FORCEPOINT
POWERED BY Raytheon

V-Series Appliances: Getting Started

Web and Email Modes
Models: V10000 and V5000

v8.2.x

R042616820

Published 2016
Printed in the United States of America and Ireland

Trademarks

WinPcap

Contents

1 Getting Started with V-Series Appliances

Getting Started Guide | V-Series Appliance | Version 8.2.x

The V-Series appliance is a high-performance security appliance with a hardened operating system, optimized for analyzing web and email traffic and content.

The appliance offers:

- A command-line interface for initial appliance setup, available through a USB keyboard and monitor or a serial port connection, that provides basic appliance control commands
- The Appliance manager, a Web-based configuration interface that provides management features:
  - System dashboard, with current status of the software modules and system resources on the appliance
  - Appliance configuration and network settings
  - System administration tools for patch and hotfix management, troubleshooting, backup and restore, and account settings
- Event logging for appliance configuration and administration. Log entries can be viewed in the Appliance manager, and log files can be downloaded for later viewing.
- Access to subscribed web, email, and proxy features through web-based configuration interfaces
- Web protection, traffic analysis, and integrated proxy caching (if subscribed) after minimal initial configuration (Web mode)
- Integration with the cloud-based Web Hybrid module and off-appliance TRITON AP-DATA features (if subscribed, Web mode)
- Robust antivirus and antispam analysis and management of email (Email mode)
- Personal Email Manager, which allows end users to manage quarantined messages and individual permit/block lists (Email mode)
- Web and email suspicious file sandboxing and alerting (if subscribed) (TRITON AP-WEB and TRITON AP-EMAIL)

Important

Before performing the initial install and configuration, please read the V-Series Release Notes.

If you are preparing to upgrade an existing appliance, be aware that some older models of V-Series appliances do not support version 8.0.0, and higher. Please see the V-Series Release Notes.

Also, please review the release notes that correspond to the security software that you plan to run on your appliance.

- TRITON AP-WEB and Web Filter & Security
- TRITON AP-EMAIL

See, also TRITON Manager Release Notes.

Security Modes

Getting Started Guide | V-Series Appliance | Version 8.2.x

V-Series appliances can run in any one of the following security modes.

V10000 appliances:

Security mode	Module name
TRITON AP-WEB	TRITON AP-WEB
TRITON AP-EMAIL	TRITON AP-EMAIL
Web and Email	TRITON AP-WEB and TRITON AP-EMAIL or Web Filter & Security and TRITON AP-EMAIL

V5000 appliances:

Security mode	Module name
Web Filter & Security	Web Filter & Security
TRITON AP-WEB	TRITON AP-WEB

Security mode	Module name
TRITON AP-EMAIL	TRITON AP-EMAIL
Web and Email	Web Filter & Security and TRITON AP-EMAIL

You choose the security mode of an appliance during initial **firstboot** configuration. See *Perform initial command-line configuration*, page 15, for more information about **firstboot**.

Choosing a security mode in **firstboot** does not automatically enable the associated features. The features become fully enabled only when you enter a valid subscription key in the TRITON Manager. See *TRITON Manager*, page 6, for more information.

After **firstboot** is completed, if you want to change the security mode of an appliance, you must first restore it to its factory image. Then, run firstboot after re-imaging, and select a different security mode. See *Restoring to Factory Image*, page 41.

It is always a best practice to perform a full backup of the appliance and of each module prior to performing an upgrade or restoring to factory image. Note that if you change the security mode of an appliance after backing it up, the backup may or may not be applicable to the new mode. For example, you cannot restore from a backup file taken from Web Filter & Security (no proxy) to an appliance running TRITON AP-WEB (includes proxy).

For more information on the upgrade process, see the V-Series Upgrade Guide.

Software provided on the appliance

Web components

On an appliance running TRITON AP-WEB, Web Filter & Security, or Web and Email mode, the following core web components are pre-loaded for your convenience:

- Policy Database
- Policy Broker
- Policy Server
- Filtering Service
- User Service
- Usage Monitor
- Control Service
- Directory Agent

- State Server
- Multiplexer
- Network Agent
- Content Gateway (web proxy module; TRITON AP-WEB only)

Email components

On an appliance running in Email mode or Web and Email mode, the appliance contains the majority of email features, including the following services:

- Configuration Service
- Authentication Service
- Quarantine Service
- Log Service
- Update Service
- Filtering Service
- Mail Transfer Agent

Software that runs off-appliance

The TRITON components mentioned in this section must be installed off-appliance. Additionally, Microsoft SQL Server must be installed off-appliance.

The machine that hosts the core management components for all TRITON security solutions is referred to as the **TRITON management server**. This machine hosts the TRITON Manager, which includes:

- The infrastructure uniting all management components
- A settings database, holding administrator account information and other data shared by all management components
- One or more management modules, used to access configuration, policy management, and reporting tools for a Forcepoint security solution. Available TRITON Manager modules include:
  - Web
  - Data
  - Email

Additional components may also reside on the TRITON management server.

The TRITON management server can be hosted on any of the following 64-bit Windows operating systems:

- Windows Server 2008 R2

- Windows Server 2012
- Windows Server 2012 R2

Use the Installer to install any of the components mentioned here. See the Deployment and Installation Center for more information about components and installation instructions.

Web components

The following web components never run on the appliance. Some are Windows-only components.

- TRITON Manager (Web module only), includes:
  - TRITON Web Server
  - Settings Database
  - Investigative Reports Scheduler
  - Manager Web Server
  - Reporting Web Server
- Reports Information Service
- Web Security Log Server
- Real-Time Monitor
- Remote Filtering Server (Web Filter & Security only)
- Sync Service (for sites using the Web Hybrid module)
- Linking Service (for sites using any integrated TRITON AP-DATA features)
- Transparent identification agents (to apply user, group, or domain [OU] policies without prompting users for credentials)
  - DC Agent
  - Logon Agent
  - eDirectory Agent
  - RADIUS Agent

Note

TRITON Manager must run off-appliance, on a Windows Server 2008 R2, a Windows Server 2012, or a Windows Server 2012 R2 machine.

TRITON AP-DATA components

The following TRITON AP-DATA components run off-appliance.

- Data module of the TRITON Manager
- Protector
- Mobile Agent

- SMTP agent
- Microsoft ISA/TMG agent
- Endpoint agent
- Printer agent
- The crawler
- Integration agent

Email components

The following TRITON AP-EMAIL components never run on the appliance. They are Windows-only components.

- Email module of the TRITON Manager (see *TRITON Manager*, page 6)
- Data module of the TRITON Manager (see *TRITON Manager*, page 6). TRITON AP-DATA is required for email DLP (data leakage prevention) features.
- Email Log Server

TRITON Manager

The TRITON Manager is the web-browser-based, graphical management application for your entire deployment.

In addition to managing global settings and logging, it consists of three management modules: Web, Data, and Email. Each module is used to configure and manage its respective product features.

Depending on your subscription, one or more of these modules is enabled.

TRITON Manager must be able to reach the appliance's C interface (and the E1 interface, if the appliance is in Email mode or Web and Email mode).

Managing appliances in the Manager

The TRITON Manager provides a facility for managing TRITON APX appliances in your network. Appliances that are part of your TRITON installation are registered automatically on the TRITON console at **Appliances > Manage Appliances**. Information for each appliance includes:

- C interface IP address
- Hostname
- Security Mode (Web, Email, or both Web and Email)
- If Web mode is enabled, Policy source (Full, Limited, or Filtering Only)
- Software version (for example 8.2.0)
- Hardware platform (for example V5000 or V10000)
- Appliance description

See the TRITON Manager online Help for complete details.

TRITON Infrastructure

TRITON Infrastructure is comprised of common user interface, logging, and reporting components required by the TRITON modules.

TRITON Infrastructure also (optionally) includes SQL Server 2008 R2 Express that may be used for logging data. As a best practice, SQL Server 2008 R2 Express should be used only in non-production or evaluation environments. Full SQL Server should be used in production environments.

TRITON Infrastructure services include:

- TRITON Unified Security Center
- TRITON Central Access
- TRITON Settings Database
- TRITON Reporting Database (if using SQL Server 2008 R2 Express)

Web module of the TRITON Manager

The Web module of the TRITON Manager is used to perform general configuration tasks, set up policies, assign policies to users and groups, run reports, and other management tasks.

