

# System Log Configuration on RV016, RV042, RV042G and RV082 VPN Routers

## Objective

A system log (Syslog) is used to log computer data. You can define the instances that will generate a log. Whenever an instance occurs, the time and event are recorded and sent to a syslog server or sent in an email. Syslog can then be used to analyze and troubleshoot a network along with increase network security.

This document explains the procedure to configure a Syslog server on RV016, RV042, RV042G and RV082 VPN Routers.

## Applicable Devices

- RV016
- RV042
- RV042G
- RV082

## Software Version

- v4.2.1.02

## Configuration of Syslog and Alerts

Step 1. Log in to the web configuration utility and choose **Log > System Log**. The *System Log* page opens:

## System Log

### Syslog

☐ Enable Syslog
 Syslog Server :  (Name or IPv4 / IPv6 Address)

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### Email

☐ Enable Email Alert
 Mail Server :  (Name or IPv4 / IPv6 Address)
 Send Email to :  (Email Address)
 Log Queue Length :  Entries
 Log Time Threshold :  Minutes

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### Log Setting

#### Alert Log

☐ Syn Flooding
 ☐ IP Spoofing
 ☐ Win Nuke
 ☐ Ping Of Death
 ☒ Unauthorized Login Attempt

#### General Log

☒ System Error Messages
 ☐ Deny Policies
 ☐ Allow Policies
 ☒ Configuration Changes
 ☒ Authorized Login

## Syslog

This section explains how to enable the router to send detailed log files to your syslog server when events are logged.

## System Log

### Syslog

☒ Enable Syslog
 Syslog Server :  (Name or IPv4 / IPv6 Address)

Step 2. Check the **Enable Syslog** check box to enable the syslog service on the device.

**Timesaver:** Skip to Step 4 if Syslog needs to be disabled.

Step 3. Enter the domain name or the IP address of the syslog server in the Syslog server field.

## Email

This section explains how to enable the router to send email alerts when events are logged.

**Email**

☒ Enable Email Alert

Mail Server :  (Name or IPv4 / IPv6 Address)

Send Email to  (Email Address)

Log Queue Length :  Entries

Log Time Threshold :  Minutes

Step 4. Check **Enable Email Alert** to enable the feature. This enables the router to send email alerts to the user specified email address.

**Timesaver:** Skip to Step 10 if Email Alert needs to be disabled.

Step 5. Enter the IPv4 or IPv6 address of the SMTP server of your ISP in the Mail Server field.

**Note:** Your ISP may require that you identify your router with a host name. Choose **Setup > Network** to define your router host name.

Step 6. Enter the email address where you want to send the alerts in the Send Email to field.

Step 7. Enter the number of log entries to include in the email in the Log Queue Length field. The default is 50.

Step 8. Enter the number of minutes to collect data before sending the log in the Log Time Threshold field. The log time threshold is the maximum wait time before an email log message is sent. When the log time threshold expires an email is sent whether the email log buffer is full or not. The default is 10 minutes

Step 9. (Optional) Click **Email Log Now** to instantly send a message to the specified email address to test the settings.

## Log Setting

This section explains the variety of events that can be reported in the logs:

**Log Setting**

**Alert Log**

☐ Syn Flooding      ☐ IP Spoofing      ☐ Win Nuke

☐ Ping Of Death      ☒ Unauthorized Login Attempt

**General Log**

☒ System Error Messages      ☐ Deny Policies      ☐ Allow Policies

☒ Configuration Changes      ☒ Authorized Login

View System Log   Outgoing Log Table   Incoming Log Table   Clear Log

Save   Cancel

Step 10. The Alert Log area contains common types of attacks and unauthenticated login attempts. Check the check boxes of any type of desired attacks to include them in the event log, or uncheck them to omit them from the event log.

- SYN Flooding — The attacker sends many SYNC packets continuously which causes the router to open multiple sessions so that traffic becomes very crowded and it results in the router denying legitimate traffic.
- IP Spoofing — The attacker sends packets from a fake source IP address to make the attack look like legitimate traffic.
- Win Nuke — The attacker sends an Out of Band message to a Windows machine to make the target computer crash.
- Ping of Death — The attacker sends a large IP packet to make the target computer crash.
- Unauthorized Login Attempt — Someone tried to log in to the Router Configuration Utility without proper authentication.

Step 11. The General Log area includes the actions that are performed to enforce configured policies as well as routine events such as authorized logins and configuration changes. Check the check box of any desired event to include it in the General Log. Uncheck the check box to omit it from the General Log.

- System Error Messages — All system error messages.
- Deny Policies — Instances when the router denied access based on your Access Rules.
- Allow Policies — Instances when the router allowed access based on your Access Rules.
- Configuration Changes — Instances when someone saved changes in the configuration.
- Authorized Log In — Instances when someone successfully logged into the router configuration utility after entering the correct username and password.
- Output Blocking Event — Instances where there is an event in the ProtectLink web reputation, or URL filtering.

