Deploying the BIG-IP LTM with IBM QRadar Logging

Welcome to the F5 deployment guide for IBM® Security QRadar® SIEM and Log Manager. This guide shows administrators how to configure the BIG-IP Local Traffic Manager (LTM) for Syslog event load balancing for IBM Security QRadar SIEM and Log Manager.

The BIG-IP LTM is capable of load balancing Syslog event messages. This is beneficial for environments that have more logs being generated than a single log server can collect. By deploying multiple QRadar log servers behind the BIG-IP system, the load of the log generating devices can be spread across multiple log collectors.

Products and applicable versions

Product	Version
BIG-IP LTM	11.3 -12.1.1
IBM QRadar	7.1, 7.2.6
Document version	1.2 (see *Document Revision History on page 7)*

To provide feedback on this deployment guide or other F5 solution documents, contact us at *solutionsfeedback@f5.com*

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Why F5?

Scaling syslog services can become a manual task that involves the configuration and restart of multiple configuration files; an error prone set of procedures. By using BIG-IP Local Traffic Manager, you can realize the following benefits:

- Reduce configuration complexity by using a Virtual IP Address instead of hard-coding individual QRadar SIEM IP addresses,
- Increase uptime and percentage of log retention by managing failover through BIG-IP's health monitors,
- Ease scaling the configuration by reducing the effort required to add resources; simply add a new server to the BIG-IP load balancing pool.

Prerequisites and configuration notes

The following are general prerequisites and configuration notes for this guide.

- You must have the F5 BIG-IP system installed, licensed, and provisioned with Local Traffic Manager (LTM).
- You must have management administrative access rights to the BIG-IP system.
- You need an available IP address on the BIG-IP system's External VLAN for the virtual server
- The QRadar Log collectors must be installed and accessible in an internal VLAN on the BIG-IP system.
- You must have QRadar DSMs installed for each of the log server sources
- Make sure you are using the most recent version of this deployment guide, available at *http://f5.com/pdf/deployment-guides/ibm-qradar-dg.pdf*.

Network topology

The following diagram shows the network topology of the configuration described in this guide

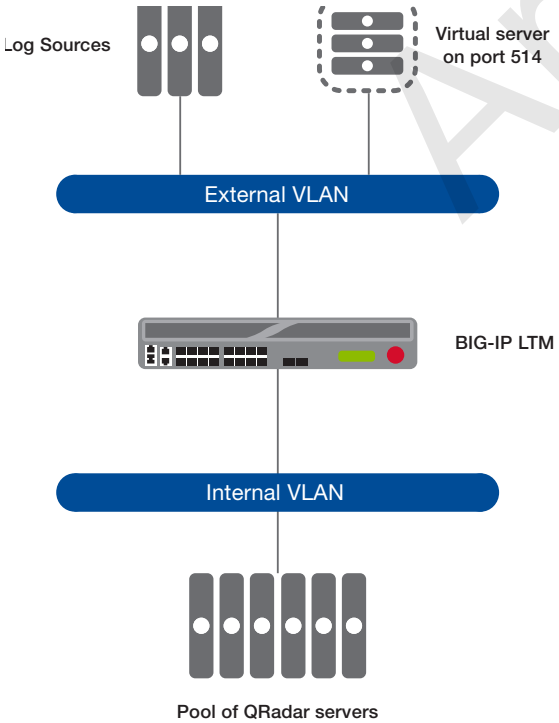


Figure 1: *Logical configuration example*

Configuring the BIG-IP LTM for QRadar SIEM and Log Manager

Use the following tables for guidance on configuring the BIG-IP system for the IBM Security QRadar SIEM and Log Manager. These tables contains any non-default setting you should configure as a part of this deployment. Settings not contained in the table can be configured as applicable. For specific instructions on configuring individual objects, see the online help or product manuals.

BIG-IP object	Non-default settings/Notes	
Health Monitor (*Local Traffic-->Monitors*)	***Name***	Type a unique name.
	Type	**TCP** or **UPD** depending on which protocol your QRadar nodes are using
	Interval	**30**
	Timeout	**91**
Pool (*Local Traffic -->Pools*)	***Name***	Type a unique name.
	Health monitor	Add health monitor you created
	Slow Ramp Time[1]	**300**
	Load Balancing Method	**Least Connections (member)** recommended
	Address	IP address of the QRadar node
	Service Port	**514** (514 is the default syslog port, modify this port if you have configured your syslog implementation to use a non-standard port)
		Repeat Address and Port for all members
Profiles (*Local Traffic-->Profiles*)	***Protocol*** (*Profiles-->Protocol*)	**TCP profile if your QRadar nodes are using TCP**
		Name: Type a unique name.
		Parent profile: **TCP**
		UDP profile if your QRadar nodes are using UDP
		Name: Type a unique name.
		Parent profile: **UDP**
		Datagram LB[2]: **Enabled** (optional)
	Persistence (*Profiles-->Persistence*)	Name: Type a unique name.
		Persistence Type: **Source Address Affinity**
Virtual Server (*Local Traffic-->Virtual Servers*)	***Name***	Type a unique name.
	Destination Address	Type the IP address for the virtual server. This address is where the log sources will send their log events.
	Service Port	**514** (514 is the default syslog port, modify this port if you have configured your syslog implementation to use a non-standard port)
	Protocol	**TCP** or **UPD** depending on which protocol your QRadar nodes are using
	VLAN and Tunnel Traffic	Select **Enabled on...**, and then move the external VLAN (or the VLAN closest to the log server sources) to the **Selected** list.
	Source Address Translation	**None**
	Default Pool	Select the pool you created for the QRadar nodes
	Default Persistence Profile	Select the persistence profile you created above

