



# 5.8 TREND MICRO™ TippingPoint™ Advanced Threat Protection Analyzer

## Installation and Deployment Guide

Breakthrough Protection Against APTs and Targeted Attacks



Endpoint Security



Network Security



Protected Cloud



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<http://docs.trendmicro.com/en-us/enterprise/tippingpoint-advanced-threat-protection-analyzer.aspx>

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This documentation introduces the main features of the product and/or provides installation instructions for a production environment. Read through the documentation before installing or using the product.

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# Preface

## Preface

Welcome to the Trend Micro™ TippingPoint™ Advanced Threat Protection Analyzer *Installation and Deployment Guide*. This guide contains information about the requirements and procedures for deploying, installing and migrating TippingPoint ATP Analyzer.



# Documentation

The documentation set for TippingPoint Advanced Threat Protection Analyzer includes the following:

**TABLE 1. Product Documentation**

DOCUMENT	DESCRIPTION
Administrator's Guide	PDF documentation provided with the product or downloadable from the Trend Micro website.  The Administrator's Guide contains detailed instructions on how to configure and manage TippingPoint ATP Analyzer, and explanations on TippingPoint ATP Analyzer concepts and features.
Installation and Deployment Guide	PDF documentation provided with the product or downloadable from the Trend Micro website.  The Installation and Deployment Guide contains information about requirements and procedures for planning deployment, installing TippingPoint ATP Analyzer, and using the Preconfiguration Console to set initial configurations and perform system tasks.
Syslog Content Mapping Guide	PDF documentation provided with the product or downloadable from the Trend Micro website.  The Syslog Content Mapping Guide provides information about log management standards and syntaxes for implementing syslog events in TippingPoint ATP Analyzer.
Quick Start Card	The Quick Start Card provides user-friendly instructions on connecting TippingPoint ATP Analyzer to your network and on performing the initial configuration.
Readme	The Readme contains late-breaking product information that is not found in the online or printed documentation. Topics include a description of new features, known issues, and product release history.

DOCUMENT	DESCRIPTION
Online Help	<p>Web-based documentation that is accessible from the TippingPoint ATP Analyzer management console.</p> <p>The Online Help contains explanations of TippingPoint ATP Analyzer components and features, as well as procedures needed to configure TippingPoint ATP Analyzer.</p>
Support Portal	<p>The Support Portal is an online database of problem-solving and troubleshooting information. It provides the latest information about known product issues. To access the Support Portal, go to the following website:</p> <p><a href="http://esupport.trendmicro.com">http://esupport.trendmicro.com</a></p>

View and download product documentation from the Trend Micro Online Help Center:

<http://docs.trendmicro.com/en-us/home.aspx>

## Audience

The TippingPoint Advanced Threat Protection Analyzer documentation is written for IT administrators and security analysts. The documentation assumes that the reader has an in-depth knowledge of networking and information security, including the following topics:

- Network topologies
- Database management
- Antivirus and content security protection

The documentation does not assume the reader has any knowledge of sandbox environments or threat event correlation.

## Document Conventions

The documentation uses the following conventions:

**TABLE 2. Document Conventions**

CONVENTION	DESCRIPTION
UPPER CASE	Acronyms, abbreviations, and names of certain commands and keys on the keyboard
<b>Bold</b>	Menus and menu commands, command buttons, tabs, and options
<i>Italics</i>	References to other documents
Monospace	Sample command lines, program code, web URLs, file names, and program output
<b>Navigation &gt; Path</b>	The navigation path to reach a particular screen  For example, <b>File</b> > <b>Save</b> means, click <b>File</b> and then click <b>Save</b> on the interface
 <b>Note</b>	Configuration notes
 <b>Tip</b>	Recommendations or suggestions
 <b>Important</b>	Information regarding required or default configuration settings and product limitations
 <b>WARNING!</b>	Critical actions and configuration options

## Terminology

TERMINOLOGY	DESCRIPTION
ActiveUpdate Server	Provides updates for product components, including pattern files. Trend Micro regularly releases component updates through the Trend Micro ActiveUpdate server.

TERMINOLOGY	DESCRIPTION
Active primary appliance	Clustered appliance with which all management tasks are performed. Retains all configuration settings and allocates submissions to secondary appliances for performance improvement.
Administrator	The person managing TippingPoint Advanced Threat Protection Analyzer
Clustering	Multiple standalone TippingPoint Advanced Threat Protection Analyzer appliances can be deployed and configured to form a cluster that provides fault tolerance, improved performance, or a combination thereof.
Custom port	A hardware port that connects TippingPoint Advanced Threat Protection Analyzer to an isolated network dedicated to sandbox analysis
Dashboard	UI screen on which widgets are displayed
High availability cluster	In a high availability cluster, one appliance acts as the active primary appliance, and one acts as the passive primary appliance. The passive primary appliance automatically takes over as the new active primary appliance if the active primary appliance encounters an error and is unable to recover.
Load-balancing cluster	In a load-balancing cluster, one appliance acts as the active primary appliance, and any additional appliances act as secondary appliances. The secondary appliances process submissions allocated by the active primary appliance for performance improvement.
Management console	A web-based user interface for managing a product.
Management port	A hardware port that connects to the management network.
Passive primary appliance	Clustered appliance that is on standby until active primary appliance encounters an error and is unable to recover. Provides high availability.

TERMINOLOGY	DESCRIPTION
Role-based administration	Role-based administration streamlines how administrators configure user accounts and control access to the management console.
Sandbox image	A ready-to-use software package (operating system with applications) that require no configuration or installation. Virtual Analyzer supports only image files in the Open Virtual Appliance (OVA) format.
Sandbox instance	A single virtual machine based on a sandbox image.
Secondary appliance	Clustered appliance that processes submissions allocated by the active primary appliance for performance improvement.
Standalone appliance	Appliance that is not part of any cluster. Clustered appliances can revert to being standalone appliances by detaching the appliance from its cluster.
Threat Connect	Correlates suspicious objects detected in your environment and threat data from the Trend Micro Smart Protection Network. The resulting intelligence reports enable you to investigate potential threats and take actions pertinent to your attack profile.
Virtual Analyzer	An isolated virtual environment used to manage and analyze samples. Virtual Analyzer observes sample behavior and characteristics, and then assigns a risk level to the sample.
Widget	A customizable screen to view targeted, selected data sets.
YARA	YARA rules are malware detection patterns that are fully customizable to identify targeted attacks and security threats specific to your environment.

## About Trend Micro

As a global leader in cloud security, Trend Micro develops Internet content security and threat management solutions that make the world safe for businesses and consumers to



exchange digital information. With over 20 years of experience, Trend Micro provides top-ranked client, server, and cloud-based solutions that stop threats faster and protect data in physical, virtual, and cloud environments.

As new threats and vulnerabilities emerge, Trend Micro remains committed to helping customers secure data, ensure compliance, reduce costs, and safeguard business integrity. For more information, visit:

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# Chapter 1

## Introduction

This chapter introduces TippingPoint Advanced Threat Protection Analyzer 5.8 and the new features in this release.

# About TippingPoint Advanced Threat Protection Analyzer

TippingPoint Advanced Threat Protection Analyzer is a custom sandbox analysis server that enhances the targeted attack protection of Trend Micro and third-party security products. TippingPoint Advanced Threat Protection Analyzer supports out-of-the-box integration with Trend Micro email and web security products, and can also be used to augment or centralize the sandbox analysis of other products. The custom sandboxing environments that can be created within TippingPoint Advanced Threat Protection Analyzer precisely match target desktop software configurations — resulting in more accurate detections and fewer false positives.

It also provides a Web Services API to allow integration with any third party product, and a manual submission feature for threat research.

## What's New

**TABLE 1-1. What's New in TippingPoint Advanced Threat Protection Analyzer 5.8**

FEATURE/ENHANCEMENT	DETAILS
Structured Threat Information eXpression (STIX) support	TippingPoint ATP Analyzer adds support for Structured Threat Information eXpression (STIX) files to perform the following functions: <ul style="list-style-type: none"><li>• Use of user-defined match list for detection</li><li>• Export via the WebService API for 3rd party integration</li></ul>

FEATURE/ENHANCEMENT	DETAILS
Enhanced SMTP notification	<p>TippingPoint ATP Analyzer improves the SMTP notifications feature by adding the following enhancements:</p> <ul style="list-style-type: none"> <li>• Option to specify the port of SMTP server rather than server address only</li> <li>• Default email sender <b>notifications@atpa.local</b></li> <li>• Support for SMTP over SSL/TLS and STARTTLS</li> <li>• Option to test connection to SMTP server</li> </ul>
Debug log level settings for troubleshooting	<p>The debug log level settings page enables user to configure debug log level setting for ease in troubleshooting.</p>
Enhanced ActiveUpdate	<p>The enhanced ActiveUpdate includes the following features:</p> <ul style="list-style-type: none"> <li>• Several new ActiveUpdate components</li> <li>• Option to rollback ActiveUpdate components</li> <li>• Frequency of ActiveUpdate update check increased from every 24 hours to every 15 minutes</li> </ul>
Command line arguments for PE samples	<p>TippingPoint ATP Analyzer now provides the option to specify optional command line arguments for PE samples received from integrated products, manual submissions, and support tools.</p>
Enhanced Deep Discovery Director support	<p>Enhanced Deep Discovery Director support provides the following features for TippingPoint ATP Analyzer:</p> <ul style="list-style-type: none"> <li>• Centralized Virtual Analyzer image deployment</li> <li>• Configuration replication</li> </ul>
Enhanced Virtual Analyzer	<p>The internal Virtual Analyzer has been enhanced to include proxy configuration.</p>

FEATURE/ENHANCEMENT	DETAILS
Improved detection capability	<p>TippingPoint ATP Analyzer provides increased protection by improving its detection capabilities. This release supports the following:</p> <ul style="list-style-type: none"><li>Deployment of sandbox images running Windows 10 Threshold 2 (B1511), Windows Server 2012, and Windows Server 2012 R2 operating systems</li><li>Support Microsoft Office 2016 application for Office file analysis in sandbox images</li><li>New file types (Microsoft Publisher 2016, Microsoft Windows Command Script file, Microsoft Windows Batch file, and Scalable Vector Graphics) for file submission filters</li><li>File SHA-256 and vulnerability information in analysis reports</li><li>Decrypt password-protected PDF and Microsoft Office files using a password list</li><li>Extract files in archive files with multiple compression layers</li></ul>
Enhanced Submission screen	<p>The enhanced <b>Submission</b> screen includes the following features:</p> <ul style="list-style-type: none"><li>Improved Advanced filter to provide more search options</li><li>A separate <b>Unsuccessful</b> tab to display all samples which were not successfully analyzed</li><li>Option to customize which columns appear in the Submission screen</li></ul>
Inline migration from TippingPoint ATP Analyzer 5.5 and 5.5 SP1	TippingPoint ATP Analyzer provides users with the option of automatically migrating the settings from 5.5 and 5.5 SP1 to 5.8 using the <b>Firmware</b> screen of the management console.
Enhanced credential management	TippingPoint ATP Analyzer uses the same user account and password for the admin account on the management console UI and preconfig screen.

## Features and Benefits

TippingPoint Advanced Threat Protection Analyzer includes the following features:

- *Enable Sandboxing as a Centralized Service on page 1-5*
- *Custom Sandboxing on page 1-6*
- *Broad File Analysis Range on page 1-6*
- *YARA Rules on page 1-6*
- *Document Exploit Detection on page 1-6*
- *Automatic URL Analysis on page 1-6*
- *Detailed Reporting on page 1-6*
- *Alert Notifications on page 1-7*
- *Clustered Deployment on page 1-7*
- *Trend Micro Integration on page 1-7*
- *Web Services API and Manual Submission on page 1-7*
- *Custom Defense Integration on page 1-7*

### Enable Sandboxing as a Centralized Service

TippingPoint Advanced Threat Protection Analyzer ensures optimized performance with a scalable solution able to keep pace with email, network, endpoint, and any additional source of samples.

## Custom Sandboxing

TippingPoint Advanced Threat Protection Analyzer performs sandbox simulation and analysis in environments that match the desktop software configurations attackers expect in your environment and ensures optimal detection with low false-positive rates.

## Broad File Analysis Range

TippingPoint Advanced Threat Protection Analyzer examines a wide range of Windows executable, Microsoft Office, PDF, web content, and compressed file types using multiple detection engines and sandboxing.

## YARA Rules

TippingPoint Advanced Threat Protection Analyzer uses YARA rules to identify malware. YARA rules are malware detection patterns that are fully customizable to identify targeted attacks and security threats specific to your environment.

## Document Exploit Detection

Using specialized detection and sandboxing, TippingPoint Advanced Threat Protection Analyzer discovers malware and exploits that are often delivered in common office documents and other file formats.

## Automatic URL Analysis

TippingPoint Advanced Threat Protection Analyzer performs page scanning and sandbox analysis of URLs that are automatically submitted by integrating products.

## Detailed Reporting

TippingPoint Advanced Threat Protection Analyzer delivers full analysis results including detailed sample activities and C&C communications via central dashboards and reports.

## Alert Notifications

Alert notifications provide immediate intelligence about the state of TippingPoint Advanced Threat Protection Analyzer.

