txOne networks | Keep the Operation Running

3.0 TXOne StellarOne

Administrator's Guide

Unify your cyber security posture with one centralized console

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Certain features available in TXOne Networks products collect and send feedback regarding product usage and detection information to TXOne Networks. Some of this data is considered personal in certain jurisdictions and under certain regulations. If you do not want TXOne Networks to collect personal data, you must ensure that you disable the related features.

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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.

TXOne Networks always seeks to improve its documentation. If you have questions, comments, or suggestions about this or any TXOne Networks document, please contact us at docs@txone-networks.com.

Preface

This Administrator's Guide introduces TXOne StellarOne™ and covers all aspects of product management.

Topics in this chapter include:

About the Documentation

TXOne StellarOne™ documentation includes the following:

Documentation	Description
Readme file	Contains a list of known issues and basic installation steps. It may also contain late-breaking product information not found in the other documents.
Installation Guide	A PDF document that discusses requirements and procedures for installing StellarOne
Administrator's Guide	A PDF document that discusses StellarOne agent installation, getting started information, and server and agent management
Online Help	HTML files that provide "how to's", usage advice, and field-specific information
Knowledge Base	An online database of problem-solving and troubleshooting information. It provides the latest information about known product issues. To access the Knowledge Base, go to the following websites: https://kb.txone.com/ http://success.trendmicro.com

Audience

TXOne StellarOne™ documentation is intended for administrators responsible for StellarOne management, including agent installation. These users are expected to have advanced networking and server management knowledge.

Document Conventions

The documentation uses the following conventions.

TABLE 1. Document Conventions

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

Terminology

The following table provides the official terminology used throughout the TXOne StellarOne™ documentation:

Terminology	Description
server	The StellarOne console server program
server endpoint	The host where the StellarOne server is installed
agents	The host running the StellarProtect program
managed agents managed endpoints	The hosts running the StellarProtect program that are known to the StellarOne server program
target endpoints	The hosts where the StellarOne managed agents will be installed
Administrator (or StellarOne administrator)	The person managing the StellarOne server
StellarOne (management) console	The user interface for configuring and managing StellarOne settings and the agents managed by StellarOne
CLI	Command Line Interface
license activation	Includes the type of StellarOne server installation and the allowed period of usage that you can use the application

agent installation folder	The folder on the host that contains the StellarProtect agent files. If you accept the default settings during installation, you will find the installation folder at one of the following locations:
	`C:\Program Files\TXOne\StellarProtect`
	`C:\Program Files\TXOne\StellarProtect (Legacy Mode)`

Chapter 1

Introduction

This chapter introduces TXOne StellarOne™ and how it manages the agents providing Cyber-Physical System Detection and Response (CPSDR), Multi-Method Threat Prevention, Operations lockdown, and trusted peripheral control protection to your assets.

An overview of management functions is provided. This manual will focus on its use for StellarProtect™: an OT/ICS-compatible, high performance and zero touch endpoint protection solution, and StellarProtect (Legacy Mode)™: a simple, no-maintenance solution to lock down and protect fixed-function computers, helping protect businesses against security threats and increase productivity.

Topics in this chapter include:

About TXOne Stellar

TXOne Stellar provides a context-focused security solution for OT endpoints and cyber-physical systems (CPS), aiming to defend operation stability with continuous detection and response aligned to the specific requirements of the OT domain.

TXOne Stellar platform is composed of the centralized menagement console server and unified agents apt for legacy OT devices and modern cyber-physical systems.

- StellarOne™ , designed to streamline administration of the agents installed on modernized systems and legacy systems, along with its intuitive centralized management, consistent policy enforcement, and action-oriented alerts that empower security teams of all sizes and skill levels to successfully mature their organization's security posture.
- StellarProtect™ / StellarProtect (Legacy Mode), using the single-agent design that delivers seamless asset-centric protection and ensures coverage for modern CPS and legacy OT devices throughout their entire asset lifecycle. The lightweight unified agent simplifies security by combining CPS Detection and Response (CPSDR), threat prevention, operations lockdown, and device control.
    - CPSDR: Embodied within the advanced Operations Behavior Anomaly Detection feature, which establishes a unique baseline fingerprint of each agent-device during practicable operating states and performs fingerprint deviation analysis by means of an expansive industrial application repository and ransomware detection engine to defend against unexpected changes that may impact stability.

      Moreover, TXOne Stellar brings the contextualization of security into an operation-led view to allow both the operation and security teams to achieve their goals without needing to compromise. To illustrate, if a device suddenly tried to start launching different applications, it would be blocked from doing so.

      From the operation view, this may be an unplanned auto-update that, if run, would take the device offline to reboot. From a security

view, this could be an attempt to access an encryption library that is about to be used to execute ransomware. By applying the operation context, both security and operation-initiated changes can be detected, and appropriate responses are taken.

In both cases, CPSDR stopped the event before it could occur. The security team followed up and resolved the ransomware infection in a different part of the environment. The operation team scheduled the required update for during an upcoming planned maintenance window.

- Multi-Method Threat Prevention: Provides advanced threat scan on the basis of ICS root of trust and operations-focused machine learning to secure the agent-devices against known and unknown malware threats without compromising operational availability.
- Operations Lockdown: For fixed-function and devices with limited patching availability,operations lockdown enforcement prohibits unauthorized changes, including alterations to registry and function parameters.
- Trusted Peripheral Control: Unauthorized access from external sources, such as USB devices, is configurable and controlled to reduce physical access threats.

