Reporter 10.x
Deployment Guide
Blue Coat Reporter 10.x Deployment Walkthrough

This document describes how to deploy Blue Coat® Reporter 10.x

This document provides the following.

- How to deploy a Reporter RP-S500 series appliance.
- How to install Reporter on a Virtual Appliance (VA)
- How to configure a ProxySG appliance to upload FTP logs.
- How to create a Reporter database to read data.

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### Reporter Resource Sizing

This section provides the supported server information required to operate Reporter.

#### FTP Servers

Blue Coat Reporter requires a ProxySG appliance to send its `bcreportermain` format access logs to a dedicated FTP server.

These are the FTP server types with which Blue Coat has tested Reporter. Other FTP servers might function correctly, but they are not officially supported by Blue Coat.

- Windows FTP (through IIS)
- Linux: VSFTPD

#### RP-S500 Appliances

- 24TB
- RAID 10
- 262144 RAM
- 40 CPU

#### Virtual Appliances

Blue Coat Reporter is supported on ESXi 5.5 Update 2 (minimum build: 2068190) virtual appliances with ESX Enterprise or Enterprise Plus licenses (the Basic license does not allow enough processing resource). The purchased license determines how many CPUs and how much RAM are required to ensure that Reporter processes run efficiently. Use this data to understand how much resource to dedicate.

<table>
<thead>
<tr>
<th>VA License</th>
<th>CPUs</th>
<th>Minimum Memory</th>
<th>Maximum Drive Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP-V50</td>
<td>8 cores</td>
<td>65536 MB</td>
<td>2200</td>
</tr>
<tr>
<td>RP-V100</td>
<td>16 cores</td>
<td>131072 MB</td>
<td>4400</td>
</tr>
<tr>
<td>RP-V200</td>
<td>32 cores</td>
<td>196608 MB</td>
<td>8800</td>
</tr>
</tbody>
</table>

For more information about licensing, including product behavior when a license is not valid, see "About Reporter Licensing" on the next page.
About Reporter Licensing

The Blue Coat Reporter limits the maximum disk space the product uses. Blue Coat provides the following Reporter 10.x license options.

Reporter RP-S500 Appliance

The license matches the total disk space (original specification). Check the current System Resources consumption on the Admin link > System Overview > System Diagnostics page.

Reporter VA

Blue Coat offers licenses, which allows up to the total usable disk space.

- RP-V50
- RP-V100
- RP-V200

Each versions specifies CPU and RAM sizing. For a complete sizing schematic, see "Reporter Resource Sizing" on the previous page.

Reporter VA—About the Phone-Home Service

The following information applies to Reporter VA only.

To ensure license integrity, Reporter VA periodically communicates with Blue Coat license portal to validate the issued licenses. This requires continuous successful network connectivity with the Blue Coat network. To allow for temporary WAN outages, this operation continues for 12 hours or until a successful license validation occurs. After 12 hours, the Reporter license state changes to invalid. Until this license issue is resolved, you can continue to use all Reporter functionality except for new database and log source creation; furthermore, Reporter halts the processing of all new data in existing databases.

Because of the Phone-Home Service, Reporter VA is not supported in closed networks. For that deployment scenario, consider the Reporter appliance (RP-S500), which employs a licensing scheme based on unique hardware serial numbers. Blue Coat expects to release this platform in early Fall, 2015.
Select a Deployment

Select which Reporter product you want to deploy.

Reporter Appliance

Currently, 10.x is available to install on a virtual appliance (VA) only. Blue Coat plans to release a new hardware platform version in the near future. The information in the following section is for pre-information only. Upon release, this document will be amended.

"Deploy the Reporter Appliance" on page 8

Virtual Appliance

Install Reporter on a supported virtual appliance.

"Install Reporter on a Virtual Appliance" on page 10
Deploy the Reporter Appliance

This section provides the Reporter appliance initial configuration steps.

Prerequisite

The following procedure assumes that the Reporter appliance is unboxed and is connected with the appropriate cabling. If you require the full setup process, refer to the Blue Coat RP-S500 Series Quick Start Guide or point a mobile device to the QR code.

The Reporter Documentation page contains this document.

Load onto mobile.

Plan

You must have the following network information on hand to perform initial configuration.