Web module services include:

- TRITON – Web Security (formerly ApacheTomcatWebsense)
- Web Reporting Tools (formerly Apache2Websense)
- Investigative Reports Scheduler
- Reports Information Service
- RTM Client
- RTM Database
- RTM Server

Access the Web module of the TRITON Manager by entering the following address in a supported browser:

```
https://<IP address>:9443/triton
```

- Replace <IP address> with the IP address of the server where you installed the TRITON Manager.
- Access to the Web module is secured with an SSL security certificate issued by Forcepoint LLC. Because the browser does not recognize Forcepoint LLC, as a known Certificate Authority (CA), a security warning is displayed.

Note

The TRITON Manager does not run on the appliance and must be installed on a Windows Server 2008 R2, a Windows Server 2012, or Windows Server 2012 R2 machine.

Data module of the TRITON Manager

The Data module of the TRITON Manager consolidates all aspects of TRITON AP-DATA and configuration, incident management, system status reports, and role-based administration.

Data services include:

- TRITON Data Security Management Server
- TRITON — Data Security
- Data Policy Engine
- Data Fingerprint Database
- Data Discovery and Fingerprint Crawler
- PreciseID and Data Endpoint Server

Email module of the TRITON Manager

The Email module of the TRITON Manager is used to configure and manage general system properties, administrator roles, user directories, email filtering, email policies, and Personal Email Manager end-user facility options. It is also used to generate and view email activity reports.

The off-appliance Email module consists of one service:

- TRITON — Email Security

Database management software

TRITON AP-WEB and TRITON AP-EMAIL products require Microsoft SQL Server to host their respective reporting databases, both called the Log Database. Both the Web module Log Database and the Email module Log Database can be hosted by the same database engine instance. Information stored in these databases is used to create reports.

Before you install either Log Server, SQL Server 2008 or 2012 must be installed and running on a machine in your network. See the Deployment and Installation Center for detailed information about supported editions of SQL Server. Note that SQL Server must be obtained separately; it is not included with your Forcepoint subscription. Refer to Microsoft documentation for installation and configuration instructions.

If you do not have SQL Server, you can use the Installer to install SQL Server 2008 R2 Express for evaluations. SQL Server 2008 R2 Express can be installed either on

the same machine as TRITON Manager or on a separate machine. See the Deployment and Installation Center for installation instructions.

> **Note**
> It is a best practice to use full SQL Server in production environments. SQL Server 2008 R2 Express is most appropriate for non-production or evaluation environments.

V-Series support for IPv6

Getting Started Guide | V-Series Appliance | Version 8.2.x

TRITON platforms and modules, including V-Series appliances, provide support for several IPv6 features.

V-Series support is provided in combination with Web Filter & Security and TRITON AP-WEB.

IPv6 is not supported with TRITON AP-EMAIL.

For Web Filter & Security, IPv6 support includes:

- Dual IP stack implementation on interfaces C and N
- IPv6 traffic to the Internet or clients on interfaces C and N, including block pages sent on C or N
- IPv6 static routes
- SNMP traps and counters for IPv6 data
- Network diagnostic tools in the Command Line Utility and Command Line Interface

For TRITON AP-WEB, support includes all of the above, plus:

- Dual IP stack implementation on interfaces P1 and P2
- Traffic to the Internet or clients on interfaces P1 and P2, and their bonded interface (E1/E2), if configured

Limits and restrictions:

- IPv6-only internal networks are not supported
- IPv4 must be used to communicate among V-Series appliances and with TRITON components

See Administrator Help for the Web Module and Content Gateway manager Help for details.

IPv6 configuration summary

IPv6 support is disabled by default.

IPv6 is enabled in the Appliance manager at the top of the **Configuration > Network Interfaces > IPv6** page. When it is enabled, all IPv6 support is enabled for all affected capabilities on the appliance.

In any field that accepts an IPv6 address, the address can be entered in any format that conforms with the standard. For example:

- Leading zeros within a 16-bit value may be omitted
- One group of consecutive zeros may be replaced with a double colon

When IPv6 is disabled, IPv6 values remain in the configuration files, but are not editable.

2 Setting Up V-Series Appliances

Getting Started Guide | V-Series Appliance | Version 8.2.x

Setting up a V-Series appliance involves the following tasks.

1. *Set up the appliance hardware*, page 11
2. *Perform initial command-line configuration*, page 15
3. *Configure the appliance*, page 19
4. *Install off-appliance or optional components*, page 40

Additional initial configuration steps may be necessary for your particular deployment. See the Deployment and Installation Center for more information.

Set up the appliance hardware

Getting Started Guide | V-Series Appliance | Version 8.2.x

The Quick Start poster packaged in the appliance shipping box shows you all items included in each appliance shipment. This 2-page poster explains how to set up the hardware and shows how to connect cables to the appliance and to your network. You can find V-Series Quick Start posters on Forcepoint.com here.

Review the sections that apply to your appliance model.

- *V10000 hardware setup*
- *V5000 hardware setup*
- *Serial port activation*

V10000 hardware setup

Getting Started Guide | V-Series Appliance | Version 8.2.x

The appliance's network interfaces must be able to access a DNS server and the Internet, as described below. This information varies slightly depending on the security mode you choose for the appliance.

- *V10000 with TRITON AP-WEB*
- *V10000 with TRITON AP-EMAIL*

- *V10000: Web and Email mode with TRITON AP-WEB*
- *V10000: Web and Email mode with Web Filter & Security (no Content Gateway)*

V10000 with TRITON AP-WEB

Network interface C must be able to access a DNS server. This interface typically has continuous access to the Internet. Essential databases are downloaded from Forcepoint servers through interface C (or optionally through P1).

- Ensure that interface C is able to access the download servers at **download.websense.com**. (As an alternative, some sites configure the P1 proxy interface to download the Master Database as well as other security updates. This change must be made in the Web module of the TRITON Manager. In that situation, interface C does not require Internet access.)
- Make sure the above address is permitted by all firewalls, proxy servers, routers, or host files controlling the URLs that the C interface can access.

V10000 with TRITON AP-EMAIL

Network interface E1 (and E2, if used) must be able to access a DNS server. These interfaces typically have continuous access to the Internet once the appliance is operational. Essential databases are downloaded from servers through these interfaces.

- Ensure that E1 (and E2, if used) are able to access the download servers at **download.websense.com**.
- Make sure the above address is permitted by all firewalls, proxy servers, routers, or host files controlling the URLs that the E1 (and E2) interfaces can access.
- Network interface E1 (and E2, if used) must be able to access the mail server.

V10000: Web and Email mode with TRITON AP-WEB

Network interfaces C, P1, and E1 (and E2, if used) must be able to access a DNS server. These interfaces typically have continuous access to the Internet. Essential databases are downloaded from Forcepoint servers through these interfaces.

- Ensure that interfaces C, P1, and E1 (and E2, if used) are able to access the download servers at **download.websense.com**. Note that some sites configure the P1 proxy interface (instead of the C interface) to download the Master Database as well as other security updates. This change must be made in the Web module of the TRITON Manager. In that situation, interface C does not require Internet access.
- Make sure the above addresses are permitted by all firewalls, proxy servers, routers, or host files controlling the URLs that the C, P1, and E1 (and E2, if used) interfaces can access.
- Network interface E1 (and E2, if used) must be able to access the mail server.

V10000: Web and Email mode with Web Filter & Security (no Content Gateway)

Network interfaces C and E1 (and E2, if used) must be able to access a DNS server. These interfaces typically have continuous access to the Internet. Essential databases are downloaded from servers through these interfaces.

- Ensure that interfaces C and E1 (and E2, if used) are able to access the download servers at **download.websense.com**.
- Make sure the above addresses are permitted by all firewalls, proxy servers, routers, or host files controlling the URLs that the C, E1, and E2 interfaces can access.
- Network interfaces E1 and E2 (if used) must be able to access the mail server.
- Network interface N must be connected to a mirror port on a router or switch.
- If interface N is used to send blocking information, then it must be connected to a *bi-directional* mirror port. Through the bi-directional mirror port, interface N not only monitors all client traffic but also sends blocking information if needed.