Leveraging an expansive ICS application and certificate library and exclusive ransomware detection engine, TXOne Stellar maintains CPS operational integrity through behavioral anomaly detection and eliminates configuration drift for legacy and fixed-use assets with device lockdown. Security teams can confidently deliver detection and response outcomes across the OT terrain, with TXOne Stellar effectively secure organization's security posture while maintaining its business operations stability.

Key Features and Benefits

The TXOne StellarOne™ management console provides following features and benefits.

TABLE 1-1. Features and Benefits

FEATURE	BENEFIT
Cyber-Physical System Detection and Response (CPSDR)	The CPSDR requires a deep understanding of what the expected behaviors for each device are. Embodied within the advanced Operations Behavior Anomaly Detection feature, which primarily defends against unexpected changes that may impact operational stability by comparing daily operation processes and behaviors with a unique baseline of each agent-device and performing comprehensive behavioral analysis not only via identifying baseline deviation but also using TXOne Networks' exclusive industrial application repository and ransomware detection engine.
Dashboard	The web console dashboard provides summarized information about monitored agents. Administrators can check deployed agent status easily, and can generate security reports (Legacy Mode only) related to specific agent activity for specified periods.
Centralized Agent Management	StellarOne allows administrators to perform the following tasks: • Monitor StellarProtect/StellarProtect (Legacy Mode) agent status • Examine connection status • View configurations • Collect agent logs on-demand or by policy (Legacy Mode only) • Turn agent Application Lockdown on or off • Enable or disable agent Device Control • Configure agent Maintenance Mode settings • Update agent components • Initialize the Approved List • Deploy agent patches • Add trusted files and USB devices • Export agents' information • Import/Export agents' configuration settings or Approved List (Legacy Mode only)

Feature	Benefit
Centralized Event Management	On endpoints protected by StellarProtect/StellarProtect (Legacy Mode) agents, administrators can monitor status and events, as well as respond when files are blocked from running. StellarOne provides event management features that let administrators quickly know about and take action on the blocked-file events.
Server Event Auditing	Operations performed by StellarOne web console accounts are logged. StellarOne records an operating log for each account, tracking who logs on, who deletes event logs, and more.

What's New

TXOne StellarOne™ 3.0 provides following new features and enhancements.

Table 1-2. What's New in TXOne StellarOne™ 3.0

Feature	Benefit
Cyber-Physical System Detection and Response (CPSDR)	Embodied within the advanced Operations Behavior Anomaly Detection feature, which establishes a unique baseline fingerprint of each agent-device during practicable operating states and performs fingerprint deviation analysis by means of an expansive industrial application repository and exclusive ransomware detection engine to defend against unexpected changes that may impact stability. Since every agent continuously analyzes its host device to establish and maintain a unique baseline fingerprint, in real-time, unexpected behaviors and deviations from this fingerprint can be detected at the individual agent level and then secondarily at the centralized control level to inform wider instability issues and prompt preventative actions to be taken.
Scan components displayed on the General Info for StellarProtect (Legacy Mode)	You can view the details of the scan components for the StellarProtect (Legacy Mode) agent on the General Info page now.
Add File Information in the exported event data	The exported event logs now contain the File Information details.

Chapter 2

Getting Started

This chapter introduces how to access and configure the StellarOne web-based management console.

Topics in this chapter include:

About the Web Console

TXOne StellarOne is a management console with web GUI for users to access via web browsers. StellarOne is packaged in an Open Virtual Appliance (OVA) or Virtual Hard Disk v2 (VHDX) format and supports 4 types of platforms: VMware ESXi, VMware Workstation, Windows Hyper-V systems, and AWS EC2.

Note

Supported browsers:

- Google Chrome 87 or later versions
- Microsoft Edge 79 or later versions
- Mozilla Firefox 78 or later versions

For users who log on StellarOne for the first time, please refer to *Opening StellarOne Management Console on page 2-2*.

For more details about the installation for StellarOne, please refer to the StellarOne Installation Guide.

Opening StellarOne Management Console

Procedure

1. In a web browser, type the address of the StellarOne in the following format: `https://<targetserver IP address>`. The log on screen appears.
2. Enter your credentials (user ID and password).

   Use the default credentials of administrator when logging on for the first time:

   - User ID: `admin`
   - Password: `txone`

3. Click **Log On**.
4. If this is the first time the StellarOne instance being logged on, follow below procedures to complete the initial settings.
   a. The **Login Information Setup** window appears and prompts you to change password. Confirm your password settings by:
      - specifying your new password in the **New Password** text field.
      - specifying the password again in the **Confirm Password** text field.
   b. Click **Confirm**. You will be automatically logged out. The **Log On** screen will appear again.
   c. Log on again using your new credentials. The **License Activation** window appears.
   d. Choose one of the ways to activate the license based on your license data and network environment:
      - **License Key**
        1. Click **License Key**.
        2. Specify your license key in the text field.

        Note

        - The license key that contains more than 30 characters can be used for online or offline license activation.
        - The license key that contains less than 30 characters can only be used for online license activation.

          The license key with less than 30 characters can be used to download the license file, which can be used for offline license activation.

      - **License File**:
        1. Click **License File**.

2. Select the license file (a `.txt` file) to import.

Note

- The license file can be used for license activation if the StellarOne has no Internet connection.
- If you don't have the license file on hand, see *Getting the License File on page 8-30*. A license file with less than 30 characters is required for downloading a license file.

e. Click **Apply**.