<table>
<thead>
<tr>
<th>Network Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP-S500 IP address</td>
</tr>
<tr>
<td>Subnet mask</td>
</tr>
<tr>
<td>Console password to access advanced CLI commands</td>
</tr>
<tr>
<td>Default Gateway IP address</td>
</tr>
<tr>
<td>Primary DNS server IP address</td>
</tr>
<tr>
<td>Admin password to gain appliance access</td>
</tr>
</tbody>
</table>

Perform the Initial Configuration

1. Access the RP-S500 CLI and run the initial configuration wizard.
   a. Confirm that a null-modem serial cable is connected from the RP-S500 appliance to the workstation serial port.
   b. Open a terminal emulation program such as Microsoft HyperTerminal®, PuTTY, Tera Term, or Procomm™.
   c. Configure the terminal emulation software to the following settings.

   Baud rate: **9600 bps**  Data bits: **8**
2. Power on the RP-S500 appliance.
3. After the appliance boots up, press <Enter> three times when prompted to begin the initial configuration wizard.
4. At each parameter prompt, enter your network information.
   
   If the RP-S500 appliance is connected to the network, the configuration wizard attempts to verify DNS server addresses and auto-detect link settings.

5. When prompted, assign the password to the admin account.

Next Step

- Proceed to License Reporter on page 13.
Install Reporter on a Virtual Appliance

Obtain the Blue Coat Reporter OVF image and complete the CLI initial configuration script, which prompts you to define network parameters and download the entitled license.

Prerequisites

Before beginning the installation, confirm that you have the required system and information.

Hardware

- ESXi 5.5 Update 2 (minimum build: 2068190) server with a properly resourced VA. See Reporter Resource Sizing on page 5.

OVF Image

Obtain the OVF image.

1. In a browser, access https://bto.bluecoat.com/downloads.
2. Click the Downloads tab.

You must be logged in with valid BTO credentials to view and access the Downloads tab.

3. Click the Blue Coat Product Downloads link.
4. Click Reporter. BTO checks the access credentials against the entitlements for your account. If you do not see Reporter as an entitlement link, contact Blue Coat Technical Support.
5. Locate the VA link and download the package to a location accessible by the person assigned to install Reporter.

Network/Registration Information

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>OVF Image</td>
<td>Obtained from Blue Coat: Folder Location:__________________________</td>
</tr>
<tr>
<td>VA IP Address</td>
<td></td>
</tr>
<tr>
<td>Netmask</td>
<td></td>
</tr>
<tr>
<td>Gateway IP Address</td>
<td></td>
</tr>
<tr>
<td>Primary DNS IP Address</td>
<td></td>
</tr>
<tr>
<td>(Optional) Secondary DNS IP Address</td>
<td></td>
</tr>
<tr>
<td>Serial Number Provided By Blue Coat</td>
<td></td>
</tr>
</tbody>
</table>
Standard Procedure (VGA Console)

Perform the following steps if you are accessing the virtual appliance from the VGA console.

1. Access the Virtual Appliance interface.

2. Install the OVF image.
   a. Select **File > Deploy OVF Template**.
   b. Navigate to and select the OVF image obtained by Blue Coat.
   c. Click **Next** and install the image.

3. Power on the Reporter VA.
   a. Right-click the installed instance and select **Open Console**. The client displays a CLI terminal.
   b. In the toolbar, click the green play **arrow** to power on the Reporter VA.
      At this point, the VA perform disk allocation and formatting. Depending on installed version as entitled by your purchased license (2TB/4TB/8TB), this process requires several minutes to an hour. You can monitor the status.
   c. Select the ESX main host from top of guest list (not the Reporter guest).
   d. Select **Performance**.
   e. From the **Switch To** drop-down list, select **Datastore**.
      During formatting, the use remains at a flat high level. When the level drops to normal, proceed to the next step.

4. Register Reporter.
   a. Enter the **serial_number** provided by Blue Coat.
   b. Press Enter three times to enter installation mode.

5. Perform the initial configuration.
   a. At the CLI option prompt, enter 2 (Setup).
   b. Enter the VA **IP address**.
   c. Enter netmask.
   d. Enter the gateway IP address.
   e. Enter primary **DNS server IP address**.
   f. (Optional) Enter the secondary **DNS server IP address**.
   g. Define an **admin_name** and **password** to be used to access this console and the web-based user interface.