V5000 hardware setup

Getting Started Guide | V-Series Appliance | Version 8.2.x

The appliance's network interfaces must be able to access a DNS server and the Internet, as described below. This information varies slightly depending on the security mode you choose for the appliance.

- *V5000: TRITON AP-WEB*
- *V5000: TRITON AP-EMAIL*
- *V5000: Web Filter & Security (no Content Gateway)*
- *V5000: Web and Email mode with Web Filter & Security (no Content Gateway)*

V5000: TRITON AP-WEB

Network interface C must be able to access a DNS server. This interface typically has continuous access to the Internet. Essential databases are downloaded from servers through interface C.

- Ensure that interface C is able to access the download servers at **download.websense.com**. (As an alternative, some sites configure the P1 proxy interface to download the Master Database as well as other security updates. This change must be made in the Web module of the TRITON Manager. In this case, interface C does not require Internet access.)
- Make sure the above addresses are permitted by all firewalls, proxy servers, routers, or host files controlling the URLs that the C interface can access.

V5000: TRITON AP-EMAIL

Interface P1 (and P2, if used) must be able to access a DNS server. These interfaces typically have continuous access to the Internet once the appliance is operational. Essential databases are downloaded from Forcepoint servers through these interfaces.

- Ensure that P1 (and P2, if used) is able to access the download servers at **download.websense.com**.
- Make sure the above addresses are permitted by all firewalls, proxy servers, routers, or host files controlling the URLs that the P1 and P2 interfaces can access.
- Network interfaces P1 and P2 (if used) must be able to access the mail server.

V5000: Web Filter & Security (no Content Gateway)

Network interface C must be able to access a DNS server. Interface C must have continuous access to the Internet. Essential databases are downloaded from Forcepoint servers through this interface.

- Ensure that interface C is able to access the download servers at **download.websense.com**.
- Make sure the above address is permitted by all firewalls, proxy servers, routers, or host files controlling the URLs that the C interface can access.
- Network interface N must be connected to a mirror port on a router or switch.
- If interface N is used to send blocking information, then it must be connected to a *bi-directional* mirror port. Through the bi-directional mirror port, interface N not only monitors all client traffic but also sends blocking information if needed.

V5000: Web and Email mode with Web Filter & Security (no Content Gateway)

Interfaces C and P1 (and P2, if used) must be able to access a DNS server. These interfaces typically have continuous access to the Internet once the appliance is operational. Essential databases are downloaded from Forcepoint servers through these interfaces.

- Ensure that C and P1 (and P2, if used) are able to access the download servers at **download.websense.com**.
- Make sure the above addresses are permitted by all firewalls, proxy servers, routers, or host files controlling the URLs that the C, P1, and P2 interfaces can access.
- Network interfaces P1 and P2 (if used) must be able to access the mail server.

Serial port activation

Getting Started Guide | V-Series Appliance | Version 8.2.x

After hardware setup, connect directly to the appliance through the serial port or the monitor and keyboard ports. For serial port activation, use:

- 9600 baud rate
- 8 data bits
- no parity

The activation script, called firstboot, runs when you start the appliance.

See *Perform initial command-line configuration*.

After firstboot is run and the command-line shell is exited, accessing the appliance-command line shell requires the admin credentials (‘admin’ and the password you set during firstboot).

Perform initial command-line configuration

Getting Started Guide | V-Series Appliance | Version 8.2.x

Setting up a V-Series appliance involves 4 key tasks. This topic covers **Task 2**:

1. *Set up the appliance hardware*, page 11
2. *Perform initial command-line configuration*, page 15
   - *Gather the data*
   - *Run firstboot*
3. *Configure the appliance*, page 19
   - *Network interface configuration*
   - *Routing configuration*
   - *Alerting*
   - *Configuring web components*
4. *Install off-appliance or optional components*, page 40

Additional initial configuration steps may be necessary for your particular deployment. See the Deployment and Installation Center for more information.

The first time you start the appliance, a **firstboot** script prompts you to:

- select the security mode for the appliance
- supply settings for the network interface labeled C
- enter a few other general items, such as hostname and password

You are also asked whether you want to send feedback. Feedback data improves URL categorization. The default setting is “yes” (enabled). If you don’t want to send

feedback, simply enter “no” at the prompt. When you upgrade to a major new version, you may be prompted to confirm the setting. Again, the default is “yes.”

You are given the opportunity to review and change settings before you exit the **firstboot** script. After you approve the settings, the appliance mode is configured.

Later, if you want to change settings (except the security mode), you can do so through the Appliance manager user interface.

To change the security mode, re-image the appliance with the image from the Forcepoint Downloads site, and then run the **firstboot** script again.

Gather the data

Gather the following information before running the script. Some of this information may have been written down on the Quick Start poster during hardware setup.

Security mode	Be prepared to chose the web, email, or web and email modules that you want to install on the appliance. These must correspond to the products to which you subscribed.
Hostname (example: appliance.domain.com) 1 - 60 characters long. The first character must be a letter. Allowed: letters, numbers, dashes, or periods. The name cannot end with a period. If this is a TRITON AP-WEB appliance and Content Gateway will be configured to perform Integrated Windows Authentication, the hostname cannot exceed 11 characters (excluding the domain name). For more information, see the section titled Integrated Windows Authentication in Content Gateway Manager Help.	
IP address for network interface C	
Subnet mask for network interface C	

Default gateway for network interface C (IP address) *Optional* NOTE: If you do not provide access to the Internet for interface C, use the Web module of the TRITON Manager to configure P1 to download Master URL Database. Configure E1 or P1* to download antispam and antivirus database updates (Email mode). Configuring these interfaces to access the Internet for database downloads is done through the Appliance manager and through the TRITON Manager. See the Appliance manager Help for information about configuring the interfaces. See the Administrator Help for the Web module and the Administrator Help for the Email module for information about configuring database downloads. *On a V5000, use P1; there is no E1 interface.	
Primary DNS server for network interface C (IP address)	
Secondary DNS server for network interface C (IP address) *Optional*	
Tertiary DNS server for network interface C (IP address) *Optional*	
Unified password (8 to 15 characters) Include at least one of each of the following: ● Uppercase character ● Lowercase character ● Number ● Special character, such as ! # % & + / [ ] < = > Exclude all of the following: ● The user name of any appliance service account (e.g., admin, root, websense-ts, audit) ● Common appliance-related terms (e.g., appliance, filtering) ● The name of appliance and TRITON services (e.g., PolicyBroker or NetworkAgent) ● The device's hostname ● The special characters: space $: ` \ " Must not repeat the previous 3 passwords for the account This password applies to: In Web mode, and Web and Email mode ● Appliance manager ● Content Gateway manager (for sites using TRITON AP-WEB) In Email mode ● Appliance manager	

Integration method for this appliance (for sites using Web Filter & Security only). Choose one: ● Standalone (Network Agent only) ● Microsoft TMG ● Cisco ASA ● Citrix	Choose your third-party integration product (if any).
Send usage statistics?	Usage statistics from appliance modules can optionally be sent to Forcepoint to help improve the accuracy of categorization.

Run firstboot

Run the initial command-line configuration script (**firstboot**) as follows.

1. Access the appliance through a USB keyboard and monitor, or a serial port connection.

   Note

   To configure the appliance, connect through the serial port or the keyboard/video ports and complete the firstboot script. For serial port activation, use:

   - 9600 baud rate
   - 8 data bits
   - no parity

2. Accept the subscription agreement when prompted.
3. When asked if you want to begin, enter **yes** to launch the **firstboot** activation script.

   To rerun the script manually, enter the following command:

   ```
   firstboot
   ```

4. At the first prompt, select the web, email, or web and email modules that you want to install. You must have a subscription for these modules to make use of them.