Note

A full license can not be converted to a trial license.

f. A success message appears. The license information also appears at the bottom of the **License Activation** window. Check if it matches the license data provided by your support provider.

g. Click **Continue**.

h. The **End User License Agreement and TXOne OT Intelligent Trust** window appears. Click the links to read the documents carefully and click the checkboxes to proceed to next step.

Note

It is recommended to enable **TXOne OT Intelligent Trust** to enhance security deployment. See *OT Intelligent Trust on page 8-39* for more details.

i. Specify the time settings such as the **Date and Time** as well as the **Time Zone**, and then click **Continue**.

j. The StellarOne console is ready for use now.

Note

After the initial settings are completed, the StellarOne allows various user accounts to log on remotely via a web browser.

5. (Optional) You can change your password by clicking the ID icon at the top right corner of the screen, and then selecting **Change Password**.
6. (Optional) For security reasons, you can manually log off by clicking the ID icon at the top right corner of the screen.
   a. A pop-up **Log Off** window appears. Click **Yes** to log out of StellarOne.

Note

You will be automatically logged off the console if no operations are performed within 30 minutes.

Chapter 3

Dashboard

This chapter provides an overview of the StellarOne web console's dashboard and introduces how to configure the dashboard settings.

Topics in this chapter include:

About the Dashboard Screen

The **Dashboard** provides an overview of monitored agent events and StellarOne console's system status. Click the **Dashboard** tab in the top navigation bar of the StellarOne web console. The **Dashboard** screen with two tabs of **Summary** and **System** appears.

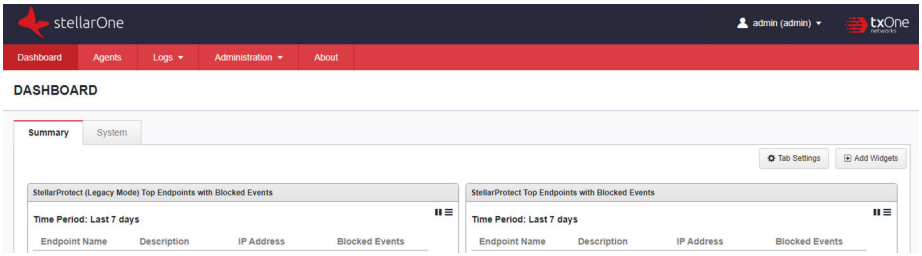


FIGURE 3-1. The Dashboard Screen

TABLE 3-1. About the Dashboard Screen

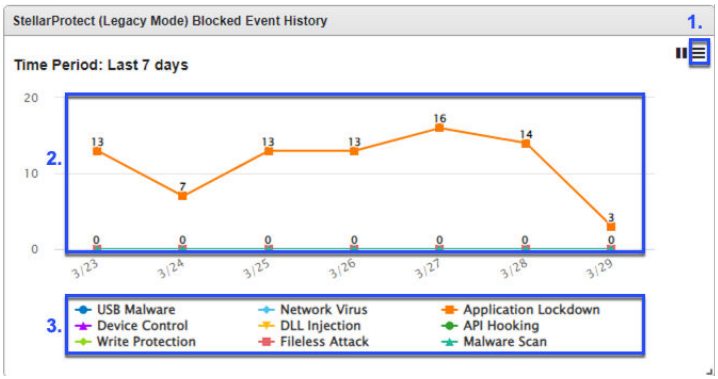
FUNCTION	DESCRIPTION
Summary	Under this tab, two widgets for monitoring StellarProtect and three for StellarProtect (Legacy Mode) agent events can be added: • **Blocked Event History** (Legacy Mode only) • **Top Endpoints with Blocked Events** • **Top Blocked Files** Please refer to *Widgets for Monitoring Agents on page 3-3* and *Add Widgets on page 3-7* for more details. **Note** By default the **Summary** tab page is set as the landing page of the **Dashboard**.

Function	Description
System	Under this tab, you can check StellarOne console's system status related to: • CPU Usage • Memory Usage • Disk Usage
Tab Settings	This button allows you to customize your own tab names. By simply clicking this button, specifying the desired tab name in the **Tab Name** field, and clicking **OK**, you can easily change the tab name.
Add Widgets	This button allows you to add desired widgets to the **Dashboard** screen. Please refer to *Add Widgets on page 3-7* for more details.

Widgets for Monitoring Agents

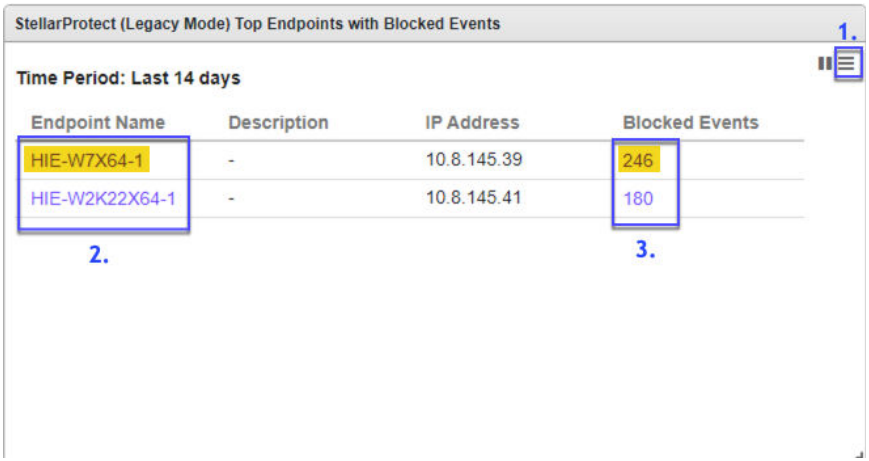
Two widgets for monitoring StellarProtect and three for StellarProtect (Legacy Mode) agent events can be added under the **Summary** tab of the **Dashboard** screen.