6. At the prompt, press Enter to reboot the Reporter VA.

The reboot process finalizes the disk allocations. This requires some additional time; however, the wait is substantially shorter than the initial wait in Step 3.
Next Step

Proceed to "License Reporter" on page 13.
License Reporter

Blue Coat Reporter must connect to a Blue Coat server to retrieve the license.

- Licensing Reporter from an appliance that can freely access the Internet requires a single CLI command.
- If your network requires a proxy connection to the Internet, you must use the CLI to identify that proxy.
- If Reporter exists in a closed network, you must obtain the license separately and place on a server that Reporter can access.

You must know your Blue Coat BTO credentials.

Reporter VA is not supported in closed networks. If you require more information, see About Reporter Licensing on page 6.

Internet Access

Perform this procedure if Reporter has access to the Internet.

1. From your terminal emulation software or the VA console, access the Reporter appliance CLI.
2. Select 1) Command Line Interface.
3. Enter `enable` to switch to privileged command mode.
4. Enter `license download`, then your BTO credentials when prompted. This begins the download.
5. To verify, enter `license view`.

Internet Access—Proxy Required Option

Perform this procedure if Reporter requires connection to an HTTP proxy.

1. Connect to the HTTP proxy.
   a. From your terminal emulation software, access the Reporter appliance CLI.
   b. Select 1) Command Line Interface.
   c. Enter `enable` to switch to privileged command mode.
   d. Enter `http-proxy configure`.
   e. When prompted, enter the HTTP proxy parameters.
   f. Enter `http-proxy enable`.
   g. To verify network configuration details, enter `show setupinfo`.
2. Install the license.
a. Enter `license download`, then your BTO credentials when prompted. This begins the download.
b. To verify, enter `license view`.

**Closed Network Option**

Perform this procedure if Reporter is prohibited from connecting to the Internet.

1. Obtain the license file from Blue Coat.
   a. In a browser on a client system with Internet access, go to `https://bto.bluecoat.com/licensing`; log in with your BTO credentials.
   b. Navigate to the appliance entitlement page and download the license file.
   c. Install the license file on an HTTP server to that is accessible by Reporter appliance.

2. Use the Reporter CLI to install the license.
   a. From your terminal emulation software, access the Reporter CLI.
   b. Select 1) Command Line Interface.
   c. Enter `enable` to switch to privileged command mode.
   d. Enter `license download-from license_file_location`.
   e. Exit the CLI.

After the license successfully downloads and installs, allow approximately one minute for services to start before attempting to access the interface.
Access the Reporter Interface

1. In a browser, enter the RP-S500 IP address that you defined during the initial configuration process. The format is: 
   \textit{https://ip\_address:8082}

2. Enter the admin password (not the CLI enable mode password) that you defined during the initial configuration process.

Reporter displays the \textbf{General Settings > Reporter Settings > Data Settings > Databases} page in the Admin mode.

Next Step

- Proceed to \textit{Deploy an FTP Server on page 16}.
- If an FTP is already deployed, proceed to "\textit{Upload Access Logs From ProxySG to FTP Server}" on page 17.
- If both of these are complete already, continue with Reporter first-time setup; proceed to "\textit{Create a Database}" on page 19.
Deploy an FTP Server

Supported

Blue Coat tested the following FTP servers. Other FTP servers might function correctly, but they are not officially supported by Blue Coat.

- Windows FTP (through IIS)
- Linux: VSFTPD

Requirements

- Blue Coat Reporter must be able to communicate with a dedicated FTP server.
- This server must also be able to communicate with the ProxySG to receive the Access Logs.
- The directory path for the log source must have read/write privileges.
- The logged in user must have read/write privileges.
Upload Access Logs From ProxySG to FTP Server

Reporter retrieves access logs from a dedicated FTP server. Configure the gateway ProxySG appliance to send its main format access logs to the FTP server.

ProxySG Notes

- Applies to Reporter VA only: The ProxySG appliance must be running SGOS 6.5.6.1 (Feb 12, 2015) or later. This release contains functionality required for the VA version.

Prerequisite

Deploy a supported Windows or Linux FTP server (for supported servers, see "Reporter Resource Sizing" on page 5).

Step 1—Access the ProxySG Appliance.