   On a V10000 appliance, the choices are:

   - TRITON AP-WEB
   - TRITON AP-EMAIL
   - TRITON AP-WEB and TRITON AP-EMAIL
   - Web Filter & Security and TRITON AP-EMAIL

   On a V5000 appliance, the choices are:

   - TRITON AP-WEB
   - TRITON AP-EMAIL
   - Web Filter & Security
   - Web Filter & Security and TRITON AP-EMAIL

5. Follow the on-screen instructions to provide the information collected above.

After the activation script has been completed successfully, access the Appliance manager by opening a supported browser and entering this URL in the address bar:

```
https://<IP-address-of-interface-C>:9447/appmng/
```

You are now ready to move to this step: *Configure the appliance*

All TRITON management consoles support the following browsers:

- Microsoft Internet Explorer 9 (non-compatibility mode)
- Microsoft Internet Explorer 10 – 11 (standard mode)
- Microsoft Edge 15, 20, and 25
- Mozilla Firefox versions 4.4 – 44
- Google Chrome 13 – 49

Note

If you use Internet Explorer, ensure that Enhanced Security Configuration is switched off.

Compatibility View is not supported.

Configure the appliance

Getting Started Guide | V-Series Appliance | Version 8.2.x

Setting up a V-Series appliance involves 4 key tasks. This topic covers **Task 3**:

1. *Set up the appliance hardware*
2. *Perform initial command-line configuration*
3. *Configure the appliance*
   - *Network interface configuration*
   - *Routing configuration*
   - *Alerting*
   - *Configuring web components*
4. *Install off-appliance or optional components*

Skip to the next paragraph if you are setting up only TRITON AP-EMAIL. Before you configure an appliance for use with any web protection product, it is essential to note that one server in your network must serve as the **policy source** for all appliances running TRITON web protection software.

- Every web protection deployment must include a **policy source** machine. This can be an appliance or a Windows or Linux server that hosts at least 2 components: Policy Broker and Policy Database (also hosts Policy Server and may host additional components). All other appliances point to this machine and receive regular updates from it.

- You must set up the **policy source** machine first, because all appliances must point to it and be able to communicate with it.
- So, first configure a Windows or Linux **policy source** machine, or configure a **policy source** appliance, as described below. Then, configure the other appliances to point to it.

Note

If Policy Broker runs on a V-Series appliance, then only on-appliance instances of Policy Server can communicate with Policy Broker. In this case, Policy Server cannot be installed off-appliance. If Policy Broker is installed off-appliance, however, both on-appliance and off-appliance instances of Policy Server can communicate with it.

The Appliance manager is a web-based interface for the appliance. Use it to view system status, configure network and communication settings, and perform general appliance administration.

After completing the initial configuration required by the **firstboot** script, choose your **policy source** machine (for Web Filter & Security or TRITON AP-WEB) and then use the Appliance manager to configure important settings for network interfaces P1, P2, N, E1, and E2 (some interfaces are optional on some modes). Note that on a V5000 there are no E1 and E2 interfaces.

System Configuration

Access the Appliance manager through a supported browser.

Important

If any TRITON services are running in your network, stop all TRITON services before changing the time. Then, reset the time **and** make certain that the time is consistent across all servers running TRITON services. Finally, restart TRITON services.

If you do not stop the services first, client updates and policy changes entered after the time reset are not saved.

See the embedded Appliance manager Help for detailed instructions on any field, or for information about other available settings.

1. Open a supported browser, and enter the following URL in the address bar:

   ```
   https://<IP-address-of-C-interface>:9447/appmng
   ```

   (See *Perform initial command-line configuration*.)
2. Log on with the user name **admin** and the password set during initial appliance configuration.

3. In the left navigation pane, click **Configuration > System**.
4. Under **Time and Date**:
   - Use the **Time zone** list to select the time zone to be used on this system.

     GMT (Greenwich Mean Time), the default, is also known as UTC (Universal Time, Coordinated). Other time zones are calculated by adding or subtracting from GMT. GMT is sometimes chosen to provide a common time stamp for geographically distributed systems.
   - Use the **Time and date** radio buttons to indicate how you want to set the date.

     Time is set and displayed using 24-hour notation.
     - To synchronize with an Internet Network Time Protocol (NTP) server (www.ntp.org), select the **Automatically synchronize** option and enter the address of a primary NTP server. The secondary and tertiary fields are optional.

       Important

       If you synchronize the system clock with an NTP server, NTP protocol packets and their response packets must be allowed on any firewall or NAT device between the appliance and the NTP server. Ensure that you have outbound connectivity to the NTP servers. Add a firewall rule that allows outbound traffic to UDP port 123 for the NTP server.

       If interface C on this appliance is not connected to the Internet, then you must provide a way for interface C to reach an NTP server. One solution is to install an NTP server on the local network where interface C can reach it.
     - To set the time yourself, select the **Manually set** option and change the value in the Date and Time fields. Use the format indicated below the entry field.
5. Create or edit a unique **Appliance description** to help you identify and manage the system, particularly when there will be multiple appliances deployed.

   The description is displayed in the appliance list in the TRITON Manager when the appliance is added there.
6. Click **OK**.

   In each section that allows changes, **OK** saves and applies the new values. **Cancel** discards changes and restores entry field values to their current settings.
7. Proceed to *Network interface configuration*.

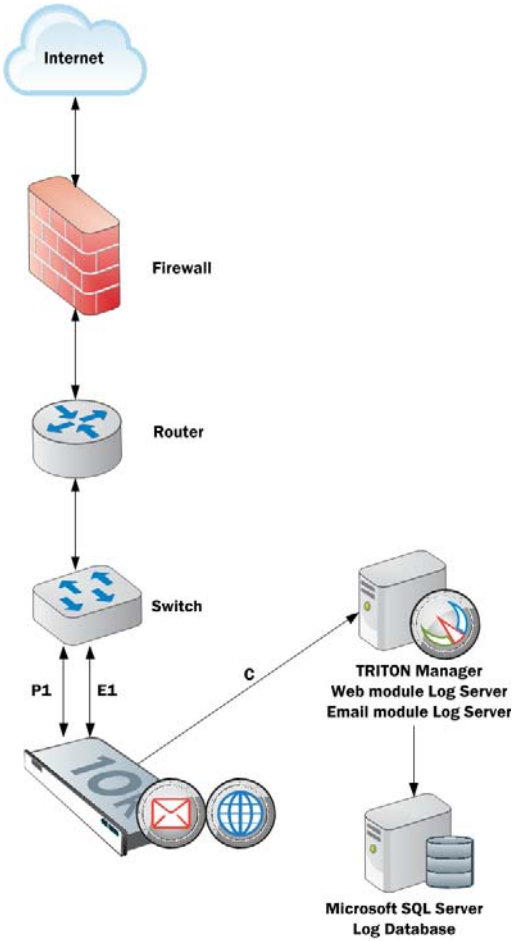
Network interface configuration

Getting Started Guide | V-Series Appliance | Version 8.2.x

Use the **Configuration > Network Interfaces IPv4** and **IPv6** pages to specify the IP address, subnet mask, default gateway, and DNS addresses for each network interface on the appliance.

With TRITON AP-EMAIL use the **Configuration > Network Interfaces > Virtual Interfaces** page to support multiple domains or a large volume of outbound traffic. See *Email module virtual interfaces*, page 28.

- *Appliance Controller Interface (C)*
- *Content Gateway Interfaces (P1 and P2)*
- *Network Agent Interface (N)*
- *TRITON AP-EMAIL Interfaces (E1 and E2, or P1 and P2)*
- *Interface bonding*



Appliances with TRITON AP-WEB support IPv6 addresses for C, P1, P2, and N.

Appliances with TRITON AP-EMAIL **do not** support IPv6 addresses for E1 and E2.

For more information about IPv6 support, see *V-Series support for IPv6*.

Click **OK** to save and apply new values in each section.

Appliance Controller Interface (C)

Getting Started Guide | V-Series Appliance | Version 8.2.x

The Appliance Controller interface (C), already assigned during **firstboot**:

- Communicates with all TRITON management interfaces
- Communicates with the TRITON AP-DATA management server
- Provides inter-appliance communication
- Transports (optionally) non-HTTP and non-HTTPS protocol enforcement
- Handles Master Database downloads via the Internet (unless your site uses P1 for database downloads).

Important

Changing the C interface IP address significantly impacts the deployment and may require reinstallation of some components.

If your appliance is in production and you need to change the C interface IP address, see the embedded Appliance manager Help system for guidance.