- **Blocked Event History** (Legacy Mode only): This widget displays a summary of blocked events for the specified time period. By default, the widget is displayed on the **Summary** tab page of the **Dashboard**.



1. Select from the **Time Period** drop-down menu at the top right corner of this widget to display the events occuring within a specified period. Refer to the *Tips* below this section for more details.
2. Click a value on the chart to be directed to the **Agents Events** logs for more details about the blocked event.
3. Click an entry on the legend to show or hide data for that event type.

- **Top Endpoints with Blocked Events**: This widget displays the endpoints with the most blocked events. By default, the widget is displayed on the **Summary** tab page of the **Dashboard**.



1. Select from the **Time Period** drop-down menu at the top right corner of this widget to display the events occuring within a specified period. Refer to the *Tips* below this section for more details.
2. Click an endpoint name to be directed to the **General Info** page for more details about the endpoint.

3. Click a value on the chart to be directed to the **Agents Events** logs for more details about the blocked event.

TABLE 3-2. Widget: Top Endpoints with Blocked Events

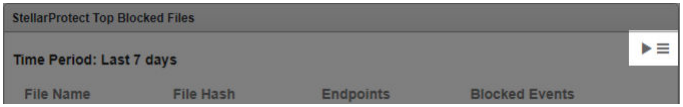
COLUMN	DESCRIPTION
Endpoint Name	Name of the endpoint
Description	Description assigned to the endpoint
IP Address	IP address of the endpoint
Blocked Events	Total number of events blocked on the endpoint

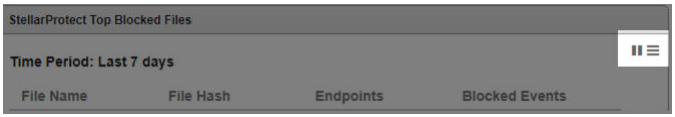
- **Top Blocked Files**: This widget displays a list of files that triggered the most blocked events.

TABLE 3-3. Widget: Top Blocked Files

COLUMN	DESCRIPTION
File Name	Name of the file that triggered the blocked events
File Hash	SHA1 hash of the file that triggered the blocked events
Endpoints	Total number of the endpoints that reported the blocked events triggered by the file
Blocked Events	Total number of the blocked events triggered by the file

Tip





- Click the play button to start auto refresh. Click the pause button to pause auto refresh.
- The drop-down button provides two functions:
  - **Widget Settings**:
    - **Widget Name**: allows you to edit the name for the widget.
    - **Time Period**: allows you to select a specific timeframe, which determines the number of the blocked events or files to display (The default value is **Last 7 days**).
    - **Auto Refresh Settings**: allows you to change the setting to manual refresh or to configure the auto refresh frequency (The default value is **Every 5 minutes**).
  - **Remove Widget**: allows you to remove the widgets from the **Dashboard** screen.
- To move a widget, click and hold on the title bar of the widget and drag it to various locations on the tab page.
- To resize a widget, mouse over the edge of the widget and a diagonal resize pointer appears. Drag it to resize the widget.

Add Widgets

The number of widgets you can add to a tab depends on the tab page layout. Once the number of widgets exceeds the maximum number the tab page can accomodate, you must remove a widget from the tab page or create a new tab for the widget.

Procedure

1. Go to **Dashboard** in the navigation at the top of the web console.
2. Go to the tab (**Summary** or **System** under the **Dashboard**) that you want to add the widget to.
3. Click the **Add Widgets** button at the right side, and then the screen for widget adding appears.
4. Click the checkbox(es) next to the widget names to add one or more widgets to the current tab.
5. Click the **Add** button to complete the task.

Chapter 4

Agents Management

This chapter introduces how to manage StellarProtect/StellarProtect (Legacy Mode) agents via StellarOne web console.

Topics in this chapter include:

About the Agents Screen

The StellarOne console facilitates agent management by allowing you to organize agents into various groups and build up multi-level hierarchy among the groups (parent groups above child groups), forming an agent/group tree structure. You can execute one-time commands to the selected groups and/or to specific agents.

Click the **Agents** tab in the top navigation bar of the StellarOne web console. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne and enables you to perform configuration tasks, which are one-time commands for triggering immediate actions.

Note

All agents are under the **All** group by default.