## Clustered Deployment

Multiple standalone TippingPoint Advanced Threat Protection Analyzer appliances can be deployed and configured to form a cluster that provides fault tolerance, improved performance, or a combination thereof.

## Trend Micro Integration

TippingPoint Advanced Threat Protection Analyzer enables out-of-the-box integration to expand the sandboxing capacity Trend Micro email and web security products.

## Web Services API and Manual Submission

TippingPoint Advanced Threat Protection Analyzer allows any security product or authorized threat researcher to submit samples.

## Custom Defense Integration

TippingPoint Advanced Threat Protection Analyzer shares new IOC detection intelligence automatically with other Trend Micro solutions and third-party security products.



# Chapter 2

## Preparing to Deploy TippingPoint Advanced Threat Protection Analyzer

This chapter discusses the items you need to prepare to deploy TippingPoint Advanced Threat Protection Analyzer and connect it to your network.

If TippingPoint Advanced Threat Protection Analyzer is already deployed on your network and you have a patch or hotfix to apply to it, see the *TippingPoint Advanced Threat Protection Analyzer Administrator's Guide*.

# Deployment Overview

## Product Specifications

Standard TippingPoint Advanced Threat Protection Analyzer appliances have the following specifications.

Contact Trend Micro if the appliance you are using does not meet these hardware specifications.

### Product Specifications - 1100 Appliance

FEATURE	SPECIFICATIONS
Rack size	2U 19-inch standard rack
Availability	Raid 1 configuration
Storage size	4 TB free storage
Connectivity	<ul style="list-style-type: none"><li>Management port: 1 x 10Base-T/100Base-TX/1000Base-T</li><li>Custom ports: 3 x 10Base-T/100Base-TX/1000Base-T</li></ul>
Dimensions (WxDxH)	48.2 cm (18.98 in) x 75.58 cm (29.75 in) x 8.73 cm (3.44 in)
Maximum weight	31.5 kg (69.45 lb)
Operating temperature	10 °C to 35 °C at 10% to 80% relative humidity (RH)
Power	750W, 120-240 VAC 50/60 Hz

## Deployment Considerations

Any TippingPoint Advanced Threat Protection Analyzer appliance can be deployed and configured as a standalone appliance. A standalone appliance processes all submitted objects without the assistance of other TippingPoint Advanced Threat Protection Analyzer appliances. It cannot provide continued scanning and analysis services when it encounters an error and is unable to recover.

Multiple standalone TippingPoint Advanced Threat Protection Analyzer appliances can be deployed and configured to form a cluster that provides fault tolerance, improved performance, or a combination thereof.

Depending on your requirements and the number of TippingPoint Advanced Threat Protection Analyzer appliances available, you may deploy the following cluster configurations:

**TABLE 2-1. Cluster Configurations**

CLUSTER CONFIGURATION	DESCRIPTION
High availability cluster	In a high availability cluster, one appliance acts as the active primary appliance, and one acts as the passive primary appliance. The passive primary appliance automatically takes over as the new active primary appliance if the active primary appliance encounters an error and is unable to recover.  For details, see <a href="#">High Availability Cluster on page 2-4</a> .
Load-balancing cluster	In a load-balancing cluster, one appliance acts as the active primary appliance, and any additional appliances act as secondary appliances. The secondary appliances process submissions allocated by the active primary appliance for performance improvement.  For details, see <a href="#">Load-Balancing Cluster on page 2-5</a> .
High availability cluster with load balancing	In a high availability cluster with load balancing, one appliance acts as the active primary appliance, one acts as the passive primary appliance, and any additional appliances act as secondary appliances. The passive primary appliance takes over as the active primary appliance if the active primary appliance encounters an error and is unable to recover. The secondary appliances process submissions allocated by the active primary appliance for performance improvement.  For details, see <a href="#">High Availability Cluster with Load Balancing on page 2-6</a> .

## High Availability Cluster

In a high availability cluster, one appliance acts as the active primary appliance, and one acts as the passive primary appliance. The passive primary appliance automatically takes over as the new active primary appliance if the active primary appliance encounters an error and is unable to recover.

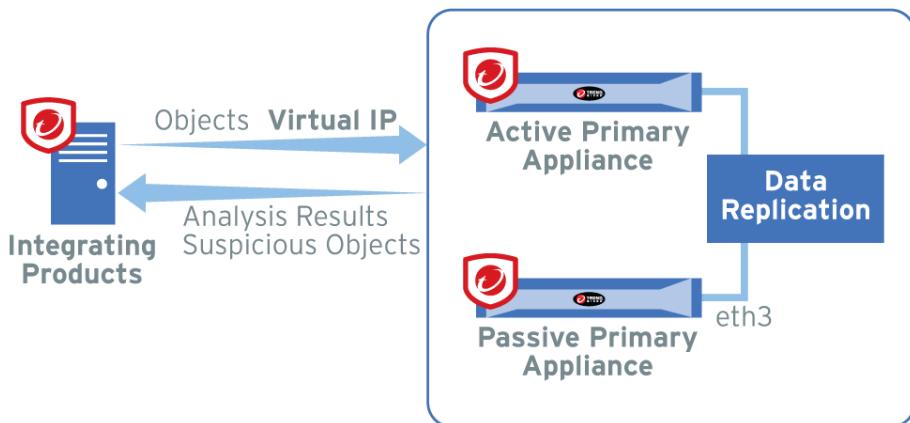
Deploy this cluster configuration if you want to ensure that TippingPoint Advanced Threat Protection Analyzer capabilities remain available even when the appliance encounters an error and is unable to recover.

The following figure shows two TippingPoint Advanced Threat Protection Analyzer appliances deployed in a high availability cluster configuration and how integrating products communicate with TippingPoint Advanced Threat Protection Analyzer.



### Note

- The active primary appliance and the passive primary appliance must be connected using eth3.
- Trend Micro recommends using a Category 6 or higher Ethernet cable to directly connect the active primary appliance and passive primary appliance using eth3.
- Trend Micro recommends directly connecting the active primary appliance and the passive primary appliance to minimize potential points of failures.
- Network switches can be used if a large physical distance does not permit directly connecting the active primary appliance and the passive primary appliance.
  - The active primary appliance and the passive primary appliance must be in the same network segment when using network switches.
  - Trend Micro recommends not connecting any other devices to the network switches used to connect the active primary appliance and the passive primary appliance.



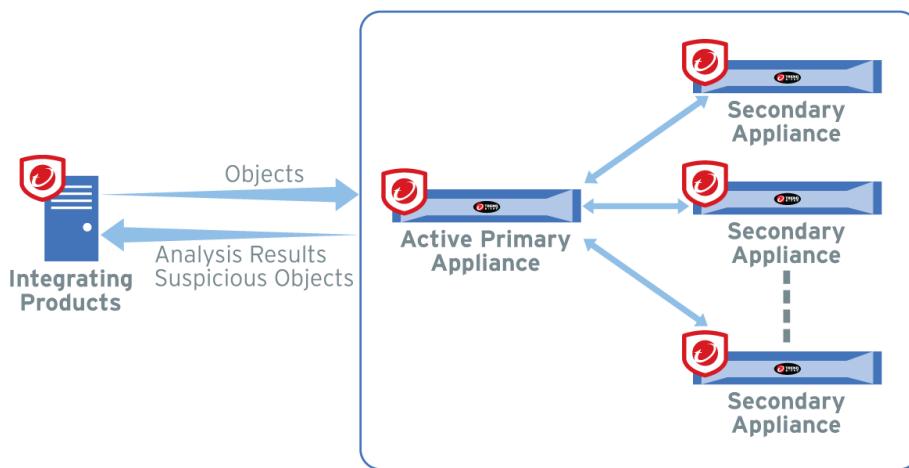
**FIGURE 2-1. High Availability Cluster**

## Load-Balancing Cluster

In a load-balancing cluster, one appliance acts as the active primary appliance, and any additional appliances act as secondary appliances. The secondary appliances process submissions allocated by the active primary appliance for performance improvement.

Deploy this cluster configuration if you require improved object processing performance.

The following figure shows TippingPoint Advanced Threat Protection Analyzer appliances deployed in a load-balancing cluster configuration and how integrating products communicate with TippingPoint Advanced Threat Protection Analyzer.



**FIGURE 2-2. Load-Balancing Cluster**

## High Availability Cluster with Load Balancing

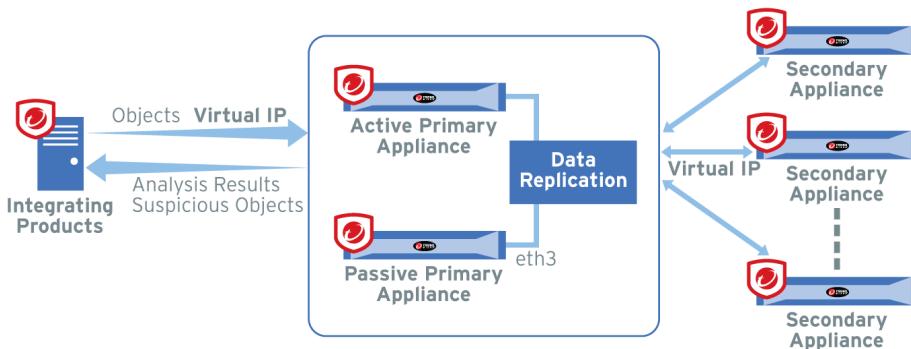
In a high availability cluster with load balancing, one appliance acts as the active primary appliance, one acts as the passive primary appliance, and any additional appliances act as secondary appliances. The passive primary appliance takes over as the active primary appliance if the active primary appliance encounters an error and is unable to recover. The secondary appliances process submissions allocated by the active primary appliance for performance improvement.

Deploy this cluster configuration if you want to combine the benefits of high availability clustering and load-balancing clustering.

The following figure shows TippingPoint Advanced Threat Protection Analyzer appliances deployed in a high availability cluster configuration and how integrating products communicate with TippingPoint Advanced Threat Protection Analyzer.

**Note**

- The active primary appliance and the passive primary appliance must be connected using eth3.
- Trend Micro recommends using a Category 6 or higher Ethernet cable to directly connect the active primary appliance and passive primary appliance using eth3.
- Trend Micro recommends directly connecting the active primary appliance and the passive primary appliance to minimize potential points of failures.
- Network switches can be used if a large physical distance does not permit directly connecting the active primary appliance and the passive primary appliance.
  - The active primary appliance and the passive primary appliance must be in the same network segment when using network switches.
  - Trend Micro recommends not connecting any other devices to the network switches used to connect the active primary appliance and the passive primary appliance.



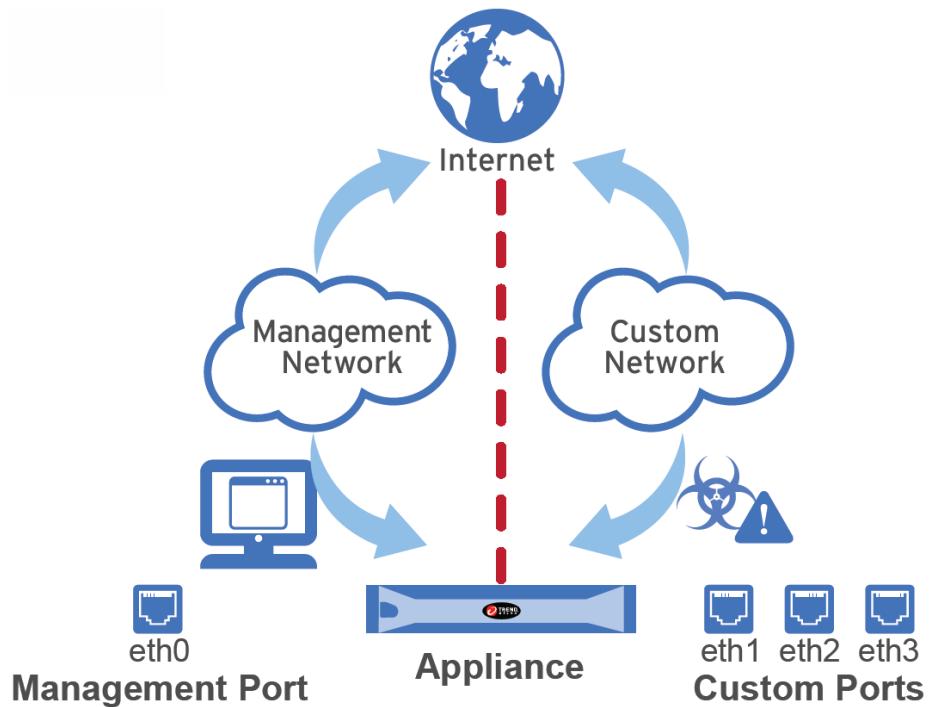
**FIGURE 2-3. High Availability Cluster with Load Balancing**

## Recommended Network Environment

TippingPoint Advanced Threat Protection Analyzer requires connection to a management network, which usually is the organization's intranet. After deployment, administrators can perform configuration tasks from any computer on the management network.