Guidelines for configuring network interface C

IP address (C interface)	Required. This interface typically requires continual access to the Internet, though some sites use P1 for all communication with the Internet. If you change the IP address of the C interface, the update process may take about 10 minutes. After the IP address is changed, you are redirected to a logon page. Enter your user name and password. The **Status > General** page will show that the services are starting up. Wait for all required services to start (optional services include: Directory Agent, State Server, and Multiplexer).
Subnet mask (C)	Required.
Default gateway (C)	Optional. IP address of the router that allows traffic to be routed outside of the subnet.
Primary DNS (C)	Required. IP address of the domain name server.

Secondary DNS (C)	Optional. Serves as a backup in case the primary DNS is unavailable.
Tertiary DNS (C)	Optional. Serves as a backup in case the primary and secondary DNSes are unavailable.

Content Gateway Interfaces (P1 and P2)

Getting Started Guide | V-Series Appliance | Version 8.2.x

The Content Gateway interfaces (P1 and P2) handle traffic directed to and from the Content Gateway proxy module.

- Both the P1 and P2 proxy interfaces can be used to accept users' Internet requests (inbound traffic) and communicate with web servers (outbound traffic). In other words, both interfaces can be configured to handle traffic into and out of the proxy module.
- A typical configuration is to use P1 for both inbound and outbound traffic; P2 is not used.
- Another option is to configure P1 to accept users' Internet requests (inbound only). In this case, P2 is configured to communicate with web servers (outbound).

Important

If you use the P2 interface, the P1 interface is bound to eth0, and the P2 interface is bound to eth1. Keep this in mind when you configure Content Gateway.

For example, suppose you are using a transparent proxy deployment, and the P1 interface is connected to a WCCP router. In this case, you must configure Content Gateway to use eth0 for WCCP communications (in Content Gateway Manager, see the General tab of the **Configure > Networking > WCCP** page).

Guidelines for configuring network interfaces P1 and P2

General guideline	If you use both P1 and P2, the default gateway is automatically assigned to P2 (which is bound to eth1). Ensure that outbound packets can reach the Internet.
IP address (P1 or P2 interface)	Required.
Subnet mask	Required.

Default gateway	Required. The gateway must be in the same subnet as the IP address of the interface (P1 or P2) used for communicating with the Internet (outbound traffic). Ensure that outbound packets can reach the Internet.
Primary DNS	Required. IP address of the domain name server.
Secondary DNS	Optional. Serves as a backup in case the primary DNS is unavailable.
Tertiary DNS	Optional. Serves as a backup in case the primary and secondary DNSes are unavailable.

Network Agent Interface (N)

Network Agent is a software component used to provide security for protocols other than HTTP and HTTPS. It provides bandwidth optimization data and enhanced logging detail.

Network Agent continually monitors overall network usage, including bytes transferred over the network. The agent sends usage summaries to other TRITON software at predefined intervals.

Network Agent is typically configured to see both inbound and outbound traffic in your network. The agent distinguishes between:

- Requests sent from internal machines to internal machines (hits to an intranet server, for example)
- Requests sent from internal machines to external machines such as web servers (user Internet requests, for example)

You choose whether blocking information for non-HTTP protocols is routed through interface C or interface N.

Guidelines for configuring network interface N

Select an interface to use to send blocking information for non-HTTP and HTTPS traffic	• Select **Interface C** only if you want to use interface C to send blocking information. • Select **Interface N** if network interface N is connected to a bidirectional span port, and you want to use N to transport blocking information. Blocking NIC settings configured in the Web module of the TRITON Manager do not override the settings you enter in this pane. The settings in Appliance manager take precedence.
IP address of interface N	Required. Network Agent should be able to see the outbound and inbound traffic in your network. Network Agent ignores ports 80, 443, 8070, and 8080.
Subnet mask	Required if interface N is selected. Otherwise the subnet mask has a fixed value of 255.255.255.255.
Default gateway	Required if Interface N is checked. Otherwise, the field is disabled.
Primary DNS	Required. IP address of the domain name server.
Secondary DNS	Optional. Serves as a backup in case the primary DNS is unavailable.
Tertiary DNS	Optional. Serves as a backup in case the primary and secondary DNSes are unavailable.

Network Agent can instead be installed on a different server in the network.

TRITON AP-EMAIL Interfaces (E1 and E2, or P1 and P2)

TRITON AP-EMAIL interfaces handle traffic into and out of the TRITON AP-EMAIL module. Set up interfaces E1, E2, and C correctly before deploying off-appliance components.

Note

The names of the interfaces vary depending on the model of V-Series appliance.

- On V10000, E1 and E2 are used.
- On V5000, P1 and P2 are used.

- Both the E1 and E2 interfaces can be used to accept inbound traffic and send outbound traffic. On V5000, use P1 and P2.

- A typical configuration is to use E1 (P1) for both inbound and outbound traffic; E2 (P2) is not used.
- Another option is to configure E1 (P1) to accept inbound and E2 (P2) to send outbound traffic.
- When you need to support a large volume of outbound traffic, you can configure virtual interfaces on E1 or E2 (P1 or P2).

Important

On the V10000, if you use the E2 interface, the E1 interface is bound to eth0, and the E2 interface is bound to eth1. Keep this in mind when you configure TRITON AP-EMAIL.

On the V5000, if you use the P2 interface, the P1 interface is bound to eth0, and the P2 interface is bound to eth1. Keep this in mind when you configure TRITON AP-EMAIL.

Guidelines for configuring network interfaces E1 and E2

Note

On a V5000, substitute P1 for E1 and P2 for E2.

If you use both E1 and E2, and you locate them in the same subnet, then the default gateway is automatically assigned to E2 (which is bound to eth1). Ensure that outbound packets can reach the Internet.

IP address (E1 or E2 interface)	Required. E1 is used by default to connect to SQL Server for reporting. If E1 does not have a valid IP address or does not have DNS access, then TRITON AP-EMAIL cannot resolve the SQL Server hostname and cannot create a connection with SQL Server. Off-box installation of the management console is then blocked. On a V5000, substitute P1 for E1.
Subnet mask	Required.
Default gateway	Required. The gateway must be in the same subnet as the IP address of the interface (E1 or E2) used for communicating with the Internet (outbound traffic). If you use both E1 and E2, and you locate them in the same subnet, then the default gateway is automatically assigned to E2 (which is bound to eth1). Ensure that outbound packets can reach the Internet.

Primary DNS	Required. IP address of the domain name server.
Secondary DNS	Optional. Serves as a backup in case the primary DNS is unavailable.
Tertiary DNS	Optional. Serves as a backup in case the primary and secondary DNSes are unavailable.

Email module virtual interfaces

Multiple virtual IP addresses can be configured on E1 or E2.

- Virtual IP addresses are used for outbound traffic only.
- Virtual IP addresses are bound to the specified physical interface.
- Virtual IP addresses must be in the same subnet as the specified physical interface.
- A maximum of 10 virtual IP addresses can be specified for each physical interface (E1 and E2).

Multiple virtual interfaces can be helpful to support multiple domains or a large volume of outbound traffic.

To add virtual IP addresses to E1 or E2:

1. Go to **Configure > Network Interfaces > Virtual Interfaces** and click **Add**.
2. Select E1 or E2. If E2 has not been configured, it is not offered.
3. In the Virtual IP address entry field enter one IPv4 address per line.
4. Click **Add Interfaces**.

If you are not configuring interface bonding at this time, proceed next to *Routing configuration*.

Interface bonding

Getting Started Guide | V-Series Appliance | Version 8.2.x

V10000 appliances that run one module only— TRITON AP-WEB or TRITON AP-EMAIL—can bond interfaces for failover or load balancing. Configuration details are provided below.

Interface bonding is not supported on V5000 appliances.

IMPORTANT: Do not bond interfaces that have different speeds or duplex modes. Doing so can result in performance problems.

V10000 with TRITON AP-WEB only

Interfaces E1 and E2 can be cabled to your network and then bonded through software settings to a Content Gateway interface, with E1 optionally bonded to P1, and E2 optionally bonded to P2. No other pairing is possible.

Interface bonding provides these alternatives:

- Active/Standby mode: P1 (or P2) is active, and E1 (or E2) is in standby mode. Only if the primary interface fails would its bonded interface (E1 or E2) become active.
- Load balancing: If the switch or router that is directly connected to the V10000 supports load balancing (etherchannel, trunk group, or similar), then traffic to and from the primary interface can be balanced between the primary interface and its bonded interface (E1 or E2).