From a browser, enter:

`https://proxySG_IP_address:8082`

Step 2—Select the FTP upload client.

a. From the Management Console, select Configuration > Access Logging > Logs > Upload Client.

b. From the Log drop-down list, select Main (by default, this is the bcreportерmain_v1 format).

c. In the Upload Client area, select FTP Client from the Client Type drop-down list.

Step 3—Connect to the FTP server.

a. Click Settings. The interface displays the FTP Client Settings dialog.

b. From the Settings drop-down list, select Primary FTP server.

c. Enter the Host FTP server IP address. The default Port value is 21; only change if the server uses a different port.

d. Enter the destination directory Path.

e. Enter the Username required for server access.

f. If a password is required for server access, click Change Primary Password and enter the credential.

g. Click OK.

Step 4—Select a log format.

In the Transmission Parameters area, select one of the following:

- Select gzip file to send compressed access log data. Blue Coat recommends this option, as most deployments process multiple Gigabytes (GB) of data.

- Select text file for log files that are Kilobytes (KB) in size rather than GB. This might be appropriate if performing a small sample test.

Step 5—Apply and Test.
a. Click **Apply** to save the configuration.

b. Click **Test Upload** to ensure that the ProxySG performs a successful connection and upload to the FTP server.

Blue Coat recommends deleting the test file.

Step 6—Begin log file uploads.

a. Select the **Upload Schedule** tab.

b. From the **Log** drop-down list, select **main**.

c. In the **Upload the Log File** area, click **Upload Now**.

d. Specify how often the ProxySG appliance uploads log files. Blue Coat recommends once per day.

e. Click **Apply**.

Step 7—Ensure log size accommodation.

On the **Configuration > Access Logging > General > Global Settings** tab, ensure that the value in the **Limit total system access logging to** field is large enough to accommodate your enterprise’s log files.
Create a Database

After configuring the ProxySG appliance to upload access logs to an FTP server, you can now create a Reporter database (and associated log source) that processes those access logs.

1. Access the Reporter interface with Admin credentials.
2. Click Administration (link in upper-right corner).
3. Select General Settings tab > Data Settings > Databases.
4. Create a new database.
   a. Click New. Reporter displays the Create New Database wizard.
   b. Set Type—Accept the default ProxySG (main) option and click Next.
   c. Name the database and click Next.
   d. Set the Default check for new log files, or how often this database queries for yet-to-be processed access logs. **Note:** You can configure each Log Source to use this default or process at different times.
   e. Click New Log Source. Reporter displays the Create New Log Source wizard.
5. Connect to the FTP server.
   a. Select FTP Server Source and click Next.
   b. Name the log source; click Next.
c. Enter the FTP server access credentials (Hostname/IP, Port, Username, and Password).

d. Enter the Directory Path to the log files on the FTP server.

e. The default File Pattern value is an asterisk (*). Consult the online help about searching for specific log files. For this initial task, Reporter processes all files with the .log or .log.gz extensions (and ignores all other extensions).

f. If the access log directories contain multiple sub-folders, select Process Subdirectories to ensure all content is processed). Click Next.

g. (Optional) Specify how often the this log source for new files (this setting takes precedence over the database schedule).

   - Use Database Default— Reporter checks the log source for new files.
   - Custom Schedule—Specify an alternate check time from the database default. For example, the database checks daily, but this log source only requires a weekly check.

Click Next.

h. Specify a post-processing action, or what happens to the log files after Reporter adds the data to the database.

   - Rename: Append '.done' to the filename— Reporter appends .done to the existing .gz or .log suffix. Note: If you delete the .done suffix, Reporter reprocesses the log file.
   - Move to folder— The files move to the specified directory.
   - Delete log file— Files are deleted from the FTP server directory. Only select this option if you are certain that you will never have the need to process these logs again.
Click **Done**. Reporter returns to the Create New Database wizard. Click **Next**.

6. Specify how long data remains in this database. Reporter purges data from the database at the specified dates and times.

   Reporter expires a database based on the amount of time since the last processed log entry—not when the database was *created.*

   Click **Next**.

7. Click **Done**; Reporter creates the new database with associated log source.

**Refer to Other Documentation**

With Reporter now deployed, refer to the *Reporter 10.x WebGuide* and the online Help for assistance with further configurations and use.