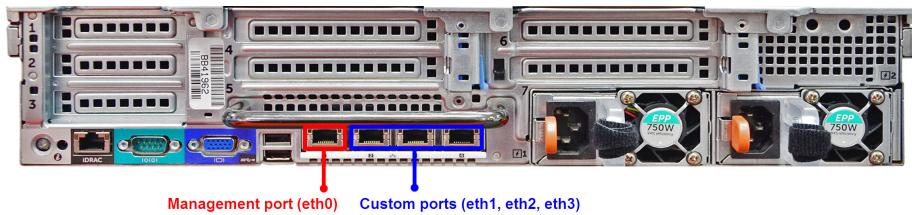
Trend Micro recommends using a custom network for sample analysis. Custom networks ideally are connected to the Internet but may be configured with its own set of proxy settings, proxy authentication, and connection restrictions. TippingPoint Advanced Threat Protection Analyzer provides the option to configure proxies for custom networks, as well as providing support for proxy authentication.

The networks must be independent of each other so that malicious samples in the custom network do not affect hosts in the management network.



## Network Settings

Ports are found at the back of the appliance, as shown in the following image.



Network interface ports include:

- **Management port (eth0):** Connects the appliance to the management network
- **Custom ports (eth1, eth2, eth3):** Connect the appliance to isolated networks that are reserved for sandbox analysis



### Note

- Only one of the interfaces, eth1, eth2, or eth3, can be used for sandbox analysis.
- When using high availability, eth3 is used to directly connect two identical appliances and cannot be used for sandbox analysis.

TippingPoint ATP Analyzer requires one available static IP address in the management network.

If sandbox instances require Internet connectivity during sample analysis, Trend Micro recommends allocating one extra IP address for Virtual Analyzer. The **Sandbox Management > Network Connection** screen allows you to specify static addresses. For more information, see the TippingPoint Advanced Threat Protection Analyzer *Administrator's Guide*.

## Deployment Requirements

Requirement	Details
TippingPoint Advanced Threat Protection Analyzer	Obtain from Trend Micro
TippingPoint Advanced Threat Protection Analyzer installation CD	Obtain from Trend Micro
Activation Code	Obtain from Trend Micro
Monitor and VGA cable	Connects to the VGA port of the appliance
USB keyboard	Connects to a USB port of the appliance
USB mouse	Connects to a USB port of the appliance
Ethernet cables	<ul style="list-style-type: none"><li>One cable connects the management port of the appliance to the management network.</li><li>One cable connects a custom port to an isolated network that is reserved for sandbox analysis.</li><li>If using high availability, one cable connects eth3 to eth3 on an identical appliance.</li></ul>
IP addresses	<ul style="list-style-type: none"><li>One static IP address in the management network</li><li>If sandbox instances require Internet connectivity, one extra IP address for Virtual Analyzer</li><li>If using high availability, one extra virtual IP address</li></ul>
Software	Any of the following browsers: <ul style="list-style-type: none"><li>Microsoft Internet Explorer™ 9, 10, or 11</li><li>Microsoft Edge™</li><li>Google Chrome™</li><li>Mozilla Firefox™</li></ul>
Third party software licenses	Licenses for all third party software installed on sandbox images

## Logon Credentials

Console	Purpose	Default Credentials	Your Information
Preconfiguration console	Perform initial configuration tasks. See <i>Configuring Network Addresses on the Preconfiguration Console on page 4-4</i> .	<ul style="list-style-type: none"> <li>TippingPoint ATP Analyzer <b>login</b> (not configurable) : <code>admin</code></li> <li><b>Password:</b> <code>Admin1234!</code></li> </ul>	<b>Password:</b>
Management console	<ul style="list-style-type: none"> <li>Configure product settings</li> <li>View and download reports</li> </ul>	<ul style="list-style-type: none"> <li><b>User name</b> (not configurable) : <code>admin</code></li> <li><b>Password:</b> <code>Admin1234!</code></li> </ul> <p>Other user accounts (configured on the management console, in <b>Administration &gt; Accounts / Contacts &gt; Accounts</b>)</p>	<b>Password:</b>  User account 1: <b>User name:</b> <b>Password:</b>  User account 2: <b>User name:</b> <b>Password:</b>

## Ports Used by the Appliance

The following table shows the ports that are used with TippingPoint Advanced Threat Protection Analyzer and why they are used.

**TABLE 2-2. Ports used by TippingPoint Advanced Threat Protection Analyzer**

PORT	PROTOCOL	FUNCTION	PURPOSE
21	TCP	Outbound	TippingPoint Advanced Threat Protection Analyzer uses this port to send backup data to FTP servers.
22	TCP	Listening and outbound	TippingPoint Advanced Threat Protection Analyzer uses this port to: <ul style="list-style-type: none"><li>Access the preconfiguration console with a computer through SSH</li><li>Send backup data to an SFTP server</li></ul>
53	TCP/UDP	Outbound	TippingPoint ATP Analyzer uses this port for DNS resolution.
67	UDP	Outbound	TippingPoint ATP Analyzer sends requests to the DHCP server if IP addresses are assigned dynamically.
68	UDP	Listening	TippingPoint ATP Analyzer receives responses from the DHCP server.

PORT	PROTOCOL	FUNCTION	PURPOSE
80	TCP	Listening and outbound	<p>TippingPoint ATP Analyzer connects to other computers and integrated Trend Micro products and hosted services through this port.</p> <p>In particular, TippingPoint ATP Analyzer uses this port to:</p> <ul style="list-style-type: none"> <li>Verify the TippingPoint ATP Analyzer product license through Customer Licensing Portal</li> <li>Query Web Reputation Services through the Smart Protection Network</li> <li>Connect to the Community File Reputation service for file prevalence when analyzing file samples</li> </ul>
123	UDP	Listening and outbound	TippingPoint ATP Analyzer connects to the NTP server to synchronize time.
137	UDP	Outbound	TippingPoint ATP Analyzer uses NetBIOS to resolve IP addresses to host names.
161	UDP	Listening	TippingPoint ATP Analyzer uses this port to listen for requests from SNMP managers.
162	UDP	Outbound	TippingPoint ATP Analyzer uses this port to send trap messages to SNMP managers.

PORT	PROTOCOL	FUNCTION	PURPOSE
443	TCP	Listening and outbound	<p>TippingPoint Advanced Threat Protection Analyzer uses this port to:</p> <ul style="list-style-type: none"><li>• Access the management console with a computer through HTTPS</li><li>• Communicate with other TippingPoint Advanced Threat Protection Analyzer appliances in a cluster environment</li><li>• Connect to Trend Micro Threat Connect</li><li>• Communicate with Trend Micro Control Manager</li><li>• Connect to Web Reputation Services to query the blocking reason</li><li>• Receive files from a computer with Manual Submission Tool</li><li>• Receive samples from integrated products</li><li>• Send anonymous threat information from Smart Feedback</li><li>• Send Suspicious Objects list and analysis information to integrated products</li><li>• Update components by connecting to the ActiveUpdate server</li><li>• Verify the safety of files through the Certified Safe Software Service</li><li>• Communicate with Deep Discovery Director</li></ul>

PORT	PROTOCOL	FUNCTION	PURPOSE
User-defined		Outbound	<p>TippingPoint Advanced Threat Protection Analyzer uses user-defined ports to:</p> <ul style="list-style-type: none"><li>• Send logs to syslog servers</li><li>• Connect to proxy servers</li><li>• Connect to the Smart Protection Server</li><li>• Send notifications and scheduled reports through SMTP</li></ul>



# Chapter 3

## Installing the Appliance

This chapter discusses the TippingPoint Advanced Threat Protection Analyzer installation tasks.

TippingPoint Advanced Threat Protection Analyzer is already installed on new appliances. Perform the tasks only if you need to reinstall or upgrade the firmware.

# Installation Tasks

---

## Procedure

1. Prepare the appliance for installation. For details, see *Setting Up the Hardware on page 3-2*.
2. Install TippingPoint Advanced Threat Protection Analyzer. For details, see *Installing TippingPoint Advanced Threat Protection Analyzer on page 3-3*.
3. Configure the IP address of the appliance on the preconfiguration console. For details, see *Configuring Network Addresses on the Preconfiguration Console on page 4-4*.

---

## Setting Up the Hardware

---

### Procedure

1. Mount the appliance in a standard 19-inch 4-post rack, or on a free-standing object, such as a sturdy desktop.



#### Note

When mounting the appliance, leave at least two inches of clearance on all sides for proper ventilation and cooling.

---

2. Connect the appliance to a power source.

TippingPoint ATP Analyzer includes two 750-watt hot-plug power supply units. One acts as the main power supply and the other as a backup. The corresponding AC power slots are located at the back of the appliance, as shown in the following image.

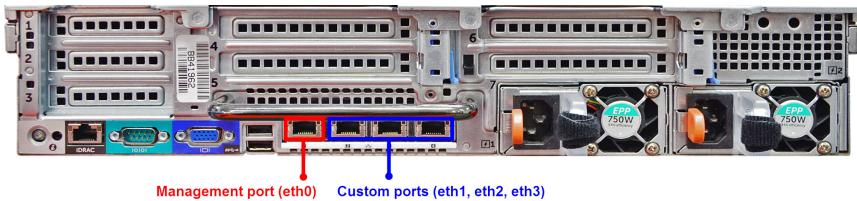


3. Connect the monitor to the VGA port at the back of the appliance.
4. Connect the keyboard and mouse to the USB ports at the back of the appliance.
5. Connect the Ethernet cables to the management and custom ports.
  - **Management port:** A hardware port that connects the appliance to the management network
  - **Custom port:** A hardware port that connects the appliance to an isolated network dedicated to sandbox analysis



#### Note

When using high availability, eth3 is used to connect the two identical appliances and cannot be used for sandbox analysis.



6. Power on the appliance.



#### Note

The power button is found on the front panel of the appliance, behind the bezel.

## Installing TippingPoint Advanced Threat Protection Analyzer

### Procedure

1. Power on the appliance.



**Note**

The power button is found on the front panel of the appliance, behind the bezel.

---

The **power-on self-test (POST)** screen appears.

```
F2 = System Setup
F10 = Lifecycle Controller (Config iDRAC, Update FW, Install OS)
F11 = Boot Manager
F12 = PXE Boot

Initializing Intel(R) Boot Agent GE v1.5.6Z
PXE 2.1 Build 092 (WFM 2.0)

Initializing Serial ATA devices...
Port J: HL-DT-ST DVD-ROM DT00M

PowerEdge Expandable RAID Controller BIOS
Copyright(c) 2015 Avago Technologies
Press <Ctrl><R> to Run Configuration Utility
-
```

2. Insert the CD containing the TippingPoint Advanced Threat Protection Analyzer installation package.
3. Restart the appliance.

The **POST** screen appears.

```
F2 = System Setup
F10 = Lifecycle Controller (Config iDRAC, Update FW, Install OS)
F11 = Boot Manager
F12 = PXE Boot

Initializing Intel(R) Boot Agent GE v1.5.6Z
PXE 2.1 Build 092 (WFM 2.0)

Initializing Serial ATA devices...
Port J: HL-DT-ST DVD-ROM DT00M

PowerEdge Expandable RAID Controller BIOS
Copyright(c) 2015 Avago Technologies
Press <Ctrl><R> to Run Configuration Utility
-
```

4. Press F11.

The **Boot Manager** screen appears.



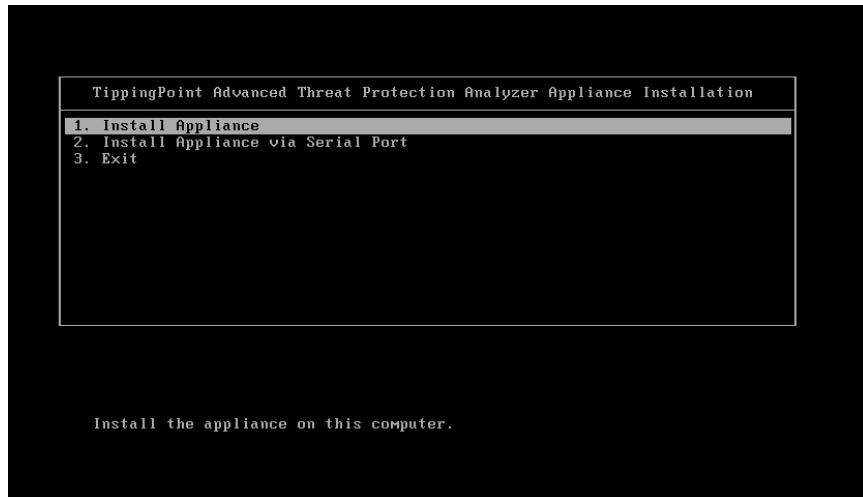
5. Under **Boot Manager Main Menu**, select **One-shot BIOS Boot Menu** and press ENTER.

The **Boot Manager** screen appears.



6. Select **DVD-ROM** and press ENTER.

The **TippingPoint Advanced Threat Protection Analyzer Appliance Installation** screen appears.



7. Select **1. Install Appliance** and press ENTER.

- When installing TippingPoint Advanced Threat Protection Analyzer via serial port, select **2. Install Appliance via Serial Port** and press ENTER.

The **License Agreement** screen appears.