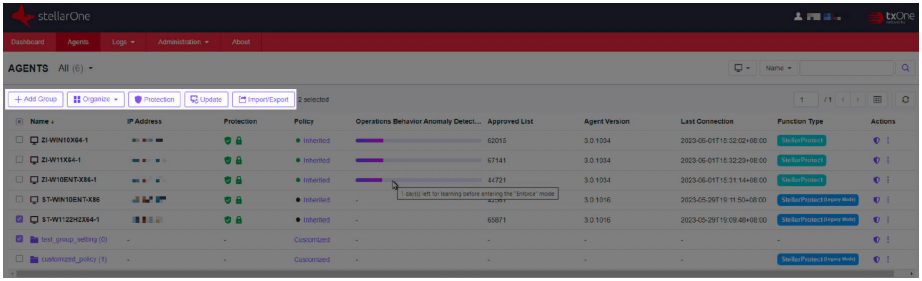


FIGURE 4-1. The Agents Screen - Toolbar

TABLE 4-1. Toolbar

TOOLS	DESCRIPTION
+Add Group	This tool allows you to create groups according to location, type, or purpose for better multi-agent management. See *Add Groups on page 4-6* for more details.
Organize	This tool allows you to edit description for agent(s), move agent(s) to another group, and remove agent(s)/group(s). See *Edit Description for Agents on page 4-7* and *Organize Agents/Groups on page 4-7* for more details.

Tools	Description
Protection	This tool allows you to configure Maintenance Mode, update Approved List when the Application Lockdown feature is enabled, and customize file scan settings. See *Configure Maintenance Mode on page 4-11*, *Update Approved List on page 4-15*, and *Scan Now on page 4-16* for more details.
Update	This tool allows you to update components and deploy patches for agents, as well as check connections with endpoints, apply group/agent policies immediately, and collect event logs (Legacy Mode only). See *Update Agent Components on page 4-20*, *Deploy Agent Patches on page 4-20*, *Check Connections on page 4-22*, *Apply Policies on page 4-22*, and *Collect Event Logs on page 4-23* for more details.
Import/Export	This tool allows you to export an agent config file (Legacy Mode only) or Approved List (Legacy Mode only), and then import it to apply the settings specified in the config file or Approved List to a batch of target agents/ groups. You can also export information about the selected or all agents. See *Agent Export/Import Settings on page 4-26* for more details.

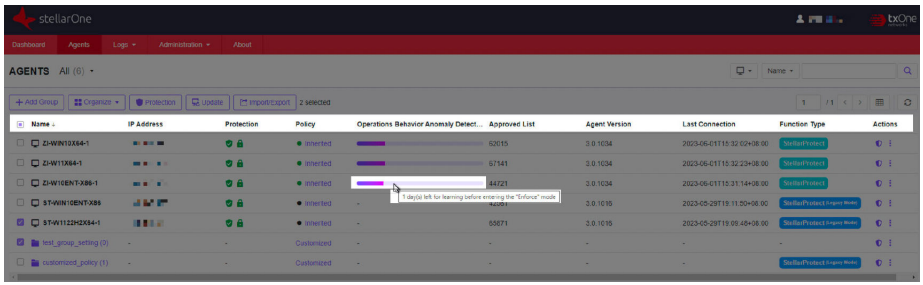


Figure 4-2. The Agents Screen - Column Headings

Table 4-2. Column Headings

Headings	Description
Name	• : Indicates an agent • : Indicates a group
IP Address	Displays the IP Address of the endpoint (one IP address corresponds to a single agent)

Headings	Description
Protection	• : Indicates the Application Lockdown is enabled • : Indicates the agent protection feature is enabled • : Indicates the agent is in maintenance mode • : Indicates a maintenance period has been scheduled but not started yet • : Indicates the agent protection feature is disabled and the endpoint may be vulnerable to security threats
Policy Inheritance	• **Inherited**: Indicates the policy settings for the agent/group are inherited from its parent group • **Customized**: Indicates the policy settings for the agent/group are customized by administrators • **Self-managed**: Indicates the agent/group is free from the StellarOne web console's policy management and its feature settings should be configured on the local console • : Indicates the agent's feature settings synchronize with the StellarOne console policy settings • : Indicates the agent's feature settings do not synchronize with the StellarOne console policy settings • : Indicates the agent/group is free from the StellarOne web console's policy management and its feature settings should be configured on the local console

Headings	Description
Operations Behavior Anomaly Detection	Displays the status of **Operations Behavior Anomaly Detection**: • **Learn**: Indicates the agent is collecting behavioral patterns from the monitored device to establish a baseline. • **Detect**: Indicates the agent is checking and should send alerts for any unexpected changes or security threats. • **Enforce**: Indicates the agent should take preventative actions on any anomalies detected. • **Disable**: Indicates the **Operations Behavior Anomaly Detection** is disabled. •  : If the agent has not established a baseline yet but is set to the **Detect** or **Enforce** mode, it will learn first and automatically switch to the specified mode. The progress bar here indicateds how many days left for learning before entering the specified mode. • - : Indicates the agent version or license edition does not support **Operations Behavior Anomaly Detection**.
Approved List	Displays the total number of applications added in the Approved List. If the endpoint is creating its Approved List, a progress bar instead will appear.
Agent Version	Displays the firmware version of the agent
Last Connection	Displays the last time the agent was connected with the StellarOne console
Function Type	Displays two function types of StellarProtect: • StellarProtect: for devices with Windows 7 or later versions • StellarProtect (Legacy Mode): for devices with legacy platforms such as Windows XP/2000
Actions	Under this heading, you can: • click , the **Policy** icon, for linking to the **General Info** policy page. • click the three dots **More actions** menu, for organizing agents and renaming/removing groups. See *Edit Description for Agents on page 4-7* and *Organize Agents/Groups on page 4-7* for more details.

