information Class (Type)	-Time Stamp -Host Information	-Detailed message based on the type

SYSLOG Packet information class with priority

Information	Class	Priority	Description
SIP Message	SIP	Error (3)	Success / Failure REGISTER
		information(6)	All SIP message sent / received
File Download	FDL	warning(4)	Failure of downloading Configuration file or Firmware
		information(6)	Case the response value of Configuration file and Firmware is 302
			Success of downloading Configuration file or Firmware
VoIP info	VIP	information(6)	RTCP information

Detailed message for each Class (SIP)

Message information

Priority	Generate Timing	Message Format
Error	Generated when status is changed before and after REGISTER.	[SIP][Line-n:*Phone Number*]Registration {Success | end | failure by {(NNN) | no response | DNS error | internal error} Where n is Line number and (NNN) is Response code from Server.
Information	Export all information Received / Sent SIP messages	[SIP][SEND | RECV]: Src=<IP ADDR>:<PORT> Dst=<IP ADDR>:<PORT> <SIP message full>

Example :

<11>Jul 22 18:29:30 0080F0ABCDEF [SIP][Line-1:0123456789]Registration Success

<11>Jul 22 18:30:30 0080F0ABCDEF [SIP][Line-1:0123456789]Registration failure by no response

*lower numbers indicate higher priority

Detailed of each SYSLOG format (File Download)

Message information

Priority	Generate Timing	Message Format
Warning	Generate when failed of file transfer.	[FDL]File transfer failure by XXX. URL={URL+File Name} Where XXX is Error Information
Information	Generate when beginning or completion of file transfer by normally.	[FDL]File {download|upload} start. URL={URL+File Name} or {Configuration|Firmware|Phonebook} file {download|upload} start.
		[FDL]File {download | upload} complete. URL={URL+File Name}

Example :

<14>Jul 22 18:29:30 0080F0ABCDEF [FDL]File download start. URL=http://www.test.com/0080F0ABCDEF.cfg
<12>Jul 22 18:29:40 0080F0ABCDEF [FDL]File transfer failure by Error Response from Server (403). URL=http://www.test.com/0080F0ABCDEF.cfg
<14>Jul 22 18:30:30 0080F0ABCDEF [FDL]Firmware file download start. URL=http://www.test.com/0080F0ABCDEF.cfg
<12>Jul 22 18:32:00 0080F0ABCDEF [FDL]File transfer failure by Version Error. URL=http://www.test.com/0080F0ABCDEF.cfg
<14>Jul 22 18:33:30 0080F0ABCDEF [FDL]Phonebook file upload start.
<14>Jul 22 18:34:30 0080F0ABCDEF [FDL]File transfer complete. URL=http://www.test.com/0080F0ABCDEF.cfg

*lower numbers indicate higher priority

Detailed of each SYSLOG format (VoIP)

Message information

Priority	Generate Timing	Message Format
Information	Generate RTP summery information Periodically or Finishing of one call	[VIP]Ch ID:N1 Packets sent:N2 Packets received:N3 Received packets discarded:N4 Received packets lost:N5

Included information:

- Count of sent RTP packets
    Total of RTP data packets that UT1xx/248 sent.
- Count of received RTP packets
    Total of RTP data packets that UT1xx/248 received.
- Count of discarded RTP packets
    Total of RTP data packets that UT1xx/248 discarded.
    UT1xx series has jitter buffer. A jitter buffer temporarily stores arriving packets in order to delay variations. If RTP packets arrive too late then are discarded.
- Count of lost RTP packets
    Total of lost RTP data packets on network.

Example:

<14>Jul 22 18:29:30 0080F0ABCDEF [VIP]Ch ID:4 Packets sent:100 Packets received:100 Received packets discard

How to set SYSLOG

Please add following setting in case you'd like to monitor provisioning (downloading configuration file) status. You can see detailed information about each parameter in next page.

- **SYSLOG_ADDR**: Specifies the IP address or FQDN of the SYSLOG server.
- **SYSLOG_PORT**: Specifies the port number of the SYSLOG server.
- **SYSLOG_EVENT_SIP***1: Logs SIP-related SYSLOG events.
- **SYSLOG_EVENT_CFG***1: Logs SYSLOG events regarding configuration.
  "6" is for download (provisioning) status.
- **SYSLOG_EVENT_VOIP***1: Logs SYSLOG events regarding VoIP operation.
- **SYSLOG_EVENT_TEL***1: Logs SYSLOG events regarding telephone functions.

Example:

```
## SYSLOG Settings
SYSLOG_EVENT_CFG="6"
SYSLOG_ADDR="192.168.1.51"
SYSLOG_PORT="514"
```

Note : Even though you don't have SYSLOG Server, we can capture the packet for SYSLOG by wireshark.

Explanation of each parameter

SYSLOG_EVENT_SIP

Value Format	Integer
Description	Specifies which SIP-related syslog events are sent to the syslog server. **Note** • If the level of the event is higher than or equal to the set value, the log is sent to the syslog server.
Value Range	0–6 − 0: no logs sent − 1: emergency (highest) − 2: alert − 3: critical − 4: error − 5: warning − 6: information (lowest)
Default Value	0

SYSLOG_EVENT_CFG

Value Format	Integer
Description	Specifies the threshold of syslog events regarding configuration.
Value Range	0–6
Default Value	0

SYSLOG_EVENT_VOIP

Value Format	Integer
Description	Specifies the threshold of syslog events regarding VoIP operation.
Value Range	0–6
Default Value	0

SYSLOG_EVENT_TEL

Value Format	Integer
Description	Specifies the threshold of syslog events regarding telephone functions. **Note** • This setting is not applicable for the current version. No logs will be sent to the syslog server, even if values "1–6" are specified.
Value Range	0–6
Default Value	0

SYSLOG_ADDR

Value Format	String
Description	Specifies the IP address or FQDN of the syslog server.
Value Range	Max. 127 characters (IP address in dotted-decimal notation or FQDN)
Default Value	Empty string

SYSLOG_PORT

Value Format	Integer
Description	Specifies the port number of the syslog server.
Value Range	1–65535
Default Value	514

SYSLOG_RTPSMLY_INTVL_n

Parameter Name Example	SYSLOG_RTPSMLY_INTVL_1, SYSLOG_RTPSMLY_INTVL_2, …, SYSLOG_RTPSMLY_INTVL_6
Value Format	Integer
Description	Specifies the interval, in seconds, to send summarized information of RTP packets to the syslog server.
Value Range	0, 5–65535 (0: No information sent)
Default Value	20