

# **SYSLOG from Phone**

(KX-TGP series)

No. 05-006

May 25 , 2011

Ver.1.0

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 |
|--------------|----------|-----------------|------------------|
| May 25, 2011 | Ver. 1.0 | Initial Release | All versions     |

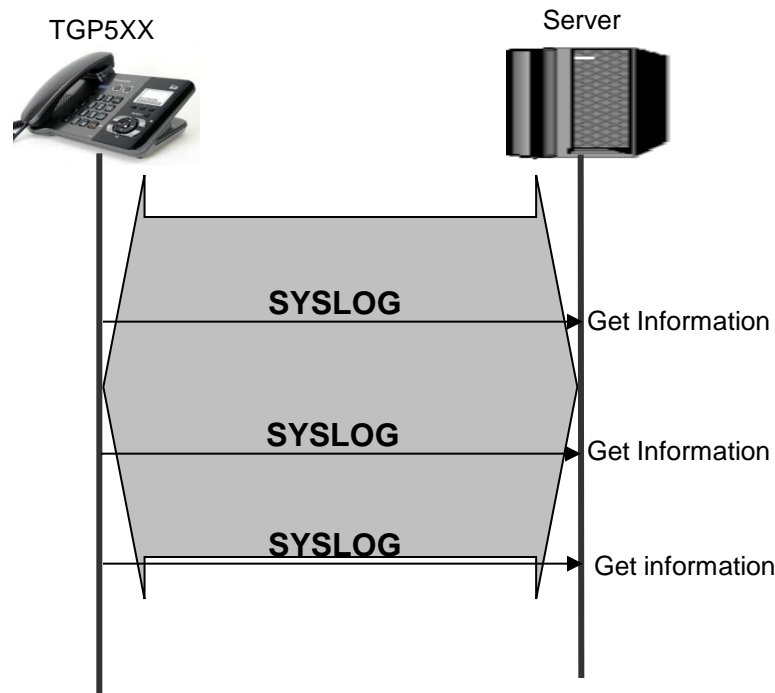
# Outline

- 1) Explanation about overview of SYSLOG. Format
- 2) Explanation about type and priority of configuration files
- 3) Configuration of SYLOG.

# About SYSLOG

TGP5XX series is supporting SYSLOG and SYSLOG is standard for logging messages.

We can provide several type of information by SYSLOG.



## Information Class sent thru SYSLOG

- SIP Message information
- File Download information
- VoIP 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<br>-Information Class (Type) | -Time Stamp<br>-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}<br>Where n is Line number<br>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
```

# 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}<br>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}<br>or<br>{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
```

# 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 TGP sent.
- Count of received RTP packets  
Total of RTP data packets that TGP received.
- Count of discarded RTP packets  
Total of RTP data packets that TGP discarded.  
TGP 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**: Logs SIP-related SYSLOG events.
- **SYSLOG\_EVENT\_CFG**: Logs SYSLOG events regarding configuration.  
**"6" is for download (provisioning) status.**
- **SYSLOG\_EVENT\_VOIP**: Logs SYSLOG events regarding VoIP operation.
- **SYSLOG\_EVENT\_TEL**: 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

|                      |   |
|----------------------|---|
| <b>Value Format</b>  | Integer   |
| <b>Description</b>   | <p>Specifies which SIP-related syslog events are sent to the syslog server.</p> <p><b>Note</b></p> <ul style="list-style-type: none"><li>• If the level of the event is higher than or equal to the set value, the log is sent to the syslog server.</li><li>• 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.</li></ul> |
| <b>Value Range</b>   | <p>0–6</p> <ul style="list-style-type: none"><li>– 0: no logs sent</li><li>– 1: emergency (highest)</li><li>– 2: alert</li><li>– 3: critical</li><li>– 4: error</li><li>– 5: warning</li><li>– 6: information (lowest)</li></ul>  |
| <b>Default Value</b> | 0   |

## SYSLOG\_EVENT\_CFG

|                      |   |
|----------------------|---|
| <b>Value Format</b>  | Integer   |
| <b>Description</b>   | Specifies the threshold of syslog events regarding configuration.<br><br><b>Note</b> <ul style="list-style-type: none"><li>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.</li></ul> |
| <b>Value Range</b>   | 0-6   |
| <b>Default Value</b> | 0   |

## SYSLOG\_EVENT\_VOIP

|                      |  |
|----------------------|--|
| <b>Value Format</b>  | Integer  |
| <b>Description</b>   | Specifies the threshold of syslog events regarding VoIP operation.<br><br><b>Note</b> <ul style="list-style-type: none"><li>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.</li></ul> |
| <b>Value Range</b>   | 0-6  |
| <b>Default Value</b> | 0  |

## SYSLOG\_EVENT\_TEL

|                      |   |
|----------------------|---|
| <b>Value Format</b>  | Integer   |
| <b>Description</b>   | Specifies the threshold of syslog events regarding telephone functions.<br><br><b>Note</b> <ul style="list-style-type: none"><li>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.</li></ul> |
| <b>Value Range</b>   | 0-6   |
| <b>Default Value</b> | 0   |

## SYSLOG\_ADDR

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

## SYSLOG\_PORT

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|                      |   |
|----------------------|---|
| <b>Value Format</b>  | Integer   |
| <b>Description</b>   | Specifies the port number of the syslog server. |
| <b>Value Range</b>   | 1-65535   |
| <b>Default Value</b> | 514   |

## SYSLOG RTPSMLY\_INTVL\_[1-8]

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|                               |  |
|-------------------------------|--|
| <b>Parameter Name Example</b> | <code>SYSLOG RTPSMLY_INTVL_1</code> , <code>SYSLOG RTPSMLY_INTVL_2</code> , ..., <code>SYSLOG RTPSMLY_INTVL_8</code> |
| <b>Value Format</b>           | Integer  |
| <b>Description</b>            | Specifies the interval, in seconds, to send summarized information of RTP packets to the syslog server.              |
| <b>Value Range</b>            | 0, 5-65535 (0: No information sent)  |
| <b>Default Value</b>          | 20   |