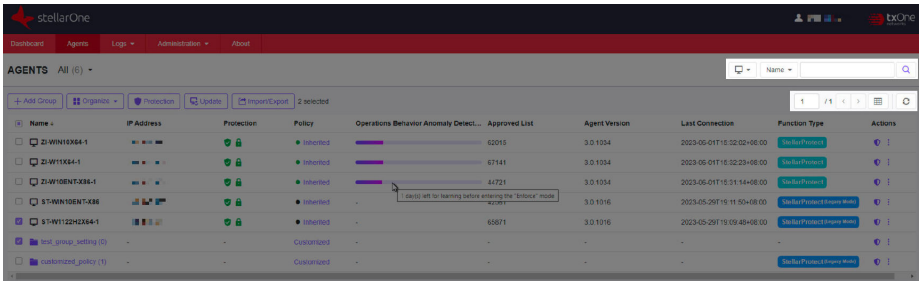


FIGURE 4-3. The Agents Screen - Other Tools

TABLE 4-3. Other Tools

TOOLS	DESCRIPTION
Filter	Name : This tool allows you to quickly find the agents/groups by sorting and searching. See *Filter Options for Agents/Groups on page 4-9* for more details.
Table Display Settings	1 / 1 : This tool allows you to customize the table display settings by: • going back and forth between the display pages • selecting how many agents/groups to be displayed per page and specifying only certain contents to be displayed in the **Customize Table Display** setting • manually refreshing the table for the latest outputs

Add Groups

Procedure

1. Go to **Agents** in the top navigation bar of the StellarOne web console.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.
3. Click the **+Add Group** button in the toolbar.

4. The **Add New Agent Group** window appears. Specify the group name in the text field.

Note

- The maximum length limitation of a group name is 50 characters.
- The maximum number of group levels is 15 levels.

5. Click **Confirm** to add the group.

Edit Description for Agents

To edit description for agents, which will appear on the main screen of the local agent, follow below procedures.

Procedure

1. Go to **Agents** in the top navigation bar of the StellarOne web console.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.
3. There are two ways to edit descriptions for agent(s):
   - To edit description for multiple agents at the same time, click the checkboxes next to the target agents. Click the **Organize** tool on the toolbar.
   - To edit description for a single agent, find the target agent and click its three dots **More actions** menu under the **Actions** header.
4. A drop-down menu appears. Click **Edit Description** and then a window appears.
5. Specify the description for the agent(s) in the text field.
6. Click **Confirm** to complete this task.

Organize Agents/Groups

You can organizing agents/groups by:

- renaming groups
- removing groups
- removing agents from groups
- moving agents to another group

Procedure

1. Go to **Agents** in the top navigation bar of the StellarOne web console.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.
3. To rename a group, click the three dots **More actions** menu of the target group under the **Actions** header. A drop-down menu appears. Select **Rename** and then a pop-up window appears. Delete the old group name and replace it with a new one. Click **Confirm** to complete this task.

   Note

   Groups at the same level can not have the same group name.

4. There are two ways to remove groups or agents:

   - To remove multiple agents or groups at the same time, click the checkboxes next to the target agents or groups. Click the **Organize** tool on the toolbar and select **Remove**. Click **Confirm** to remove the agents/groups.

     Important

     - To remove agent(s): The agent(s) will be unregistered from the server.
     - To remove group(s): The group(s) and the configuration of the group(s) will be removed.

   - To remove a single agent or group, click the three dots **More actions** menu of the target agent/group under the **Actions** header. A drop-down menu appears. Select **Remove** to remove the agent/group.

Important

To remove groups with child groups/agents, please remove the child groups/agents from the target groups first.

5. There are two ways to move agent(s) to another group:

   - To move multiple agents to another group at the same time, click the checkboxes next to the target agents. Click the **Organize** tool on the toolbar.
   - To move a single agent to another group, click the three dots **More actions** menu of the target agent under the **Actions** header.

   A drop-down menu appears. Select **Move** and then a pop-up window appears. Select the group and click **Confirm** to complete this task.

Search for Agents/Groups

Procedure

1. Go to **Agents** in the top navigation bar of the StellarOne web console.
2. At the top-right corner of the screen, search for specific endpoints by selecting criteria from the drop-down list and specify additional search criteria as required.