You can choose to bond or not bond each Content Gateway interface (P1 and P2) independently. You do not have to bond at all.

If you do bond an interface (P1 or P2), choose one mode for that bonding (either active/standby or load balancing). You do not have to choose the same bonding mode for both.

Ensure that all interfaces are cabled properly before bonding. Do not bond interfaces that have different speeds or duplex modes. Doing so can result in performance problems.

V10000 with TRITON AP-EMAIL only

Interfaces P1 and P2 can be cabled to your network and then bonded through software settings to a TRITON AP-EMAIL interface, with P1 optionally bonded to E1, and P2 optionally bonded to E2. No other pairing is possible.

Interface bonding provides these alternatives:

- Active/Standby mode: E1 (or E2) is active, and P1 (or P2) is in standby mode. Only if the primary interface fails would its bonded interface (P1 or P2) become active.
- Load balancing: If the switch or router that is directly connected to the V10000 supports load balancing (etherchannel, trunk group, or similar), then traffic to and from the primary interface can be balanced between the primary interface and its bonded interface (P1 or P2).

You can choose to bond or not bond each TRITON AP-EMAIL interface (E1 and E2) independently. You do not have to bond at all.

If you do bond an interface (E1 or E2), choose one mode for that bonding (either active/standby or load balancing). You do not have to choose the same bonding mode for both.

Ensure that all interfaces are cabled properly before bonding. Do not bond interfaces that have different speeds or duplex modes. Doing so can result in performance problems.

Routing configuration

Use the **Configuration > Routing** page to specify:

- Static routes from subnets and client computers through any active appliance interface, except N. If IPv6 is enabled, static IPv6 routes can also be added and imported.
- Module routes from appliance modules through appliance interface C to subnets. IPv6 module routes are **not** supported.

Configuring static routes

- Static routes can be specified for any active interface on the appliance, except N, which is dedicated to Network Agent and cannot be routed.
- The same route cannot be added for 2 different interfaces on the same module. If attempted, the appliance displays an error.
- Static routes that are defined for an interface that is later made inactive remain in the routing table, and are displayed in gray to indicate that the routes are inactive.
- Static routes that become invalid because the IP address of the interface changes are disabled and displayed in red.
- Static routes can be added and deleted, but not modified. To modify a route, delete it and add a new route specifying the new values.
- When a static route is added, imported, or deleted, the services associated with the module that manage the specified interface must be restarted. For example, if static routes are added to interface P1, when the additions are complete, all Content Gateway services must be restarted.
- The static route table has a maximum limit of 5000 entries.

Adding static routes

Static routes can be added one at a time, or many at a time using an import file.

When a static route is added, data entered in each field is validated by the appliance, and an error message is displayed if there is an inconsistency in the route.

To add static routes:

1. Go to the **Configuration > Routing** page, select the IPv4 or IPv6 tab, and click **Add/Import** under **Static IPv4 Routes** or **Static IPv6 Routes**.

2. **To manually add a single route**, select the **Add individual route** radio button, enter values for all fields, and then click **Add Route**.

Destination Network	Required. Specify the subnet IP address for which traffic will be routed.
Subnet Mask (IPv4) or Subnet prefix length (IPv6)	Required. The subnet mask or prefix for the network where the clients reside (such as 255.255.0.0, or 64)
Gateway	Required. IP address providing access from the proxy subnet to the client subnet. This address must be on the same subnet as the appliance.
Interface	Required. The appliance interface to be used for the static route. Only active interfaces are offered in the drop down list.

3. **To add multiple routes using an import list file**:
   a. Prepare the import file. See **Import file specifications**, below.
   b. Select the **Import route file** radio button.
   c. Specify the full path and file name, or **Browse** to locate the file. Click **Import Route** to import the routes specified in the file.

      The appliance reads the file, validates each route, and reports errors for lines that are invalid.

      Duplicate route entries are ignored; duplicate entries are not created.

      If the number of routes in the file, combined with the number of existing routes exceeds the 5000 route table limit, the import fails. No routes are added and an error message displays.

Import file specifications:

1. The file must be a plain text file. (Most routers export route tables to a plain text file.)
2. The file can contain comment lines. Comment lines begin with "#".
3. A line that defines a route must include the following 4 fields in the order shown. Each field must be separated by a space.

   For IPv4:

   ```
   destination netmask default-gateway interface
   ```

   Destination is a subnet address or host IP address.

   Netmask determines the proper value of *destination*.

   Default-gateway is the next hop.

   Interface is the appliance interface through which traffic is routed. The specified interface must be enabled. If it is disabled, the appliance reports an error and does not add the route.

For IPv6:

```
destination prefix-length default-gateway interface
```

Destination is a subnet address or host IP address.

Prefix-length determines the proper value of *destination*.

Default-gateway is the next hop.

Interface is the appliance interface through which traffic is routed. The specified interface must be enabled. If it is disabled, the appliance reports an error and does not add the route.

Exporting the route table

To export the route table to a text file, click **Export Table**. Use the Browse dialog to specify a location and name for the file.

All routes in the table, whether enabled or disabled, are exported.

The file is formatted as described above for import files.

Configuring component routes

In some deployments it is necessary or desirable to route some web or email traffic through the appliance C interface (typically web and email traffic is routed through separate, dedicated interfaces (P1/P2, E1/E2) and C is reserved for management traffic). However, some sites might want to route authentication (or other) traffic through the C interface. This is accomplished by defining component routes on the **Configuration > Routing** page.

The component route table has a maximum limit of 5000 entries.

Adding a component route

1. In the Component Route section of the **Configuration > Routing** page, click **Add**.
2. Specify a value for each field and click **Add Route**.

Module	Required. Select a module from the drop down list. The list displays only modules installed on the appliance. The Network Agent module may be installed, but will not appear in the list.
Destination Network	Required. Specify the subnet IP address for which traffic will be routed.
Subnet mask	Required. The subnet mask for the destination subnet.

Note

It is the responsibility of the administrator to verify that the endpoint on the Destination Network is available on the subnet.

Alerting

Use the **Configuration > Alerting** page to enable and configure SNMP alerting.

There are 2 methods of SNMP alerting that you can enable on the **Setup** tab:

- Allow your SNMP manager to poll the appliance for standard SNMP counters (see *Enable SNMP polling (monitoring)*).
- Configure the appliance to send SNMP traps for selected events to your SNMP manager (see *Enable SNMP traps*).

  After enabling the SNMP trap server on the appliance, use the **Alerts** tab to configure which events cause a trap to be sent. See *Enable specific alerts*, page 34.

Enable SNMP polling (monitoring)

1. Under Monitoring Server, click **On**.
2. Select the **SNMP version** (v1, v2c, or v3) used in your network.
   - With SNMP v1 and v2c, a suffix (-proxy, -web, -na, or -email) is appended to the community name to indicate the originating module for the counter.
   - With SNMP v3, you can specify the context name (Proxy, Web, NA, or Email) to poll counters for each module.
3. If you selected v1 or v2c, provide the **Community name** for the appliance, and then click **OK**.

   You have completed your SNMP monitoring configuration.
4. If you selected v3, select the **Security level** (None, Authentication only, or Authentication and Encryption) used in your network, and the **User name** to associate with SNMP communication.
5. If you selected a security level that includes authentication, also enter the **Password** for the selected user name, then select the **Authentication protocol** (MD5 or SHA).
6. If you selected authentication and encryption, select the **Encryption protocol** (DES or AES), and then enter and confirm the **Encryption key** used for encryption.
7. Click **OK** to implement your changes.

Enable SNMP traps

Before enabling the appliance to send SNMP traps, download the **appliance MIB file** using the link in the Trap Server section of the **Configuration > Alerting** page. The MIB file must be installed in your SNMP manager before it can interpret traps sent by the appliance.

When you are ready for the appliance to start sending SNMP traps:

1. Under Trap Server, click **On**, and then select the SNMP version (v1, v2c, or v3) used in your network.
2. For SNMP v1 or v2c, provide the following information:
   - The **Community name** to associate with traps sent by the appliance
   - The IP address and port used by your SNMP manager.
3. To verify your configuration, click **Send Test Trap**. If the test trap succeeds, click **OK** to apply and save your changes. See *Enable specific alerts*, page 34, to configure which events cause a trap to be sent.

