System Log Setup
(RTA1025W Rev2)
System Log
As shown on the web page, you can view the system log and configure system log whenever you want.

To view the system log, you must configure system log first. Press Configure System Log to start.

Configuring System Log
You can enable or disable the log function, and choose log level, display level and proper mode as you like. Then click Apply to invoke the settings or press Cancel to discard them.

There are 8 types of log level and display level for you to choose.

Log Level:
This function enables you to decide how detailed the messages will be stored. Set a proper level according to your needs. The default Log Level is Debugging.

The Debugging Level logs all messages to the file, while the Emergency Level logs fatal messages only. The lower the item is, the more detailed information it provides; i.e., debugging level stores the most detailed information.

Owing to the limitation of the storage on the ADSL router, the former information will be erased and replaced by the latest message automatically when the buffer is overflowed.

Display Level:
For the convenience of the users, the display level can function as a filter. It decides the level for the messages to exhibit when the user wants to view the logs on the local side. For example, for a programmer or engineer, he/she may want to know about debugging or informational level message; for general users, they may only need or want to learn about error, critical, alert, or emergency messages only. The default Display Level is Error.
Therefore, when the log level is “Debugging” and the display level is “Error”, the CPE logs the most detailed message but shows error level data only.

**Mode:**
You can choose where to store the logs; the options include **Local**, **Remote** and **Both**. **Local** means the CPE, i.e., the ADSL Router. **Remote** means the log server you specified to forward the log information to. The default mode is **Local**.

If you choose **Remote** or **Both**, you have to specify the **Server IP Address** and **UDP Port**, and all the events will be sent to the specified UDP port of the specified log server.

**Note:**
Display Level only filters for the local side. All the messages will be displayed on the remote Log Server.

**Example**
Suppose we are going to record the system logs on both the ADSL Router and the Server bearing IP address 10.11.95.2, the procedures below illustrate the situation:

**System Log Configuration**
1. Choose **Enabled** Log.
2. Select **Debugging** as the **Log Level**, and **Error** as the **Display Level**. (Or select other level according to your needs.)
3. Set the **Mode** as **Both**, key in the **Server IP Address** as 10.11.95.2, and leave the **Server UDP Port** as the default value 514.
4. Press **Apply** to invoke the settings.
Viewing System Log – Remote Side (Server)

To view the system log on the Log Server (10.11.95.2), a log viewing tool must be installed.

1. Download the Kiwi Syslog Daemon from Kiwi Enterprises.
   - Kiwi Syslog Daemon is a freeware Syslog Daemon for Windows. It receives, logs, displays and forwards Syslog messages from hosts such as routers, switches, and any other syslog enabled device. You can choose other logger tools; here, we use Kiwi for example.

2. Install the Kiwi Syslog server software on the PC (10.11.95.2).

3. Open the Kiwi Syslog Daemon application. You will get to a screen shown as follows.

   ![Kiwi Syslog Daemon GUI](image)

   The Date and Time record the logging time. The Priority field shows the log level, the Hostname exhibits the position of the host, and the Message column displays the process the description of it – before the colon is the name of the process and after the colon is the elaboration for that process.

   For example, message 1 shows alert level information which is a kernel process containing detailed intrusion information; message 2 displays notice level information which is an IGMP process exhibiting that the IGMP function had been started.
Viewing System Log – Local Side (ADSL Router)

For viewing the system log on local side, click the View System Log button on the webpage for system log configuration.

The system log record on the router will be displayed on a screen shown as below.

The **Date/Time** records the logging time, and the **Facility** field distinguishes different classes of system log message. The **Severity** field shows the log level, and the **Message** column displays the process and the description of it—the name of the process appears before the colon and the elaboration for that process after the colon.

For example, message 3 shows **critical** level information which is a **pppd** (PPP daemon) process showing that a valid IP address had been received from server, and connection is up; message 4 is a kernel process belonging to **critical** level information which reveals that the Ethernet 0 link is up.

You can press **Refresh** to update the log files or press **Close** to close the window.

Note that the earlier messages may be automatically replaced by the updated information when the buffer is overflowed on the router.