Filter Options for Agents/Groups

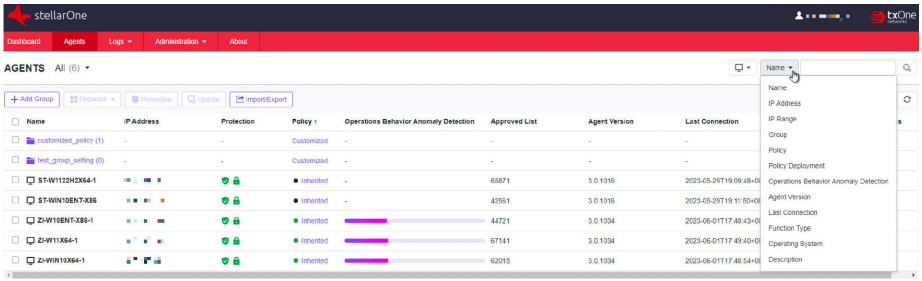


FIGURE 4-4. Filter Options for Agents/Groups

TABLE 4-4. Filter Options for Agents/Groups

OPTIONS	DESCRIPTIONS
	This icon provides three filter options: • **Active Agents**: the agents with license seats • **Inactive Agents**: the agents without license seats • **Ungrouped Agents**: the agents that are not grouped.
Name	The name of the agent. Type the full or partial endpoint host name to locate the specific agent.
IP Address	Type the IPv4 address.
IP Range	Type the IPv4 address range.
Group	The name of the group. Please ensure that you select the available group.
Policy	Three options -- **Customized**, **Inherited**, and **Self-managed**, are available for selection.
Policy Deployment	The status of policy deployment from StellarOne to Agents. Select **Completed** or **In Progress**.
Operations Behavior Anomaly Detection	Find the target agents by the modes of the Operations Behavior Anomaly Detection. Four modes are available for selection: **Learn**, **Detect**, **Enforce**, or **Disabled**.
Agent Version	Type the build version of the target agents.
Last Connection	The last time the agents were connected with StellarOne. Select the default time period or select **Custom range** to specify a time period. Default time period available for selection includes: • Last 1 hour • Last 24 hours • Last 7 days • Last 30 days
Function Type	Select **StellarProtect** or **StellarProtect (Legacy Mode)**.

Options	Descriptions
Operating System	Select an operating system of the target endpoints.
Description	Type the full or partial description to query specific endpoints.

Protection

The **Protection** tool sends one-time commands to endpoints for triggering immediate actions, allowing you to configure Maintenance Mode, update Approved List when the Application Lockdown feature is enabled, and customize file scan settings.

Topics in this chapter include:

- *Configure Maintenance Mode on page 4-11*
- *Update Approved List on page 4-15*
- *Scan Now on page 4-16*

Configure Maintenance Mode

To perform approved file updates or system maintenance on endpoints, you can configure Maintenance Mode for a specified period of time. During the Maintenance Mode, the agents allows all file executions and adds all files that are created, executed, or modified to the Approved List. Besides, the agents can ensure the execution of these applications are under the protected conditions by performing malware scanning before adding new or changed files to the Approved List. You can also define the action to take after suspicious files are detected.

Important

Before using Maintenance Mode, apply the required updates on the following supported platforms for StellarProtect (Legacy Mode) agents:

- For Windows 2000 Service Pack 4, apply the update KB891861 from the Microsoft Update Catalog website.
- For Windows XP SP1, upgrade to Windows XP SP2.

Note

- If you change the policy settings of Application Lockdown, Multi-Method Threat Prevention (StellarProtect), OT Application Safeguard (StellarProtect), or Threat Prevention (StellarProtect (Legacy Mode)) during maintenance period, the policy settings will not be implemented until the maintenance period is ended.
- During the maintenance period, you cannot perform agent patch updates on endpoints. In addition, the StellarProtect (Legacy Mode) agent does not support Windows updates that require restarting an endpoint during the maintenance period.
- To run an installer that deploys files to a network folder during the maintenance period, StellarProtect (Legacy Mode) must have access permission to the network.

Procedure

1. Go to **Agents** > **All**.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.
3. Select one or more endpoints (agents or groups) by clicking the checkboxes next to them.
4. Click the **Protection** button from the Tool Bar at the top of the **Agents** screen.

5. A pop-up window appears. Click the **Configure Maintenace Mode** option.
6. Click **Confirm**.
7. The configuration window appears. Please read the notice carefully before you check the **Disable** or **Enable** radio button.
   - Click **Disable** > **OK** to end Maintenance Mode. This will cancel the scheduled maintenance period on endpoints.
     a. A warning message appears. Please read carefully before proceeding to next step.

     Important

     If the Maintenance Mode is ended, the endpoint will start blocking the execution of files that are not recognized by the Application Lockdown or OT Application Safeguard.

     b. Click **OK** to end Maintenance Mode. A pop-up window appears showing the deployment status of stopping Maintenance Mode on endpoints.
   - Click **Enable** to start the Maintenance Mode settings. Please go to *Step 8* for next procedure.

     Important

     To reduce risk of infection, run only applications from trusted sources on endpoints during the maintenance period.
8. The schedule configuration window appears. Do one of the following for scheduling Maintenance Mode.

Note

- Agents can start one scheduled maintenance period at a time. If you configure a new maintenance period, the system overwrites the existing maintenance schedule that has not started yet.
- When the agent is about to leave Maintenance Mode, restarting the endpoint prevents StellarProtect (Legacy Mode) from adding files in the queue to the Approved List.

- Click the **Schedule** radio button, and then click the edit icon to select the start date and specify the start time for Maintenance Mode. After that, specify the duration of the maintenance period in **Maintenance Mode will be ended after**.
- Click the **Start now** radio button, and then specify the duration of the maintenance period in **Maintenance Mode will be ended after**.

9. A **Scan** toggle switch is added at the bottom and is set **enabled** by default.

Note

- If you disable scan feature in the policy settings, TXOne Networks suggests you enable the scan function here to ensure all the new or changed files go through the malware scanning before they're added to the Approved List. After the maintenance, the original policy settings (in which the scan feature is disabled) will still apply.
- The scan toggle should not appear on the StellarOne console with StellarOEM license edition. See *License Editions on page 8-33* for more details.

10. Select one of the actions to take if suspicious files are detected during scanning:
    - **Quarantine detected files**
    - **Add detected files to Approved List**

11. Click **OK** to deploy the settings to the selected agents or groups.
12. The **Command Deployment** window appears showing the deployment status. Click the **Close** button to close the window.

Note

On the **Agents** screen, in the **Protection** column of the selected agents/groups:

- The will appear indicating a maintenance period has been scheduled but not started yet if you select **Schedule** in *Step 8* and deploy related settings.
- The icon will appear indicating the agents/groups are currently in maintenance mode if you select **Start now** in *Step 8* and deploy related settings.