[1] *You must select* **Advanced** *from the* **Configuration** *list for these options to appear.*

[2] *Optional, only necessary if you want the system to load balance UDP traffic packet-by-packet*

Viewing virtual server statistics

You can easily monitor statistics for the virtual server. Once the log servers have started sending log events to the virtual server, these statistics will reflect the traffic utilization.

To view virtual server statics

1. On the Main tab, expand **Local Traffic**, and then click **Virtual Servers**.
2. From the list, click the name of the virtual server you just created.
3. On the menu bar, click **Statistics** to view a wide range of statistics for the virtual server.

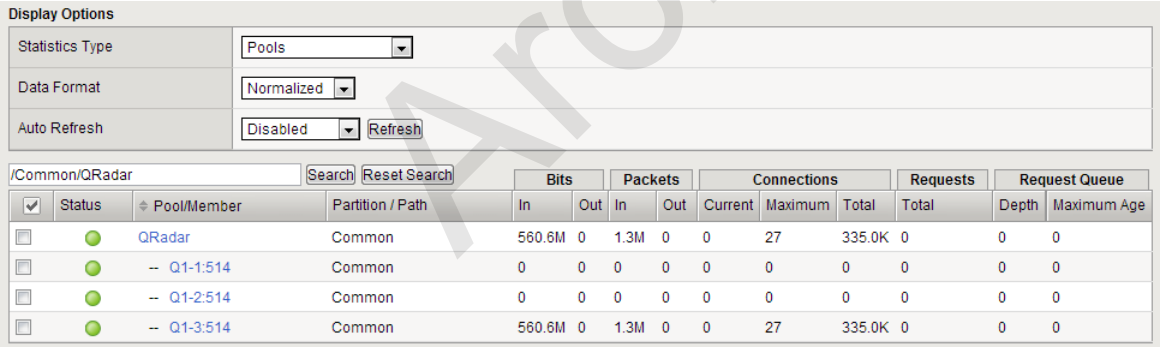
Viewing load balancing pool statistics

You can also monitor the traffic to each of the log servers. These statistics report the accumulated traffic in bits, packets, connections, and requests.

To view pool statics

1. On the Main tab, expand **Local Traffic**, and then click **Pools**.
2. From the list, click the name of the pool you just created.
3. On the menu bar, click **Statistics** to view a wide range of statistics for the pool.

   In the following example, Pool member Q1-3 is actively receiving events.



QRadar Configuration

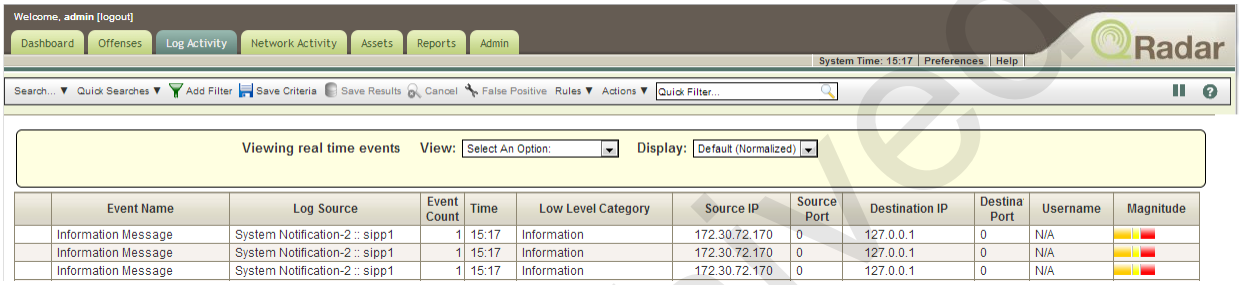
QRadar needs to be configured for the DSM that supports the BIG-IP system. This module is how QRadar interprets the log sentences. If the BIG-IP system is also load balancing logs from third party devices, the DSMs for those devices also need to be installed.

DSM Installation

Refer to the IBM Security QRadar DSM Configuration guide for details on installing and updating the DSM installation.

Viewing Log Events

To view log events, open the QRadar console, and then navigate to the Log Activity tab. From the **View** list select **Real time Streaming**. As the logs are received, QRadar will display them in order of arrival.



Next Steps

The only additional required task is to adjust the configuration of all of the services you intended to deliver to the QRadar SIEM via syslog by changing the syslog destination server IP address to the BIG-IP's Virtual Server IP address. Ensure that your machines have a route to the BIG-IP Virtual IP address. For specific instructions, consult the appropriate documentation.

Document Revision History

Version	Description	Date
1.0	New guide	07-09-2013
1.1	Corrected the product name to IBM Security QRadar SIEM and Log Manager	07-22-2013
1.2	Updated the applicable BIG-IP LTM and QRadar versions in *Products and applicable versions on page 1*.	02-14-2017

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