**IMPORTANT: READ CAREFULLY** PURCHASE/LICENSE/USE OF AN ATP APPLIANCE (AS DEFINED BELOW) BY BUSINESS AND GOVERNMENTAL ENTITIES IS AND SUBJECT TO THE FOLLOWING TERMS, CONDITIONS, LIMITATIONS, AND EXCLUSIONS

**Trend Micro Terms/Conditions of Sale and Software License Agreement**  
**Trial Use and Paid Use - Trend Micro TippingPoint Advanced Threat Protection Hardware-Based Appliance Family of Products**  
**Date: April 2017**  
**English - Enterprise Customers**

THE TREND MICRO TIPPINGPOINT ADVANCED THREAT PROTECTION ("ATP") APPLIANCE INCLUDES AND REQUIRES THE SOFTWARE THAT MUST BE UPDATED ROUTINELY FOR THE ATP APPLIANCE TO OPERATE EFFECTIVELY. TREND MICRO INCORPORATED, INCLUDING ITS TIPPINGPOINT BUSINESS UNIT, (COLLECTIVELY, "TREND MICRO") OFFERS TO LICENSE YOU SOFTWARE (AS DEFINED BELOW) AND DOCUMENTATION ONLY IF YOU AGREE TO ALL TERMS AND CONDITIONS OF THIS AGREEMENT. IF YOU ARE ACQUIRING THE ATP APPLIANCE ON BEHALF OF A COMPANY OR OTHER ORGANIZATION, YOU REPRESENT TO TREND MICRO THAT YOU ARE DULY AUTHORIZED TO REPRESENT SUCH ORGANIZATION AND YOU ACCEPT THE TERMS AND CONDITIONS OF THIS AGREEMENT ON BEHALF OF SUCH ORGANIZATION.

IF YOU DO NOT WISH TO ACCEPT THIS AGREEMENT OR YOU ARE NOT AN AUTHORIZED REPRESENTATIVE, PLEASE TAKE THE ACTION SET FORTH IN SECTION 5 BELOW AND DO NOT CONNECT OR USE THE ATP APPLIANCE OR ACTIVATE THE SOFTWARE, AND IF YOU HAVE PAID ANY FEES BEFORE RECEIVING NOTICE OF THIS AGREEMENT, CONTACT YOUR SUPPLIER (TREND MICRO OR CHANNEL PARTNER AS THE CASE MAY BE) WITHIN THIRTY (30) DAYS OF YOUR PURCHASE FOR A REFUND AGAINST RETURN OF THE ATP APPLIANCE. THIS RIGHT APPLIES ONLY IF YOU ARE THE ORIGINAL END USER/PURCHASER.

1. **Scope:** This Agreement applies to the ATP Appliance You have acquired the use of or purchased. The Hardware portion of the Appliance is sold to You, whereas, the Software portion of the Appliance is licensed to You in accordance with this Agreement and NOT sold to You.

2. **Applicable Terms; Definitions; Paid Use Licenses:** If You are a **Paid User**, Sections 1 through 8 and 10 through 31 of this Agreement apply to You. **Trial Use Licenses:** If You are entitled to a **Trial Use**, Sections 1 through 9, 10(c), 10(d), 11, 13, 14, 18 through 27, and 29 through 31 of this Agreement apply to You.

**Definitions:** In addition to initially capitalized and underlined definitions, descriptions, agreements, clarifications, and limitations thereto that may be set forth elsewhere in this Agreement, the initially capitalized and underlined definitions, descriptions, agreements, clarifications, and limitations set forth in this Section 2 shall have the meanings specified or referred in this Section 2 (each is an **"Agreed Definition"**) and all Agreed Definitions shall be equally applicable to the singular, plural, and derivative forms.

**"Channel Partner"** means any distributor, reseller, value-added reseller, or system integrator permitted by Trend Micro to resell the ATP Appliance.

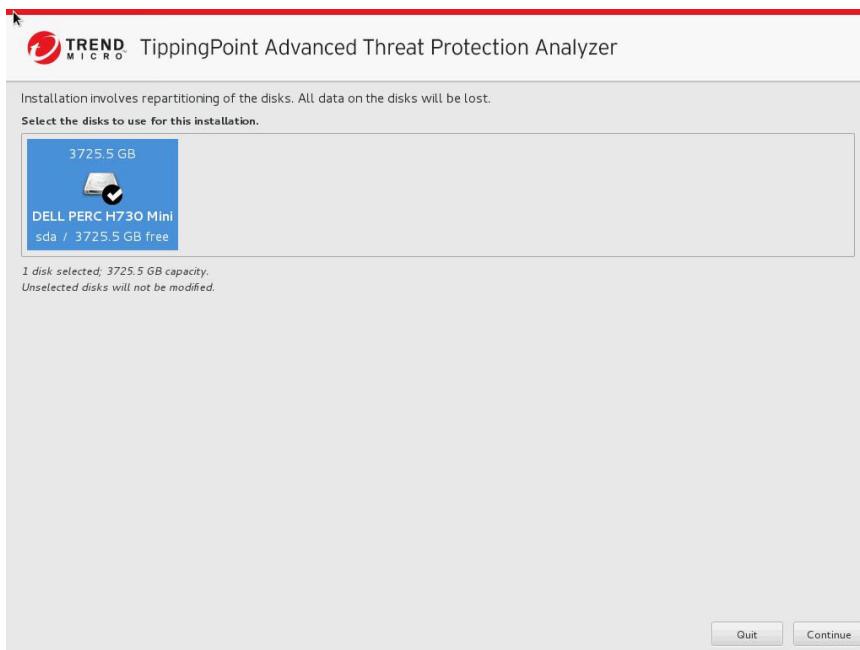
**"Cloud Services"** means (only for which time as maintenance is provided or Renewal Maintenance is purchased by You in support of the Software) the cloud services feature functionality of the Software (excluding the Smart Protection Network) that are made available to You by such means as may be designated, enabled, or provided by Trend Micro from data centers/servers hosted by or on behalf of Trend Micro. Even if purchased by You pursuant to Maintenance/Renewal Maintenance, such Cloud Services may nevertheless be deactivated, disabled, or refused at any time at Your sole option/discretion in accordance with the Documentation.

**"Confidential Information"** shall have the meaning set forth in Section 20.

**Decline** **Accept**

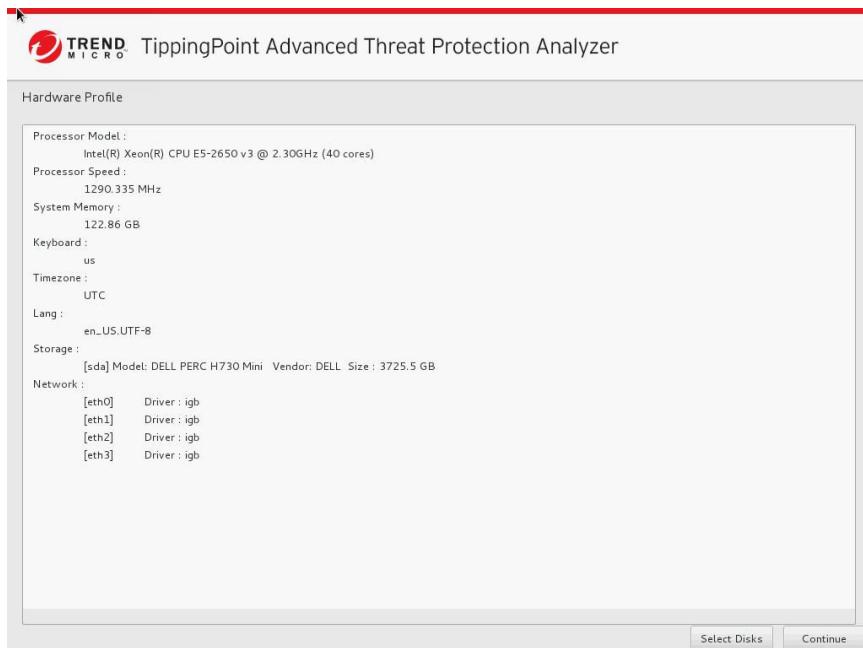
8. Click **Accept**.

The **Select Disk** screen appears.



9. Select the disk on which to install the TippingPoint Advanced Threat Protection Analyzer software.
10. Click **Continue**.

The program checks if the minimum hardware requirements are met, and then displays the **Hardware Profile** screen.



11. Click **Continue**.



### WARNING!

Installation involves repartitioning of the disks. All data on the disks are lost.

A confirmation message appears.



**12. Click **Continue**.**

The installation program repartitions the disks and prepares the environment for installation. Upon completion, the appliance is restarted and TippingPoint Advanced Threat Protection Analyzer software is installed.

Configure the IP address of the appliance on the preconfiguration console to complete the deployment process. For details, see *Configuring Network Addresses on the Preconfiguration Console on page 4-4*.

---

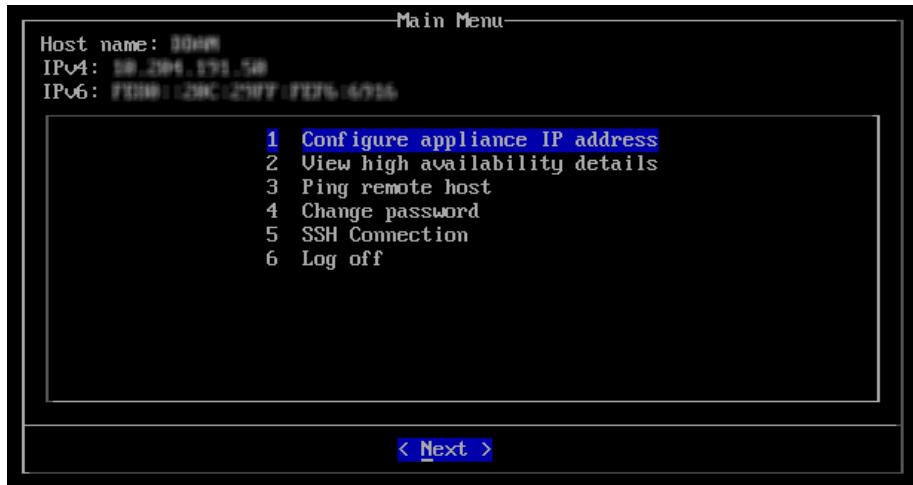
# Chapter 4

## Using the Preconfiguration Console

This chapter discusses how to use the TippingPoint Advanced Threat Protection Analyzer preconfiguration console.

## The Preconfiguration Console

The preconfiguration console is a Bash-based (Unix shell) interface used to configure network settings, view high availability details, ping remote hosts, and change the preconfiguration console password.



The following table describes the tasks performed on the preconfiguration console.

Task	Procedure
Logging on	Type valid logon credentials. The default credentials are: <ul style="list-style-type: none"><li>• User name: <code>admin</code></li><li>• Password: <code>Admin1234!</code></li></ul>
Configuring network addresses for the appliance	Specify the appliance IP address, subnet mask, gateway, and DNS. For details, see <i>Configuring Network Addresses on the Preconfiguration Console on page 4-4</i> .

Task	Procedure
Viewing high availability details	<p>View the active and passive appliance host names, IP addresses, and sync status.</p> <p> <b>Note</b> High availability cannot be configured on the preconfiguration console. Use the management console to configure high availability. For details see the <i>High Availability Tab</i> and <i>Cluster Tab</i> topics in the <i>TippingPoint Advanced Threat Protection Analyzer Administrator's Guide</i>.</p>
Pinging a remote host	Type a valid IP address or FQDN and click <b>Ping</b> .
Changing the preconfiguration console password	Type the new password twice and click <b>Save</b> .
Enabling and disabling SSH connection	Enabling or disabling the SSH connection.
Logging off	On the <b>Main Menu</b> , click <b>Log off</b> .

## Preconfiguration Console Basic Operations

Use the following keyboard keys to perform basic operations on the preconfiguration console.



### Important

Disable scroll lock (using the SCROLL LOCK key on the keyboard) to perform the following operations.

KEYBOARD KEY	OPERATION
<p>Up and Down arrows</p> 	<p>Move between fields.</p>
	<p>Move between items in a numbered list.</p>
	<p> <b>Note</b> An alternative way of moving to an item is by typing the item number.</p>
	<p>Move between text boxes.</p>
<p>Left and Right arrows</p> 	<p>Move between buttons. Buttons are enclosed in angle brackets &lt;&gt;.</p>
	<p>Move between characters in a text box.</p>
<p>ENTER</p> 	<p>Click the highlighted item or button.</p>
<p>TAB</p> 	<p>Move between screen sections, where one section requires using a combination of arrow keys (Up, Down, Left, and Right keys).</p>

## Configuring Network Addresses on the Preconfiguration Console

---

### Procedure

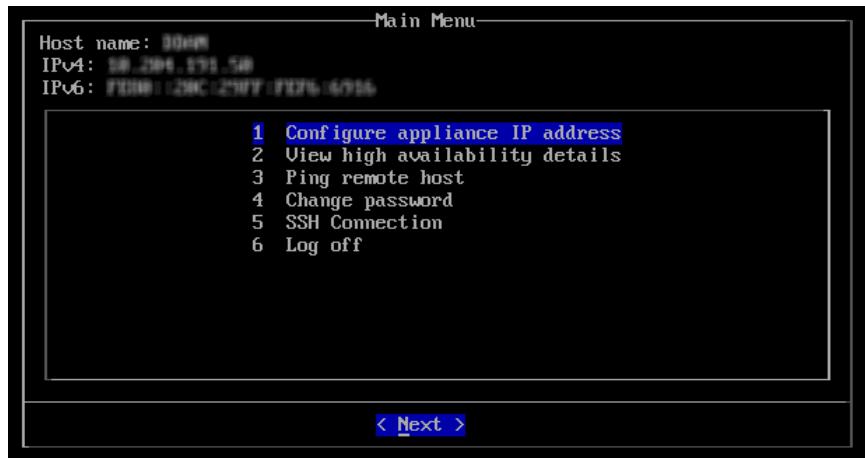
1. Type valid logon credentials. The default credentials are:
  - User name: `admin`
  - Password: `Admin1234!`

**Note**

None of the characters you type appear on the screen.