   If there is a problem sending the test trap, verify the community name, IP address, and port, and make sure that the network allows communication between the appliance C interface and the SNMP manager.
4. For SNMP v3, enter the **Engine ID** and **IP address** of your SNMP manager, as well as the **Port** used for SNMP communication.
5. Select the **Security level** (None, Authentication only, or Authentication and Encryption) used in your network, and the **User name** to associate with SNMP communication.
6. If you selected a security level that includes authentication, also enter and confirm the **Password** for the selected user name, then select the **Authentication protocol** (MD5 or SHA).
7. If you selected authentication and encryption, select the **Encryption protocol** (DES or AES), and then enter the **Encryption key** used for encryption.
8. To verify your configuration, click **Send Test Trap**. If the test trap succeeds, click **OK** to implement your changes. See *Enable specific alerts*, page 34, to configure which events cause a trap to be sent.

   If there is a problem sending the test trap, verify the community name, IP address, and port, and make sure that the network allows communication between the appliance and the SNMP manager.

Enable specific alerts

The appliance can send traps for each of its modules: Appliance Controller, Content Gateway, TRITON AP-WEB, Web Filter & Security, Network Agent, and TRITON AP-EMAIL. The Alerts tab of the **Configuration > Alerting** page lists the alerts associated with only the modules that you have enabled.

A table for each module lists:

- The hardware or software **Event** that triggers the alert (for example, a network interface link going down or coming up, or a TRITON service stopping).
- The **Threshold**, if applicable, that defines the alert condition (for example, CPU usage exceeding 90%, or free disk space reaching less than 10% of the total disk size).
- The **Type** of alert (system resource or operational event).

- Whether or not an SNMP trap is sent when the event occurs or the threshold is reached.

To enable all alerts for a module, select the check box next to **SNMP** in the table header. All check boxes in the column are selected.

Otherwise, mark the check box next to an event name to enable SNMP alerts for that event. To disable alerts for an event, clear the associated check box.

Time-based thresholds: Most of the events that have a configurable threshold also have a configurable time-based threshold, specified in minutes. When the time-based threshold is set and both thresholds are exceeded, an alert is sent. To enable time-based thresholds, select the **Enable time-based thresholds** check box at the top of the page. The time-based threshold is enabled on every event for which it is configurable.

Event-cleared alerts: In addition to generating event condition alerts, you can configure alerts to be sent when conditions return below the threshold. These are called **event-cleared alerts**. To enable event-cleared alerts, select the **Generate event-cleared alerts** check box at the top of the page.

The following events do not generate event-cleared alerts:

- Hostname change
- IP address change
- Scheduled backup failure
- SNMP authentication failure

When you have finished configuring alerts, click **OK** to implement the changes.

Proceed next to *Configuring web components*.

Configuring web components

1. Be sure that you have selected your **policy source** machine before starting to complete this section. The **policy source** is the machine where appliances get Web module global configuration and policy information. If a Windows or Linux server will be the **policy source** machine in your network, set it up first, so that you can point the V-Series appliances to it.
2. Use the **Configuration > Web Components** page to specify which web components are active on this appliance, and where the appliance gets web global configuration and policy information. Also specify the location of the Web module of the TRITON Manager
   - Under **Policy Source**, select which web configuration is used on this appliance: **Full policy source** (default; see *What is a policy source?*), **User directory and filtering**, or **Filtering only** (see *What if an appliance is not the policy source?*). If this is a Full policy source appliance, it acts as both the Policy Broker and a Policy Server.

- If this is a User directory and filtering appliance, it also includes a Policy Server. Enter the IP address of the Policy Broker appliance or server.
- If this is a Filtering only appliance, enter the IP address of a Policy Server. It does not have to be the IP address of the Policy Broker machine.

3. The TRITON Manager (management consoles) must be installed on a Windows Server 2008 R2 64-bit or Windows Server 2012 machine. Identify this machine here by IP address.
4. Click **OK** to save and apply your changes.

What is a policy source?

Getting Started Guide | V-Series Appliance | Version 8.2.x

Every TRITON AP-WEB deployment must include a **policy source**. This is an appliance or other server that hosts at least 2 components: Policy Broker and Policy Database (Policy Server must also be present; additional components are often installed). All other appliances or other servers point to this machine and receive regular updates from it. This appliance (or other server) is called the **policy source**.

Policy Broker is the component that controls access to global configuration information and policy data consumed by other components. Policy Broker can be deployed in a standalone configuration or in a replicated configuration.

- In a **standalone** configuration, there is one Policy Broker for the entire deployment. All Policy Servers connect to the same Policy Broker.
  In a standalone deployment, Policy Broker can reside on a Windows or Linux server, or a Forcepoint appliance.
- In a **replicated** configuration, there is one **primary** Policy Broker, to which configuration and policy changes are saved, and one or more **replica** instances, each with its own read-only copy of the configuration and policy data. Each Policy Server can be configured to specify whether it attempts to connect to the primary Policy Broker or a replica instance at startup.

  In a replicated configuration, Policy Broker **cannot** reside on an appliance. The primary Policy Broker and all replica instances must be hosted by a Windows or Linux server.

When Policy Broker replication is enabled, if the primary Policy Broker machine fails, all components connect to replica Policy Broker instances and continue to run normally, using the read-only configuration and policy data stored by the replica.

- When a TRITON AP-WEB only appliance is configured as a **policy source**, all available web components run on that appliance, including.
  - Filtering Service
  - Policy Database
  - Policy Broker
  - Policy Server
  - User Service
  - Directory Agent (required for hybrid service)

- State Server (optional; disabled by default)
- Multiplexer (disabled by default; unavailable when the appliance is Filtering only)
- Usage Monitor
- Control Service
- Content Gateway module
- Network Agent module (optional)

Windows-only services, like Log Server, TRITON Manager, and optional services like transparent identification agents, still run on other machines.

- A non-appliance **policy source** is a server hosting **Policy Broker**. The Policy Database is automatically created and run on the Policy Broker machine. This machine typically also includes a Policy Server instance, and may include additional TRITON software components.

The Policy Database holds all web module policies (including client definitions, filters, and filter components) for all appliances and all domains in the network. It also holds global configuration information that applies to the entire deployment.

What if an appliance is not the policy source?

Getting Started Guide | V-Series Appliance | Version 8.2.x

A V-Series appliance that is not serving as the policy source can be designated to run either **User directory and filtering** or **Filtering only**.

- A **User directory and filtering** appliance is a lightweight version of the policy source machine. It runs:
  - Policy Server
  - User Service
  - Usage Monitor
  - Filtering Service
  - Control Service
  - Directory Agent
  - Content Gateway module (if TRITON AP-WEB is used)
  - Network Agent module (required for Web Filter & Security; optional for TRITON AP-WEB)

  Having User Service and Policy Server on remote appliances means that you are able to obtain local network user names. Latency between User Service and Policy Server is eliminated, because both run on the same appliance.

  Whenever you make a policy change, that change is immediately updated on the policy source appliance. The change is pushed out to user directory and filtering appliances within 30 seconds.

  These appliances can continue handling traffic for as long as 14 days if their connection with the policy source machine is interrupted. So even if a network connection is poor or is lost, traffic processing continues as expected.

A **User directory and filtering** appliance is configured to point to the full policy source for updates.

- A **Filtering only** appliance does not run Policy Server. It runs only:
  - Filtering Service
  - Control Service
  - Content Gateway module (if TRITON AP-WEB is used)
  - Network Agent module (required for Web Filter & Security; optional for TRITON AP-WEB)

  A **Filtering only** appliance is configured to point to a Policy Server. This works best when the appliance is close to the Policy server and on the same network.

  These appliances require a continual connection to the centralized Policy Server, not only to stay current, but also to continue handling traffic. If the connection to the Policy Server becomes unavailable for any reason, traffic on a **Filtering only** appliance can continue to be handled for up to 3 hours.

  If the Policy Server machine is on a remote network, with a WAN connection, it can be difficult to obtain user name/IP address maps for the local users.

User directory with V-Series appliances

Getting Started Guide | V-Series Appliance | Version 8.2.x

If your organization relies on user identification or authentication, each appliance that is running TRITON User Service must be configured to talk to a user directory. Multiple appliances can talk to the same user directory, or to different user directories.