**Note:** Output Blocking Event is only available on RV082 VPN routers.

**Log Setting**

**Alert Log**

☐ Syn Flooding ☐ IP Spoofing ☐ Win Nuke

☐ Ping Of Death ☒ Unauthorized Login Attempt

**General Log**

☒ System Error Messages ☐ Deny Policies ☐ Allow Policies

☒ Configuration Changes ☒ Authorized Login

**View System Log** **Outgoing Log Table** **Incoming Log Table** **Clear Log**

**Save** **Cancel**

Step 12. (Optional) To view the system log click **View System Log**. The *System Log* window appears:

Current Time : Fri Jan 1 02:53:56 2010

Time	Event-Type	Message
Jan 1 04:18:02 2010	System Log	HTTP Basic authentication success for user: admin
Jan 1 05:38:06 2010	System Log	HTTP Basic authentication success for user: admin
Jan 1 00:00:05 2010	System Log	router79f37a : System is up
Jan 1 00:04:42 2010	System Log	HTTP Basic authentication success for user: admin
Jan 1 02:53:40 2010	System Log	HTTP Basic authentication success for user: admin

ALL  
System Log  
Access Log  
Firewall Log  
VPN Log

**Refresh** **Clear** **Close**

**Note:** Log entries give the date and time of the event type and a message. This message indicates the type of policy such as Access rule, the LAN IP address of the source, and the MAC address.

Step 13. Choose a particular log from the drop-down list.

Step 14. (Optional) To update the data click **Refresh**.

Step 15. (Optional) To erase all the shown information click **Clear**.

Step 16. Click **Close** to close the window.

**Log Setting**

**Alert Log**

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☐ Ping Of Death ☒ Unauthorized Login Attempt

**General Log**

☒ System Error Messages ☐ Deny Policies ☐ Allow Policies

☒ Configuration Changes ☒ Authorized Login

View System Log **Outgoing Log Table** Incoming Log Table Clear Log

Save Cancel

Step 17. (Optional) To view the information about the outgoing packets, click **Outgoing Log Table**. The information appears in a new window.

Time	Event-Type	Message
Jul 16 13:24:17 2013	Connection Accepted	TCP 192.168.1.100:52416->74.125.227.113:443 on eth1
Jul 16 13:24:17 2013	Connection Accepted	TCP 192.168.1.100:52416->74.125.227.113:443 on eth1
Jul 16 13:24:17 2013	Connection Accepted	TCP 192.168.1.100:52415->69.171.248.16:443 on eth1
Jul 16 13:24:19 2013	Connection Accepted	TCP 192.168.1.100:52436->157.55.240.222:443 on eth1
Jul 16 13:24:20 2013	Connection Accepted	TCP 192.168.1.100:52437->157.55.240.222:443 on eth1
Jul 16 13:24:29 2013	Connection Accepted	TCP 192.168.1.100:52458->164.113.67.8:80 on eth1
Jul 16 13:24:29 2013	Connection Accepted	TCP 192.168.1.100:52458->164.113.67.8:80 on eth1
Jul 16 13:24:30 2013	Connection Accepted	TCP 192.168.1.100:52458->164.113.67.8:80 on eth1
Jul 16 13:24:31 2013	Connection Accepted	TCP 192.168.1.100:52458->164.113.67.8:80 on eth1
Jul 16 13:24:31 2013	Connection Accepted	TCP 192.168.1.100:52458->164.113.67.8:80 on eth1
Jul 16 13:24:33 2013	Connection Accepted	TCP 192.168.1.100:52458->164.113.67.8:80 on eth1
Jul 16 13:24:33 2013	Connection Accepted	TCP 192.168.1.100:52458->164.113.67.8:80 on eth1

Step 18. (Optional) To update the data click **Refresh**.

Step 19. Click **Close** to close the window.

**Log Setting**

**Alert Log**

☐ Syn Flooding ☐ IP Spoofing ☐ Win Nuke

☐ Ping Of Death ☒ Unauthorized Login Attempt

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☒ Configuration Changes ☒ Authorized Login

View System Log Outgoing Log Table **Incoming Log Table** Clear Log

Save Cancel

Step 20. (Optional) Click **Incoming Log Table** to view the information about the incoming packets. The information opens in a new window. If a warning appears about the pop-up window, allow the blocked content.

Current Time : Tue Jul 16 20:55:23 2013

Refresh

Close

Time	Event-Type	Message
Jul 16 20:55:13 2013	Connection Accepted	ICMP type 0 code 0 10.1.1.2->192.168.1.13 on eth0
Jul 16 20:55:14 2013	Connection Accepted	ICMP type 0 code 0 10.1.1.2->192.168.1.13 on eth0
Jul 16 20:55:15 2013	Connection Accepted	ICMP type 0 code 0 10.1.1.2->192.168.1.13 on eth0
Jul 16 20:55:16 2013	Connection Accepted	ICMP type 0 code 0 10.1.1.2->192.168.1.13 on eth0

Step 21. (Optional) To update the data click **Refresh**.

Step 22. Click **Close** to close the window.

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Step 23. (Optional) To clear out the log, click **Clear Log Now**. Click this button only if the information does not need to be viewed again in the future.

Step 24. Click **Save** to save the configuration.