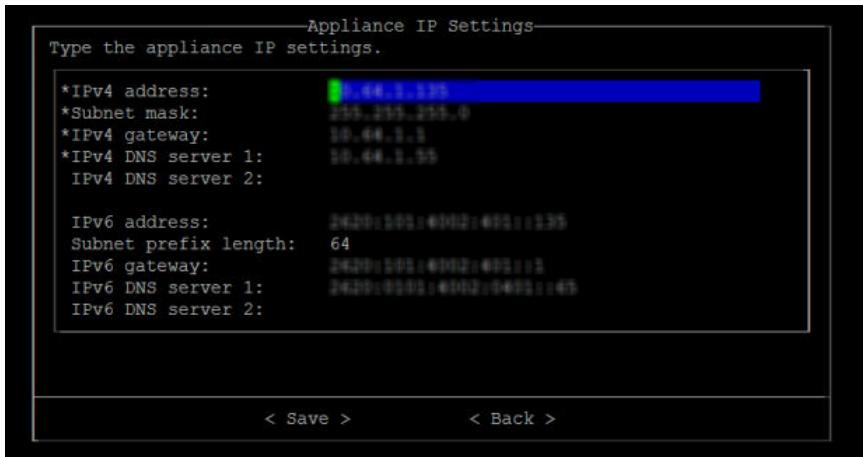
This password is the same as the password used to log on to the web-based management console. For more information, see [Logon Credentials on page 2-11](#).

The **Main Menu** screen appears.



2. Select **Configure appliance IP address** and press ENTER.

The **Appliance IP Settings** screen appears.



3. Specify the following required settings:

ITEM	GUIDELINES
IPv4 address	<ul style="list-style-type: none"><li>Must be in the same subnet as the virtual IP address.</li><li>Must not conflict with the following addresses:<ul style="list-style-type: none"><li>Sandbox network: Configured in <b>Virtual Analyzer</b> &gt; <b>Sandbox Management</b> &gt; <b>Network Connection</b></li><li>Virtual IP address: Configured in <b>Administration</b> &gt; <b>System Settings</b> &gt; <b>High Availability</b></li><li>Virtual Analyzer: 1.1.0.0 - 1.1.2.255</li><li>Broadcast: 255.255.255.255</li><li>Multicast: 224.0.0.0 - 239.255.255.255</li><li>Link local: 169.254.1.0 - 169.254.254.255</li><li>Class E: 240.0.0.0 - 255.255.255.255</li><li>Localhost: 127.0.0.1/8</li></ul></li></ul>

ITEM	GUIDELINES
	 <b>Note</b> Changing the IP address changes the management console URL.
Subnet mask	Must not be any of the following numbers: <ul style="list-style-type: none"> <li>• 111.111.111.111</li> <li>• 255.255.255.255</li> </ul>
IPv4 gateway	Must be in the same subnet as the IP address
IPv4 DNS server 1	Same as IP address
IPv4 DNS server 2 (Optional)	Same as IP address

4. (Optional) Configure the IPv6 settings.
5. Press TAB to navigate to **Save**, and then press ENTER.

The **Main Menu** screen appears after the settings are successfully saved.

---

## Viewing High Availability Details on the Preconfiguration Console

### Before you begin

The **High Availability** screen looks different depending on the appliance you log on to.

Use the **High Availability** screen to view details about the high availability configuration.



#### **Note**

On a passive primary appliance, this screen can be used to detach the appliance from the cluster.

## Procedure

1. Type valid logon credentials. The default credentials are:

- User name: `admin`
- Password: `Admin1234!`



### Note

None of the characters you type appear on the screen.

This password is the same as the password used to log on to the web-based management console. For more information, see [Logon Credentials on page 2-11](#).

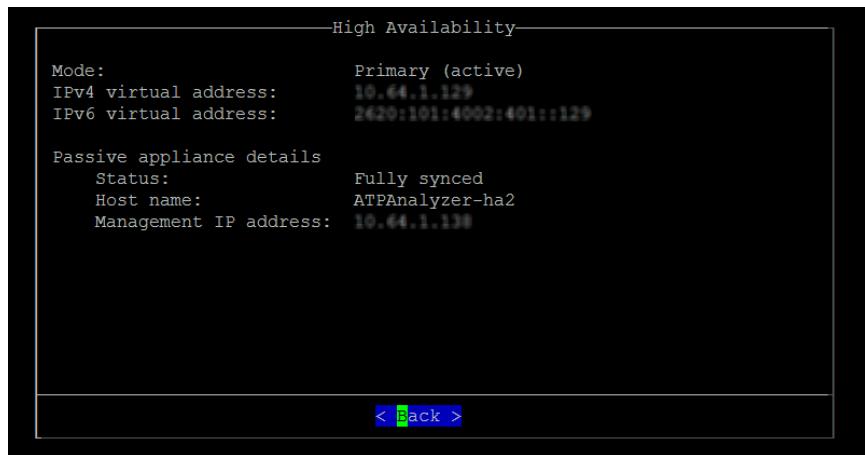
---

The **Main Menu** screen appears.



2. Select **View high availability details** and press ENTER.

The **High Availability** screen appears.



The following table shows the on-screen labels and high availability configuration details.

**TABLE 4-1. High Availability Screen**

Label	Detail
Mode	Cluster mode of the appliance.
Status	Sync status of the passive primary appliance.
Host name	Host name of the appliance.
Management IP address	Management IP address of the appliance.
IPv4 virtual address	IPv4 virtual address of the active primary appliance.
IPv6 virtual address	IPv6 virtual address of the active primary appliance.

3. (Optional) On the passive primary appliance, press TAB to navigate to **Detach**, and then press ENTER to detach the passive primary appliance.



**Note**

Detaching the passive primary appliance disables high availability.

---

4. Press TAB to navigate to **Back**, and then press ENTER.

The **Main Menu** screen appears.

---

# Chapter 5

## Migration

This chapter discusses how to migrate TippingPoint Advanced Threat Protection Analyzer 5.5 and 5.5 SP1 to 5.8.

## Migrating from Previous Versions

TippingPoint Advanced Threat Protection Analyzer 5.8 supports direct migration of data and configuration settings from the following versions:

- TippingPoint Advanced Threat Protection Analyzer 5.5
- TippingPoint Advanced Threat Protection Analyzer 5.5 SP1

This procedure outlines the steps for migrating the data and configuration settings.



### Important

If you have multiple TippingPoint Advanced Threat Protection Analyzer appliances deployed and configured to form a cluster, please perform these tasks:

**TABLE 5-1. Cluster Configurations Upgrade Tasks**

CLUSTER CONFIGURATION	TASKS
High availability cluster	<ol style="list-style-type: none"><li>1. Detach the passive primary appliance.</li><li>2. Individually upgrade both the active primary appliance and the passive primary appliance by performing the tasks as described in the main task section below.</li><li>3. Add the passive primary appliance to the cluster again.</li></ol>
Load-balancing cluster	Individually upgrade all TippingPoint Advanced Threat Protection Analyzer appliances.
High availability cluster with load balancing	<ol style="list-style-type: none"><li>1. Detach the passive primary appliance.</li><li>2. Individually upgrade both the active primary appliance and the passive primary appliance by performing the tasks as described in the main task section below.</li><li>3. Add the passive primary appliance to the cluster again.</li><li>4. Individually upgrade all secondary appliances by performing the tasks as described in the main task section below.</li></ol>

---

## Procedure

1. On the logon page of the management console, select **Extended** and then log on using a valid user name and password.
2. Go to **Administration > Updates**, and then click the **Firmware** tab.
3. Click **Choose File** or **Browse**, and then select the firmware upgrade file.
4. Click **Apply**.

---



### Important

Do not close or refresh the browser, navigate to another page, perform tasks on the management console, or power off the appliance until updating is complete.

TippingPoint Advanced Threat Protection Analyzer will automatically restart after the upgrade is complete.

---

5. Clear the browser cache.

For details, see [Clearing the Browser Cache on page 5-4](#)

---

## What to do next



### Note

- After migration, the ActiveUpdate schedule still retains the old setting as configured in the previous version. TippingPoint Advanced Threat Protection Analyzer does not update the schedule to the new default setting of 15 minutes.
- After upgrading/migrating to this release, the proxy setting for the Virtual Analyzer is not automatically configured to use the global proxy setting, even if the previous Virtual Analyzer network has been configured to use the management network. The proxy setting for the Virtual Analyzer will be empty by default after upgrade/migration.

---

# Clearing the Browser Cache

---

## Procedure

1. On Chrome™:
  - a. Go to **Settings**.
  - b. Click **Show advanced settings....**
  - c. Under **Privacy**, click **Clear browsing data....**
  - d. Select **Cookies and other site and plug-in data** and **Cached images and files**.
  - e. Click **Clear browsing data**.
2. On Internet Explorer®:
  - a. Go to **Tools > Internet Options > General**.
  - b. Under **Browsing history**, click **Delete**.  
The **Delete Browsing History** window opens.
  - c. Select **Temporary Internet files and website files**, and **Cookies and Website data**.
  - d. Click **Delete**.  
The **Delete Browsing History** window closes.
  - e. Click **OK**.
3. On Mozilla Firefox®:
  - a. Go to **Options > Privacy**.
  - b. Click **clear your recent history**.
  - c. Select **Cookies and Cache**.
  - d. Click **Clear now**.

# Chapter 6

## Technical Support

Learn about the following topics:

- *Troubleshooting Resources on page 6-2*
- *Contacting Trend Micro on page 6-3*
- *Sending Suspicious Content to Trend Micro on page 6-4*
- *Other Resources on page 6-5*

## Troubleshooting Resources

Before contacting technical support, consider visiting the following Trend Micro online resources.

### Using the Support Portal

The Trend Micro Support Portal is a 24x7 online resource that contains the most up-to-date information about both common and unusual problems.

---

#### Procedure

1. Go to <http://esupport.trendmicro.com>.
2. Select from the available products or click the appropriate button to search for solutions.
3. Use the **Search Support** box to search for available solutions.
4. If no solution is found, click **Contact Support** and select the type of support needed.



#### Tip

To submit a support case online, visit the following URL:

<http://esupport.trendmicro.com/srf/SRFMain.aspx>

---

A Trend Micro support engineer investigates the case and responds in 24 hours or less.

---

### Threat Encyclopedia

Most malware today consists of blended threats, which combine two or more technologies, to bypass computer security protocols. Trend Micro combats this complex malware with products that create a custom defense strategy. The Threat Encyclopedia

provides a comprehensive list of names and symptoms for various blended threats, including known malware, spam, malicious URLs, and known vulnerabilities.

Go to <http://about-threats.trendmicro.com/us/threatencyclopedia#malware> to learn more about:

- Malware and malicious mobile code currently active or "in the wild"
- Correlated threat information pages to form a complete web attack story
- Internet threat advisories about targeted attacks and security threats
- Web attack and online trend information
- Weekly malware reports

## Contacting Trend Micro

In the United States, Trend Micro representatives are available by phone or email:

Address	Trend Micro, Incorporated 225 E. John Carpenter Freeway, Suite 1500 Irving, Texas 75062 U.S.A.
Phone	Phone: +1 (817) 569-8900 Toll-free: (888) 762-8736
Website	<a href="http://www.trendmicro.com">http://www.trendmicro.com</a>
Email address	<a href="mailto:support@trendmicro.com">support@trendmicro.com</a>

- Worldwide support offices:  
<http://www.trendmicro.com/us/about-us/contact/index.html>
- Trend Micro product documentation:  
<http://docs.trendmicro.com>

## Speeding Up the Support Call

To improve problem resolution, have the following information available:

- Steps to reproduce the problem
- Appliance or network information
- Computer brand, model, and any additional connected hardware or devices
- Amount of memory and free hard disk space
- Operating system and service pack version
- Version of the installed agent
- Serial number or Activation Code
- Detailed description of install environment
- Exact text of any error message received

## Sending Suspicious Content to Trend Micro

Several options are available for sending suspicious content to Trend Micro for further analysis.

### Email Reputation Services

Query the reputation of a specific IP address and nominate a message transfer agent for inclusion in the global approved list:

<https://ers.trendmicro.com/>

Refer to the following Knowledge Base entry to send message samples to Trend Micro:

<http://esupport.trendmicro.com/solution/en-US/1112106.aspx>

## File Reputation Services

Gather system information and submit suspicious file content to Trend Micro:

<http://esupport.trendmicro.com/solution/en-us/1059565.aspx>

Record the case number for tracking purposes.