Preparing for a hybrid configuration

In TRITON AP-WEB environments with the Web Hybrid module, some users may be filtered by the hybrid (cloud) service. In this situation, an interoperability component on the appliance called **Directory Agent** is required to enable user-, group-, and domain- (OU) based policy enforcement.

Directory Agent must be able to communicate with:

- A supported LDAP-based directory service:
  - Windows Active Directory® (Mixed Mode)
  - Windows Active Directory (Native Mode®)
  - Oracle (Sun Java™) System Directory
  - Novell eDirectory
- **Sync Service**

After deployment, use Web module of the TRITON Manager to configure User Service and Directory Agent.

- User Service configuration is performed on the Settings > General > Directory Services page.

- Directory Agent configuration is performed on the Settings > Hybrid Configuration > Shared User Data page.
  - You can have multiple Directory Agent instances.
  - Each Directory Agent must use a unique, non-overlapping root context.
  - Each Directory Agent instance must be associated with a different Policy Server.
  - All Directory Agent instances must connect to a single Sync Service. (A deployment can have only one Sync Service instance.)
  - You must configure the Sync Service connection manually for all supplemental Directory Agent instances (these are the Directory Agents running on User Directory and filtering, and Filtering only appliances). Communication is configured automatically for the Directory Agent instance that connects to the same Policy Server as Sync Service. See the Administrator Help for the Web module for details.

You can configure Directory Agent to use a different root context than User Service, and to process its directory data differently than User Service. Also, with Windows Active Directory, if User Service is configured to communicate with multiple global catalog servers, Directory Agent can communicate with all of them.

Redundancy

Web traffic management requires interaction between several software components:

- User requests for Internet access are proxied and analyzed by Content Gateway.
- User requests for Internet access may also be managed by Network Agent.
- The requests are sent to TRITON AP-WEB Filtering Service for processing.
- Filtering Service communicates with Policy Broker to apply the appropriate policy in response to the request.

In some networks, additional machines may be used to deploy additional instances of Content Gateway, Filtering Service, Network Agent, or other components. For example, in a large, segmented network, you may need a separate Network Agent for each segment. Or, you might deploy Logon Agent on a separate computer, to enable transparent identification of users logging on to Windows domains.

Check the Forcepoint Deployment and Installation Center for component distribution options. Contact your Forcepoint Sales Engineer, or your authorized Forcepoint reseller, for assistance in planning a more complex deployment.

Install off-appliance or optional components

Setting up a V-Series appliance involves 4 key tasks. This topic covers **Task 4**:

1. *Set up the appliance hardware*
2. *Perform initial command-line configuration*
3. *Configure the appliance*
   - *Network interface configuration*
   - *Routing configuration*
   - *Alerting*
   - *Configuring web components*
4. *Install off-appliance or optional components*

After the appliance has been configured, install the remaining off-appliance components you plan to use.

NOTE: Before deploying off-appliance components, be sure to use the Appliance manager to configure the appliance interfaces that you plan to use [C, P1, P2 (optional), E1, and E2 (optional)]. At sites using TRITON AP-EMAIL, E1 is used by default to connect to SQL Server for reporting. If E1 does not have a valid IP address or does not have DNS access, then TRITON AP-EMAIL cannot resolve the SQL Server hostname and cannot create a connection with SQL Server. In that situation, off-box installation of the management console is blocked. (On a V5000, substitute P1 for E1.)

See *Software that runs off-appliance*, page 4, for more information about these components. Run the Installer (in custom installation mode) on the machine where you want to install components. See the Deployment and Installation Center for instructions.

Note

If Policy Broker runs on a V-Series appliance, then only on-appliance instances of Policy Server can communicate with Policy Broker. In this case, Policy Server **cannot** be installed off-appliance. If Policy Broker is installed off-appliance, however, both on-appliance and off-appliance instances of Policy Server can communicate with it.

Additional instances of web components may be installed on machines in your network to provide additional functions or distribute processing load. For example, you can install additional Network Agent instances on machines in your network.

Creating a TRITON management server

Important

The appliance must be set up and configured before you create a TRITON management server. If you have not done so already, complete the following procedures before creating a TRITON management server:

- *Set up the appliance hardware*, page 11
- *Perform initial command-line configuration*, page 15
- *Configure the appliance*, page 19

The machine on which TRITON Manager is installed is referred to as the **TRITON management server**. See the Technical Library for instructions on creating a TRITON management server.

Access the TRITON Manager by entering the following address in a supported browser:

```
https://<IP address>:9443/triton
```

- Replace <IP address> with the IP address of the server where you installed the TRITON Manager.
- Access to the TRITON Manager is secured with an SSL security certificate issued by Forcepoint LLC. Because the browser does not recognize Forcepoint LLC, as a known Certificate Authority (CA), a security warning is displayed.

Restoring to Factory Image

Getting Started Guide | V-Series Appliance | Version 8.2.x

USB Image

The current generation of V-Series appliances does not ship with a recovery DVD. The recovery image is offered in USB format and can be downloaded from My Account. Once the image is downloaded, it can be burned to a USB flash drive. For instructions on how to create the USB drive image, please see the article in the Technical Library.

DVD Image for restoring older versions

Prior to the release of v7.7.3, the V10000 and V5000 shipped with a recovery DVD that can be used to restore the appliance to its factory image. **This recovery procedure should be used only if you need to roll back your installation to a**

previous version. You can use the DVD (after saving a Full configuration backup) to re-image the appliance and then recover your custom appliance and module settings.

> **Important**
>
> Use the original recovery DVD that came with your appliance. If you have misplaced it, you can download a DVD image from My Account. It is important you use an image that is associated with the manufacture date of your appliance. The My Account Downloads page will indicate the appliance manufacture date appropriate for each image.

Note that all components running off the appliance must be stopped before you reset to factory image. After the appliance image is restored, components running off the appliance must be reinstalled.

1. Stop all components that are running off the appliance. For example, stop Web module or Email module Log Servers, Sync Service, Linking Service, transparent ID agents, and TRITON Manager.
2. If possible, back up any information you want preserved.
   a. Using a web browser, log onto the Appliance manager:
      `https://<C interface IP address>:9447/appmng/`
   b. Go to **Administration > Backup Utility**, and create a Full Configuration backup. See online Help for assistance. Save this backup file to another machine.
3. Go to the machine rack and insert the recovery disk into the appliance DVD drive.
4. Reboot the appliance. (An alternative is to turn off the power, and then turn it on again.)
5. Watch the terminal screen closely after the reboot starts. When a list of function keys appears at the upper right during reboot, press **F11.** Then select one of the following:
   - **Boot from SATA Optical** drive (V10000)
   - **Boot from Primary CDROM: TEAC DVD-ROM DV-28SW** drive (V5000)
6. When asked whether you want to continue, enter **yes**.

   Restoring the image can take 20 minutes or more. When the DVD is ejected, be sure to remove it from the drive.
7. Press any key to view the subscription agreement.
8. Enter **yes** to accept the subscription agreement, and then enter **yes** to begin firstboot.

   This begins the **firstboot** script.
9. Follow the on-screen instructions at the terminal and provide the necessary information.

   See *Perform initial command-line configuration* for details about what information is requested.

Restore backed-up configuration

1. Restore the backed up configuration via the Appliance manager.
   a. Using a web browser, log onto the Appliance manager
      `https://<C interface IP address>:9447/appmng`
   b. Go to **Administration > Backup Utility**.
   c. Choose **Restore**.
2. Select **Full Appliance Configuration** restore mode and click **Run Restore Wizard**.
3. In the Restore Wizard:
   a. File Location: Select **Another location (browse for file)**. Then click **Next**.
   b. Select File: **Browse** to the backup file (*.bak file) to select it. Then click **Next**.
   c. Confirm: Verify backup file details and then click **Restore Now**.

      The appliance is rebooted automatically after the restore is complete. Appliance and software module settings are restored.
4. Ensure that the appliance time and date are synchronized with other servers.
5. Reinstall the components that run off the appliance.
6. On occasion, a manual download of the Master Database should be initiated after a recovery. Do this in the Web module of the TRITON Manager if you receive a warning message about the Master Database.