## Web Reputation Services

Query the safety rating and content type of a URL suspected of being a phishing site, or other so-called "disease vector" (the intentional source of Internet threats such as spyware and malware):

<http://global.sitesafety.trendmicro.com/>

If the assigned rating is incorrect, send a re-classification request to Trend Micro.

## Other Resources

In addition to solutions and support, there are many other helpful resources available online to stay up to date, learn about innovations, and be aware of the latest security trends.

## Download Center

From time to time, Trend Micro may release a patch for a reported known issue or an upgrade that applies to a specific product or service. To find out whether any patches are available, go to:

<http://www.trendmicro.com/download/>

If a patch has not been applied (patches are dated), open the Readme file to determine whether it is relevant to your environment. The Readme file also contains installation instructions.

## Documentation Feedback

Trend Micro always seeks to improve its documentation. If you have questions, comments, or suggestions about this or any Trend Micro document, please go to the following site:

<http://www.trendmicro.com/download/documentation/rating.asp>

# Appendix A

## Getting Started

This chapter describes how to get started with TippingPoint Advanced Threat Protection Analyzer and configure initial settings.

## The Management Console

TippingPoint Advanced Threat Protection Analyzer provides a built-in management console for configuring and managing the product.

Open the management console from any computer on the management network with the following resources:

- Microsoft Internet Explorer™ 9, 10, or 11
- Microsoft Edge™
- Google Chrome™
- Mozilla Firefox™

To log on, open a browser window and type the following URL:

`https://<Appliance IP Address>/pages/login.php`

This opens the logon screen, which shows the following options:

The screenshot shows the logon interface for the TippingPoint Advanced Threat Protection Analyzer. At the top, the Trend Micro logo is on the left, and the product name "TippingPoint™ Advanced Threat Protection Analyzer" is to its right. Below this is a horizontal red line. The main area contains three input fields: "User name:" with an empty text box, "Password:" with an empty text box, and "Session duration:" with a dropdown menu set to "Default". Below these fields is a red "Log On" button. At the bottom of the screen, a grey footer bar contains the text "Copyright © 2016 Trend Micro Incorporated. All rights reserved."

**TABLE A-1. Management Console Logon Options**

OPTION	DETAILS
User name	Type the logon credentials (user name and password) for the management console.
Password	<p>Use the default administrator logon credentials when logging on for the first time:</p> <ul style="list-style-type: none"> <li>• User name: <code>admin</code></li> <li>• Password: <code>Admin1234!</code></li> </ul> <p>Trend Micro recommends changing the password after logging on to the management console for the first time.</p> <p>Configure user accounts to allow other users to access the management console without using the administrator account. For details, see <a href="#">Accounts Tab on page A-3</a>.</p>
Session duration	<p>Choose how long you would like to be logged on.</p> <ul style="list-style-type: none"> <li>• <b>Default:</b> 10 minutes</li> <li>• <b>Extended:</b> 1 day</li> </ul> <p>To change these values, navigate to <b>Administration &gt; System Settings</b> and click the <b>Session Timeout</b> tab.</p>
Log On	Click <b>Log On</b> to log on to the management console.

## Accounts Tab

Use the **Accounts** tab, in **Administration > Accounts / Contacts**, to create and manage user accounts. Users can use these accounts, instead of the default administrator account, to access the management console.

Accounts / Contacts					
Actions		Fields			Search
Add	Edit	Delete	Unlock		
Name	User Name	Description	Role	Locked?	
admin	admin		Administrator	No	

Some settings are shared by all user accounts, while others are specific to each account.

This screen includes the following options.

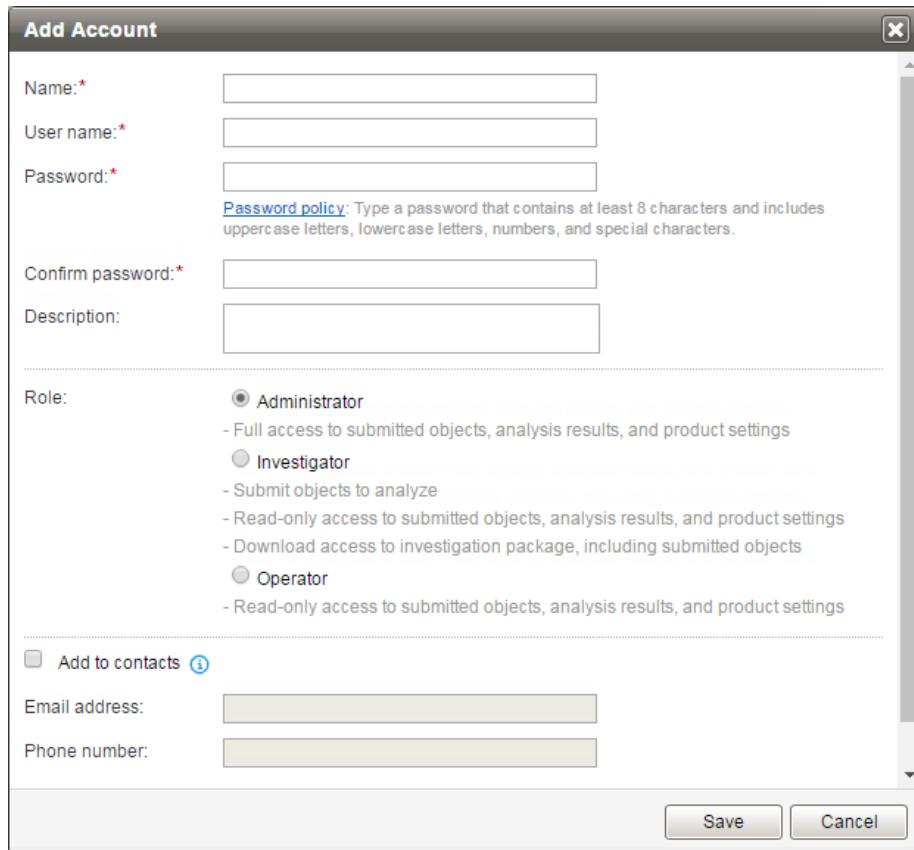
**TABLE A-2. Accounts Tasks**

Task	Steps
Add	Click <b>Add</b> to add a new user account. This opens the <b>Add Account</b> window, where you specify settings for the account. For details, see <a href="#">Add Account Window on page A-5</a> .
Edit	Select a user account and then click <b>Edit</b> to edit its settings. This opens the <b>Edit Account</b> window, which contains the same settings as the <b>Add Account</b> window. For details, see <a href="#">Add Account Window on page A-5</a> .  Only one user account can be edited at a time.
Delete	Select one or more user accounts to delete and then click <b>Delete</b> .   <b>Important</b> <ul style="list-style-type: none"><li>• You cannot delete the default TippingPoint Advanced Threat Protection Analyzer administrator account.</li><li>• You cannot delete the logged-on account.</li></ul>
Unlock	TippingPoint Advanced Threat Protection Analyzer includes a security feature that locks an account in case the user typed an incorrect password five times in a row. This feature cannot be disabled. Accounts locked this way, including administrator accounts, unlock automatically after ten minutes. The administrator can manually unlock accounts that have been locked.  Only one user account can be unlocked at a time.
Sort Column Data	Click a column title to sort the data below it.
Search	If there are many entries in the table, type some characters in the Search text box to narrow down the entries. As you type, the entries that match the characters you typed are displayed. TippingPoint Advanced Threat Protection Analyzer searches all cells in the table for matches.

Task	Steps
Records and Pagination Controls	The panel at the bottom of the screen shows the total number of user accounts. If all user accounts cannot be displayed at the same time, use the pagination controls to view the accounts that are hidden from view.

## Add Account Window

The **Add Account** window appears when you click **Add** on the **Accounts** tab.



The screenshot shows the 'Add Account' dialog box. It contains fields for Name, User name, Password, Confirm password, and Description. Below these is a 'Role' section with three radio button options: Administrator (selected), Investigator, and Operator. The 'Administrator' role includes 'Full access to submitted objects, analysis results, and product settings'. The 'Investigator' role includes 'Submit objects to analyze', 'Read-only access to submitted objects, analysis results, and product settings', and 'Download access to investigation package, including submitted objects'. The 'Operator' role includes 'Read-only access to submitted objects, analysis results, and product settings'. At the bottom, there is a checkbox for 'Add to contacts' with a help icon, and fields for Email address and Phone number. The dialog has 'Save' and 'Cancel' buttons at the bottom right.

Add Account	
Name:*	<input type="text"/>
User name:*	<input type="text"/>
Password:*	<input type="password"/>
<small><b>Password policy:</b> Type a password that contains at least 8 characters and includes uppercase letters, lowercase letters, numbers, and special characters.</small>	
Confirm password:*	<input type="password"/>
Description:	<input type="text"/>
<hr/>	
Role:	<input checked="" type="radio"/> Administrator - Full access to submitted objects, analysis results, and product settings <input type="radio"/> Investigator - Submit objects to analyze - Read-only access to submitted objects, analysis results, and product settings - Download access to investigation package, including submitted objects <input type="radio"/> Operator - Read-only access to submitted objects, analysis results, and product settings
<hr/>	
<input type="checkbox"/> Add to contacts <small>①</small>	
Email address:	<input type="text"/>
Phone number:	<input type="text"/>
<hr/>	
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

This window includes the following options.

**TABLE A-3. Add Account Window**

FIELD	DETAILS
Name	Type the name of the account owner.
User name and password	<p>Type an account name that does not exceed 40 characters.</p> <p>Type a password with at least eight characters and then confirm it.</p> <p>If you want to use a stricter password, configure the global password policy in <b>Administration &gt; System Settings &gt; Password Policy</b> tab. The password policy will be displayed in the window and must be satisfied before you can add a user account.</p> <p>When a user exceeds the number of retries allowed while entering incorrect passwords, TippingPoint Advanced Threat Protection Analyzer sets the user account to inactive (locked). You can unlock the account in the <b>Accounts</b> screen.</p> <p> <b>Tip</b> Record the user name and password for future reference.</p>
Description	(Optional) Type a description that does not exceed 40 characters.
Role	Select the role and associated permissions of this user account. <ul style="list-style-type: none"><li><b>Administrator:</b> Users have full access to submitted objects, analysis results, and product settings</li><li><b>Investigator:</b> Users have read-only access to submitted objects, analysis results, and product settings, but can submit objects and download the investigation package, including submitted objects</li><li><b>Operator:</b> Users have read-only access to submitted objects, analysis results, and product settings</li></ul>
Add to contacts	Select to add this user account to the <b>Contacts</b> list.
Email address	Type the email address of the account owner.
Phone number	(Optional) Type the phone number of the account owner.

# Getting Started Tasks

---

## Procedure

1. Activate the product license using a valid Activation Code. For details, see [License on page A-8](#).
2. Specify the TippingPoint Advanced Threat Protection Analyzer host name and IP address. For details, see [Network Tab on page A-11](#).
3. Configure proxy settings if TippingPoint Advanced Threat Protection Analyzer connects to the management network or Internet through a proxy server. For details, see [Proxy Tab on page A-12](#).
4. Configure date and time settings to ensure that TippingPoint Advanced Threat Protection Analyzer features operate as intended. For details, see [Time Tab on page A-14](#).
5. Configure SMTP settings to enable sending of notifications through email. For details, see [SMTP Tab on page A-16](#).
6. Import sandbox instances to Virtual Analyzer. For details, see [Importing an Image on page A-18](#).
7. Configure Virtual Analyzer network settings to enable sandbox instances to connect to external destinations. For details, see [Enabling External Connections on page A-19](#).
8. (Optional) Deploy and configure additional TippingPoint Advanced Threat Protection Analyzer appliances for use in a high availability or load-balancing cluster. For details, see [Cluster Tab on page A-21](#).
9. Configure supported Trend Micro products for integration with TippingPoint Advanced Threat Protection Analyzer.  
For details, see the TippingPoint Advanced Threat Protection Analyzer 5.8 Administrator's Guide.
10. Adjust Virtual Analyzer resource allocation between all sources by assigning weight and timeout values to all sources that submit objects to TippingPoint Advanced Threat Protection Analyzer for analysis.

For details, see the TippingPoint Advanced Threat Protection Analyzer 5.8 Administrator's Guide.

## License

Use the **License** screen, in **Administration > License**, to view, activate, and renew the TippingPoint Advanced Threat Protection Analyzer license.

## License

Product Details	
Product name:	Trend Micro TippingPoint Advanced Threat Protection Analyzer
Firmware version:	1.0.0.0
License agreement:	<a href="#">Trend Micro License Agreement</a>

License Details	
Activation Code:	<input type="text" value="XXXXXXXX-XXXX-XXXX-XXXX-XXXX"/> <a href="#">New Activation Code</a>
Status:	<span>Activated</span>   <a href="#">View details online</a>
Type:	Full
Expiration date:	2019-11-30 <a href="#">Refresh</a>

The TippingPoint Advanced Threat Protection Analyzer license includes product updates (including ActiveUpdate) and basic technical support (“Maintenance”) for one (1) year from the date of purchase. The license allows you to upload threat samples for analysis, and to access Trend Micro Threat Connect from Virtual Analyzer. In addition, the license allows you to send samples to the Trend Micro cloud sandboxes for analysis.

After the first year, Maintenance must be renewed on an annual basis at the current Trend Micro rate.

A Maintenance Agreement is a contract between your organization and Trend Micro. It establishes your right to receive technical support and product updates in return for the

payment of applicable fees. When you purchase a Trend Micro product, the License Agreement you receive with the product describes the terms of the Maintenance Agreement for that product.

The Maintenance Agreement has an expiration date. Your License Agreement does not. If the Maintenance Agreement expires, you will no longer be entitled to receive technical support from Trend Micro or access Trend Micro Threat Connect.

Typically, 90 days before the Maintenance Agreement expires, you will start to receive email notifications, alerting you of the pending discontinuation. You can update your Maintenance Agreement by purchasing renewal maintenance from your Reseller, Trend Micro sales, or on the Trend Micro Customer Licensing Portal at:

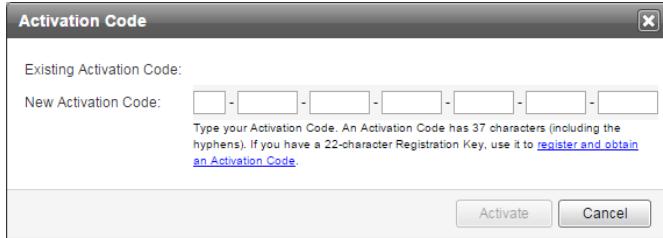
<https://clp.trendmicro.com/fullregistration>

The **License** screen includes the following information and options.

**TABLE A-4. Product Details**

FIELD	DETAILS
Product name	Displays the name of the product.
Firmware version	Displays the full build number of the product.
License agreement	Displays a link to the <b>Trend Micro License Agreement</b> . Click the link to view or print the license agreement.

**TABLE A-5. License Details**

FIELD	DETAILS
Activation Code	<p>View the Activation Code in this section. If your license has expired, obtain a new Activation Code from Trend Micro. To renew the license, click <b>New Activation Code</b>, and type the new Activation Code.</p>  <p>The <b>License</b> screen reappears displaying the number of days left before the product expires.</p>
Status	<p>Displays either <b>Activated</b>, <b>Not Activated</b>, <b>Grace Period</b>, <b>Expired</b>, or <b>Evaluation Expired</b>.</p> <p>Click <b>View details online</b> to view detailed license information from the Trend Micro website. If the status changes (for example, after you renewed the license) but the correct status is not indicated in the screen, click <b>Refresh</b>.</p>
Type	<ul style="list-style-type: none"><li>• Full: Provides access to all product features</li><li>• Evaluation: Provides access to all product features</li></ul>
Expiration date	View the expiration date of the license. Renew the license before it expires.

## Network Tab

Use this screen to configure the host name, the IPv4 and IPv6 addresses of the TippingPoint Advanced Threat Protection Analyzer appliance, and other network settings.

### System Settings

Host name:

**eth0 (management)**

	IPv4*	IPv6
IP address:	<input type="text"/>	<input type="text"/>
Subnet mask / prefix length:	<input type="text"/> Subnet mask	<input type="text"/>
Gateway:	<input type="text"/>	<input type="text"/>
DNS server 1:	<input type="text"/>	<input type="text"/>
DNS server 2:	<input type="text"/> Optional	<input type="text"/>

**Save** **Cancel**

An IPv4 address is required and the default is 192.168.252.2. Modify the IPv4 address immediately after completing all deployment tasks.



### Note

You can also use the **Preconfiguration Console** to modify the network settings.

For details, see the [Configuring Network Addresses on the Preconfiguration Console on page 4-4](#).

TippingPoint Advanced Threat Protection Analyzer uses the specified IP addresses to connect to the Internet when accessing Trend Micro hosted services, including the Smart Protection Network, the ActiveUpdate server, and Threat Connect. The IP addresses also determine the URLs used to access the management console.

The following table lists configuration limitations.

**TABLE A-6. Configuration Limitations**

FIELD	LIMITATION
Host name	Cannot be modified when using high availability
IPv4 address	<ul style="list-style-type: none"><li>Must differ from IPv4 virtual address</li><li>Must be in the same network segment as IPv4 virtual address</li></ul>
IPv6 address	<ul style="list-style-type: none"><li>Must differ from IPv6 virtual address</li><li>Must be in the same network segment as IPv6 virtual address</li><li>Cannot be deleted if IPv6 virtual address has been configured</li><li>Cannot be added or deleted when using high availability</li></ul>

## Proxy Tab

Specify proxy settings if TippingPoint Advanced Threat Protection Analyzer connects to the Internet or management network through a proxy server.

### System Settings

---

Network    Proxy    SMTP    Time    SNMP    Password Policy    Session Timeout    Cluster    High Availability

Use an HTTP proxy server  
Server name or IP address:   
Port:

Proxy server requires authentication  
User name:   
Password:

---

Configure the following settings.

**TABLE A-7. Proxy Tab Tasks**

Task	Steps
Use an HTTP proxy server	Select this option to enable proxy settings.
Server name or IP address	<p>Type the proxy server host name or IPv4 address, or IPv6 address.</p> <p>The management console does not support host names with double-byte encoded characters. If the host name includes such characters, type its IP address instead.</p>
Port	Type the port number that TippingPoint Advanced Threat Protection Analyzer uses to connect to the proxy server.
Proxy server requires authentication	<p>Select this option if the connection to the proxy server requires authentication. TippingPoint Advanced Threat Protection Analyzer supports the following authentication methods:</p> <ul style="list-style-type: none"> <li>• No authentication</li> <li>• Basic authentication</li> <li>• Digest authentication</li> <li>• NTMLv1 authentication</li> </ul>
User name	<p>Type the user name used for authentication.</p> <p> <b>Note</b> This option is only available if <b>Proxy server requires authentication</b> is enabled.</p>
Password	<p>Type the password used for authentication.</p> <p> <b>Note</b> This option is only available if <b>Proxy server requires authentication</b> is enabled.</p>

## Time Tab

Configure date and time settings immediately after installation.

### Procedure

1. Go to **Administration > System Settings** and click the **Time** tab.

The **Time** screen appears.

#### System Settings

Date and time: 01/13/2017 Friday 01:32:40 PM  
[Set date and time](#)

Time zone: (GMT +8:00) Beijing, Chongqing, Hong Kong, Shanghai, Urumqi  
[Set time zone](#)

Format: en-US (12/31/2015 01:30:55 PM)  
[Set format](#)

2. Click **Set date and time**.

The settings panel appears.

Date and time: 01/13/2017 Friday 01:34:54 PM

#### Set date and time

Connect to an NTP server   
 Set manually

[Save](#) [Cancel](#)

3. Select one of the following methods and configure the applicable settings.

- Select **Connect to an NTP server** and type the host name, IPv4 address, or IPv6 address of the NTP server.

- Select **Set manually** and configure the time.

4. Click **Save**.

5. Click **Set time zone**.

The settings panel appears.

Time zone: **(GMT +8:00) Beijing, Chongqing, Hong Kong, Shanghai, Urumqi**

▲ Set time zone

Daylight Saving Time (DST) is used when applicable.

6. Select the applicable time zone.



**Note**

Daylight Saving Time (DST) is used when applicable.

---

7. Click **Save**.

8. Click **Set format**.

The settings panel appears.

Format: **en-US (12/31/2015 01:30:55 PM)**

▲ Set format

9. Select the preferred date and time format.

10. Click **Save**.

---

## SMTP Tab

TippingPoint Advanced Threat Protection Analyzer uses SMTP settings when sending notifications through email.

### System Settings

---

Network    Proxy    **SMTP**    Time    SNMP    Password Policy    Session Timeout    Cluster    High Availability

Server address:

Port:

Connection security:

Sender email address:

SMTP server requires authentication

User name:

Password:

---

---

---

### Procedure

1. Go to **Administration > System Settings** and click the **SMTP** tab.
2. Specify the following details:

**TABLE A-8. SMTP Tab Tasks**

FIELD	STEPS
Server address	Type the SMTP server host name, IPv4 address, or IPv6 address.  The management console does not support host names with double-byte encoded characters. If the host name includes such characters, type its IP address instead.
Port	Type the port number used by the SMTP server.

FIELD	STEPS
Connection security	Specify the type of security used for the connection. Available values are: None, STARTTLS, SSL/TLS.
Sender email address	Type the email address of the sender. The default value is <code>notifications@atpa.local</code> .
SMTP server requires authentication	If the server requires authentication, select <b>SMTP server requires authentication</b> and specify a user name and password.



### WARNING!

Ensure that the user name and password to be specified is valid for the SMTP server. Connections made using an incorrect user name and password may cause some SMTP servers to reject all network request originating from the TippingPoint Advanced Threat Protection Analyzer server.

3. (Optional) To test the connection to the external SMTP server, do the following:
  - a. Click **Test Connection**.
  - b. Type the recipient email address.
  - c. Click **OK**.



### Note

TippingPoint Advanced Threat Protection Analyzer does not send a test email message to the recipient.

4. Click **Save**.

## Importing an Image

The hardware specifications of your product determine the number of images that you can import and the number of instances that you can deploy per image.

Virtual Analyzer supports OVA files up to 20GB in size.



### Important

Virtual Analyzer stops analysis and keeps all samples in the queue whenever an image is added or deleted, or when instances are modified.

---

### Procedure

1. Go to **Virtual Analyzer > Sandbox Management** and click the **Images** tab.  
The **Images** screen appears.
2. Click **Import**.

The **Import Image** screen appears.

Import Image

Virtual Analyzer stops processing samples when importing images. The number of instances to be deployed determines the duration of the import process.

Source:  HTTP or FTP server  Network folder

Name:

Instances:

URL:

Connect through a proxy server

User name:

Password:

1 of 1 instances allocated

3. Select an image source and configure the applicable settings.
  - a. Type a permanent image name with a maximum of 50 characters.
  - b. Choose the number of instances to allocate for the image.



### Note

Trend Micro recommends distributing the number of instances evenly across all deployed images. Submitted objects must pass through all images before analysis results are generated.

- c. Type the URL or network share path of the OVA file.
- d. (Optional) Select **Connect through a proxy sever**.
- e. (Optional) Type the logon credentials if authentication is required.

4. Click **Import**.

Virtual Analyzer validates the OVA files before starting the import process.



#### Note

If you selected **HTTP or FTP server**, TippingPoint Advanced Threat Protection Analyzer downloads the images first before importing into Virtual Analyzer. The process can only be canceled before the download completes.

## Enabling External Connections

Sample analysis is paused and settings are disabled whenever Virtual Analyzer is being configured.

---

### Procedure

1. Go to **Virtual Analyzer > Sandbox Management** and click the **Network Connection** tab.  
The **Network Connection** screen appears.
2. Select **Enable external connections**.

The settings panel appears.

Specify how sandbox instances connect to external destinations. Enabling access to the Internet and other hosts may result in malicious connections.

Enable external connections

Connection:  Custom  Management network

Network adapter: 1 - Connected

IP addressing:

IP address:

Subnet mask:

Gateway:

DNS:

Proxy setting:

Protocol: HTTP

Server address:

Port:

Proxy server requires authentication

User name:

Password:

---

3. Select the type of connection to be used by sandbox instances.

- Custom: Any user-defined network



**Important**

Trend Micro recommends using an environment isolated from the management network.

---

- Management network: Default organization Intranet



**WARNING!**

Enabling connections to the management network may result in malware propagation and other malicious activity in the network.

---

4. If you selected **Custom**, specify the following:

- Network adapter: Select an adapter with a linked state.

- IP address: Type an IPv4 address.
- Subnet mask
- Gateway
- DNS

5. If the sandbox requires a proxy server for network connection, select **Use a dedicated proxy server**, and specify the following

- Server address
- Port
- User name: This option is only available if **Proxy server requires authentication** is enabled.
- Password: This option is only available if **Proxy server requires authentication** is enabled.

6. Click **Save**.

---

## Cluster Tab

Multiple standalone TippingPoint Advanced Threat Protection Analyzer appliances can be deployed and configured to form a cluster that provides fault tolerance, improved performance, or a combination thereof.

Depending on your requirements and the number of TippingPoint Advanced Threat Protection Analyzer appliances available, you may deploy the following cluster configurations:

**TABLE A-9. Cluster Configurations**

CLUSTER CONFIGURATION	DESCRIPTION
High availability cluster	In a high availability cluster, one appliance acts as the active primary appliance, and one acts as the passive primary appliance. The passive primary appliance automatically takes over as the new active primary appliance if the active primary appliance encounters an error and is unable to recover.
Load-balancing cluster	In a load-balancing cluster, one appliance acts as the active primary appliance, and any additional appliances act as secondary appliances. The secondary appliances process submissions allocated by the active primary appliance for performance improvement.
High availability cluster with load balancing	In a high availability cluster with load balancing, one appliance acts as the active primary appliance, one acts as the passive primary appliance, and any additional appliances act as secondary appliances. The passive primary appliance takes over as the active primary appliance if the active primary appliance encounters an error and is unable to recover. The secondary appliances process submissions allocated by the active primary appliance for performance improvement.

The following table lists the available configuration modes and associated appliance behavior.

**TABLE A-10. Cluster Configuration Modes**

CONFIGURATION MODE	DESCRIPTION
<b>Primary (Active)</b>	<ul style="list-style-type: none"><li>Management console is fully accessible</li><li>Retains all configuration settings</li></ul>

CONFIGURATION MODE	DESCRIPTION
<b>Primary (Passive)</b>	<ul style="list-style-type: none"><li>• Management console is unavailable</li><li>• Automatically configured based on the settings of the active primary appliance</li><li>• On standby</li><li>• Takes over as the active primary appliance if the active primary appliance encounters an error and is unable to recover</li><li>• Does not process submissions</li></ul>

CONFIGURATION MODE	DESCRIPTION
<b>Secondary</b>	<ul style="list-style-type: none"><li>Automatically configured based on the settings of the active primary appliance</li><li>Identifies the active primary appliance using its IP address or virtual IP address</li><li>Processes submissions allocated by the active primary appliance for performance improvement</li><li>Management console only shows screens with configurable settings:<ul style="list-style-type: none"><li><b>Virtual Analyzer &gt; Sandbox Management &gt; Network Connection</b></li><li><b>Virtual Analyzer &gt; Sandbox Management &gt; Cloud Sandbox</b></li><li><b>Administration &gt; Updates &gt; Hotfixes / Patches</b></li><li><b>Administration &gt; Updates &gt; Firmware</b></li><li><b>Administration &gt; System Settings &gt; Network</b></li><li><b>Administration &gt; System Settings &gt; Cluster</b></li><li><b>Administration &gt; Accounts / Contacts &gt; Accounts</b></li><li><b>Administration &gt; Accounts / Contacts &gt; Contacts</b></li><li><b>Administration &gt; System Logs</b></li><li><b>Administration &gt; System Maintenance &gt; Network Services Diagnostics</b></li><li><b>Administration &gt; System Maintenance &gt; Power Off / Restart</b></li><li><b>Administration &gt; System Maintenance &gt; Debug</b></li><li><b>Administration &gt; License</b></li></ul></li></ul>

## Nodes List

The **Nodes** list is displayed on the active primary appliance.

The Nodes list contains the following information:

**TABLE A-11. Nodes List Columns**

COLUMN	DESCRIPTION
<b>Status</b>	Connection status of the appliance. Mouseover a status icon to view details.
<b>Mode</b>	Cluster mode of the appliance.
<b>Management IP Address</b>	Management IP address of the appliance.
<b>Host Name</b>	Host name of the appliance.
<b>Last Connected</b>	Date and time that the appliance last connected to the active primary appliance.   <b>Note</b> No data (indicated by a dash) if appliance is passive primary appliance.

COLUMN	DESCRIPTION
Details	<p>Additional details about the operational status of the appliance.</p> <ul style="list-style-type: none"><li>For standalone appliance:<ul style="list-style-type: none"><li><b>Standalone appliance:</b> The appliance is a standalone appliance.</li></ul></li><li>For passive primary appliance:<ul style="list-style-type: none"><li><b>Fully synced:</b> The passive primary appliance is fully synced to the active primary appliance.</li><li><b>Syncing n%:</b> The passive primary appliance is syncing settings from the active primary appliance.</li><li><b>Sync error:</b> The passive primary appliance is unable to connect to the active primary appliance. Verify that the appliances are directly connected using eth3, and that eth3 is not used for sandbox analysis.</li></ul></li><li>For secondary appliances:<ul style="list-style-type: none"><li><b>Inconsistent component version:</b> One or more components have different versions on the active primary appliance and secondary appliance. Use the same component versions on all appliances.</li><li><b>Not connected:</b> The active primary appliance did not receive a heartbeat from the secondary appliance within the last 10 seconds. Verify that the secondary appliance is powered on and able to connect to the active primary appliance through the network.</li><li><b>Invalid API key:</b> The secondary appliance is configured with an invalid API key. Verify the <b>Active primary API key</b> on the secondary appliance.</li><li><b>Incompatible software version:</b> The firmware, hotfix, and patch versions on the active primary appliance and secondary appliance are different. Use the same firmware, hotfix, and patch version on all appliances.</li><li><b>Unexpected error:</b> An unexpected error has occurred. If the issue persists, contact your support provider.</li></ul></li></ul>

COLUMN	DESCRIPTION
<b>Action</b>	<p>Actions that can be executed depending on the appliance mode and status.</p> <ul style="list-style-type: none"> <li>For active primary appliance: <ul style="list-style-type: none"> <li><b>Swap:</b> Swap the roles of the primary appliances. Sets the current passive primary appliance to primary mode (active) and the current active primary appliance to primary mode (passive). Appears when the passive primary appliance has synced all settings from the active primary appliance. For details, see <i>Swapping the Active Primary Appliance and the Passive Primary Appliance on page A-30</i></li> </ul> </li> <li>For passive primary appliance: <ul style="list-style-type: none"> <li><b>Detach:</b> Detach the passive primary appliance. Disables high availability and allows the passive primary appliance to be used as a standalone appliance. Appears when the passive primary appliance has synced all settings from the active primary appliance. For details, see <i>Detaching the Passive Primary Appliance from the Cluster on page A-30</i></li> <li><b>Remove:</b> Remove inaccessible passive primary appliance. Disables high availability. Appears when the active primary appliance is unable to reach the passive primary appliance through eth3. For details, see <i>Removing the Passive Primary Appliance from the Cluster on page A-30</i></li> </ul> </li> <li>For secondary appliances: <ul style="list-style-type: none"> <li><b>Remove:</b> Remove inaccessible secondary appliance. Affects object processing capacity. Secondary appliances attempt to connect to the active primary appliance every 10 seconds. Appears when the active primary appliance does not receive a heartbeat from the secondary appliance within one minute. For details, see <i>Removing a Secondary Appliance from the Cluster on page A-33</i></li> </ul> </li> </ul>

Click **Refresh** to refresh the information in the **Nodes** list.

## Adding a Passive Primary Appliance to the Cluster

The following table lists requirements that need to be fulfilled by both active primary appliance and passive primary appliance before the passive primary appliance can be added to the cluster.

**TABLE A-12. High Availability Clustering Requirements**

REQUIREMENT	DESCRIPTION
Hardware model	Must be same hardware model
Physical connection	Must be directly connected to each other using eth3
Firmware, hotfix, and patch version	Must be the same
Host name	Must be different
IP addresses	Must be symmetrical: <ul style="list-style-type: none"><li>If only IPv4 address is configured on active primary appliance, passive primary appliance cannot configure both IPv4 address and IPv6 address.</li><li>If IPv4 address and IPv6 address are configured on active primary appliance, passive primary appliance cannot only configure IPv4 address.</li></ul>
Network segment	Must be in the same network segment
Virtual IP address	Must be configured on the active primary appliance

In a high availability cluster, one appliance acts as the active primary appliance, and one acts as the passive primary appliance. The passive primary appliance automatically takes over as the new active primary appliance if the active primary appliance encounters an error and is unable to recover.



### Note

- If your network has Trend Micro Control Manager, only register the active primary appliance to Control Manager.
- When using high availability, use the virtual IP address to register.

---

## Procedure

1. Perform the installation and deployment tasks as described in [Installing the Appliance on page 3-1](#).
2. Configure the passive primary appliance.
  - a. On the management console of the passive primary appliance, go to **Administration > System Settings** and click the **Cluster** tab.
  - b. Select **Primary mode (passive)**.
  - c. Type the IPv4 address or IPv6 address of the active primary appliance in **Active primary IP address**.
  - d. Click **Test Connection**.
  - e. Click **Save**.

You will be redirected to the appliance standby screen.

---

- The passive primary appliance stops processing objects if it was previously doing so.
- The passive primary appliance will sync all settings from the active primary appliance. The total time to complete syncing depends on the appliance model.



### Important

While the appliance is syncing, it cannot:

- Take over as active primary appliance
- Switch to another mode

---

- The management console of the passive primary appliance cannot be accessed. Manage the appliance and monitor the sync status from the management console of the active primary appliance.

## Swapping the Active Primary Appliance and the Passive Primary Appliance

Swapping the primary appliances sets the current passive primary appliance to primary mode (active) and the current active primary appliance to primary mode (passive).

---

### Procedure

1. On the management console of the active primary appliance, go to **Administration > System Settings** and click the **Cluster** tab.
2. Click **Swap** to swap the primary appliances.

---

## Detaching the Passive Primary Appliance from the Cluster

Detaching the passive primary appliance disables high availability and allows the appliance to be used as a standalone appliance. After a passive primary appliance is detached, it no longer appears in the nodes list.

Detach the passive primary appliance to update or upgrade the product.



### Important

Detaching the passive primary appliance does not reset the appliance settings. Trend Micro recommends reinstalling the appliance if you want to use it as a standalone appliance.

---

---

### Procedure

1. On the management console of the active primary appliance, go to **Administration > System Settings** and click the **Cluster** tab.
2. Click **Detach** to detach the passive primary appliance from the cluster.

---

## Removing the Passive Primary Appliance from the Cluster

Removing a disconnected or abnormal passive primary appliance from the cluster reduces the clutter in the nodes list.

---

### Procedure

1. On the management console of the active primary appliance, go to **Administration > System Settings** and click the **Cluster** tab.
2. Wait for **Remove** to appear next to the passive primary appliance in the nodes list.
3. Click **Remove** to remove the passive primary appliance from the cluster.

**Note**

The passive primary appliance automatically rejoins the cluster if it reconnects to the active primary appliance.

---

## Adding a Secondary Appliance to the Cluster

Verify that the secondary appliance has the same firmware, hotfix, and patch version as the active primary appliance.

To view the appliance firmware, hotfix, and patch version, see the *TippingPoint Advanced Threat Protection Analyzer Administrator's Guide*.

Update or upgrade the appliance firmware, hotfix, and patch version as necessary. For details, see the *TippingPoint Advanced Threat Protection Analyzer Administrator's Guide*.

**Note**

- If your network has Trend Micro Control Manager, only register the active primary appliance to Control Manager.
- When using high availability, use the virtual IP address to register.

---

---

### Procedure

1. Perform the installation and deployment tasks as described in [Installing the Appliance on page 3-1](#).
2. Configure the secondary appliance.

- a. On the management console of the secondary appliance, go to **Administration > System Settings** and click the **Cluster** tab.
- b. Select **Secondary mode**.
- c. Type the IPv4 address or IPv6 address of the active primary appliance in **Active primary IP address**.



**Note**

If you are using high availability, type the IPv4 virtual address or IPv6 virtual address.

---

- d. Type the **Active primary API key**.
- e. Click **Test Connection**.



**Tip**

Secondary appliances can test their connection to the active primary appliance at any time. Click **Test Connection** to get detailed information about any connectivity problems.

---

- f. Click **Save**.

3. (Optional) Configure additional settings on the secondary appliance.

- a. Configure the sandbox network connection setting.

For details, see [Enabling External Connections on page A-19](#).

---



**Note**

Trend Micro recommends using the external network connection setting of the active primary appliance.

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- b. Configure the cloud sandbox setting.

For details, see the *TippingPoint Advanced Threat Protection Analyzer Administrator's Guide*.

- c. Configure the appliance network settings.

For details, see [Network Tab on page A-11](#).

- d. Add accounts.

For details, see [Accounts Tab on page A-3](#).

---

## Removing a Secondary Appliance from the Cluster

Removing a disconnected secondary appliance from the cluster reduces the clutter in the nodes list and widgets of the active primary appliance.

### Procedure

1. On the management console of the active primary appliance, go to **Administration > System Settings** and click the **Cluster** tab.
2. Wait for **Remove** to appear next to the secondary appliance in the nodes list.



#### Note

Secondary appliances attempt to connect to the active primary appliance every 10 seconds. If the active primary appliance does not receive a heartbeat within one minute, **Remove** appears next to the secondary appliance in the **Nodes** list.

Secondary appliances automatically rejoin the cluster if they reconnect to the active primary appliance.

3. Click **Remove** to remove the secondary appliance from the cluster.

The secondary appliance is removed from the nodes list and widgets of the active primary appliance.

---

## Replacing the Active Primary Appliance with a Secondary Appliance

If the active primary appliance is unresponsive or cannot be restored, and no passive primary appliance is deployed, it can be replaced by a secondary appliance from the same cluster.



### Tip

Trend Micro recommends deployment of a passive primary appliance for high availability. For details, see [Adding a Passive Primary Appliance to the Cluster on page A-28](#).

---



### Important

Submissions do not have a result if they were being analyzed on the active primary appliance when it becomes unresponsive.

---

## Procedure

1. Power off the active primary appliance.
2. Select a secondary appliance from the same cluster and configure it as the new active primary appliance.
  - a. On the management console of the secondary appliance, go to **Administration > System Settings** and click the **Cluster** tab.
  - b. Select **Primary mode (active)**.
  - c. Click **Save**.
3. Configure the IP address of the new active primary appliance.

For details, see [Network Tab on page A-11](#).



### Note

Trend Micro recommends using the same IP address as the original active primary appliance. This allows secondary appliances and integrated products to connect without reconfiguration.

---

4. Verify the settings on the new active primary appliance.



### Note

Settings take up to one day to propagate to secondary appliances.

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