Update Approved List

This function allows you to update the Approved List on selected agents/groups by several simple clicks. Updating the Approved List performs an inventory scan on selected endpoints and adds any new applications found on the endpoints to the global Approved List. The Approved List must be periodically updated so the newly-added applications can run on the endpoints when the Application Lockdown feature is turned on.

After setting up the Approved List, you can also add new programs by enabling Maintenance Mode, and the new or modified files will be added to the Approved List.

Procedure

1. Go to **Agents** > **All**.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.
3. Select one or more endpoints (agents or groups) by clicking the checkboxes next to them.

4. Click the **Protection** button from the Tool Bar at the top of the **Agents** screen.
5. A pop-up window appears. Click the **Update Approved List** option.
6. Click **Confirm**.
7. A pop-up **Update Approved List** window appears. Click **OK** to start the Approved List update process.

WARNING!

Do not restart or turn off the endpoint(s) during the update. The update process may take more than 30 minutes to complete.

8. The **Update Approved List** window appears showing the update status. Click the **Close** button to close the window.

Scan Now

You can manually initiate **Scan Now** on selected endpoints and deploy the scan settings on one or several target endpoints.

Procedure

1. Go to **Agents** > **All**.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.
3. Select one or more endpoints (agents or groups) by clicking the checkboxes next to them.
4. Click the **Protection** button from the Tool Bar at the top of the **Agents** screen.
5. A pop-up window appears. Click the **Scan Now** option.
6. Click **Confirm**.
7. The configuration window appears.

8. The configuration window consists of four sections: **Files to Scan**, **CPU Usage**, **Scan Action**, and **Scan Exclusions**.

Note

The StellarProtect (Legacy Mode) agents will automatically attempt to download the latest components before starting a scan. A **Component Update** toggle is available for you to determine whether the endpoints should continue with the scan if the component update is unsuccessful.

a. In the **Files to Scan** section, click **All local folders** to scan all files in detail; click **Default folders (Quick Scan)** for a general scan; or click **Specific folders** to specify the paths to the folders for scan.

Tip

Under the **Specific folders** option, click the "+" or "-" icon to add or delete paths to the specific folders.

- (Optional and StellarProtect (Legacy Mode) only) Check **Scan removable drives** to allow scanning files in removable drives
- (Optional) Check **Scan compressed files** and select the **Maximum layers** between 1 and 20 for the compressed files.
- (Optional) To skip files over a certain size, check **Skip files larger than** and specify the file size between 1 and 2048 MB. Files exceeding the specified file size will not be scanned.
- (Optional and StellarProtect only) Check **Aggressive scan (include all OT applications and CA files)** to allow scanning files in existing trusted list.

b. The **CPU Usage** settings allow you to select the appropriate mode of CPU usage to balance between the scan and the available CPU resources depedning on situations. There are two options available:

- Click **Normal** to reduce the impact on the service performance, which allows you to perform other tasks while scanning but the scan may take longer to complete.
- Click **High** to reduce scan time, which requires higher CPU usage and may affect the system performance.

c. In the **Scan Action** section, you can pre-define the action to take after threats are detected. Select **Quarantine** to place the suspicious or infected files detected in an isolated folder for further checking. Select **No action** to produce only a readout of results with no actions taken on the suspicious files.

Note

The StellarProtect (Legacy Mode) agents provide more choices such as:

- **Use ActiveAction**: The pre-configured scan actions, which are best to use if you are not familiar with scan actions or if you are not sure which scan action is suitable.
- **Clean, or delete if the clean action is unsuccessful**: To delete the target file if it cannot be recovered.
- **Clean, or quarantine if the clean action is unsuccessful**: To quarantine the target file if it cannot be recovered.
- **Clean, or ignore if the clean action is unsuccessful**: To ignore the target file if it cannot be recovered.

d. (Optional) The **Scan Exclusions** section allows you to exclude certain folders, files, or file extensions from being scanned.

- **Folders**: specify a path to the folders that do not require scanning.
- **Files**: specify a path to the files that do not require scanning.
- **File Extensions**: specify the file extension of certain files that do not require scanning.

Note

- StellarProtect supports only local paths for **Scan Exclusions**. Remote paths such as an URL or `\\[Hostname]` are not supported.
- It is not required to add "." or "*." in front of the file extension.

Tip

Click the "+" or "-" icon to add or delete paths to the specific folders/files or file extensions for specific file types .

9. Click **OK** to deploy the settings to the selected endpoints.
10. The **Command Deployment** window appears showing the deployment status. Click the **Close** button to close the window.

Update

This section introduces how to implement immediate update for the agents via StellarOne web console.

Topics in this section include:

Note

Only StellarProtect (Legacy Mode) supports the Collect Event Logs feature.

Update Agent Components

You can update agent components on selected endpoints via StellarOne web console. TXOne Networks recommends updating agent components regularly to protect the endpoints against the latest security threats.

Procedure

1. Click the **Agents** tab in the top navigation bar of the StellarOne web console.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.
3. Select one or more endpoints (agents or groups) by clicking the checkboxes next to them.
4. Click the **Update** button from the Tool Bar at the top of the **Agents** screen.
5. A pop-up window appears. Click **Update Agent Components** option.
6. Click **Confirm**.
7. The **Update Agent Components** window appears. Click **OK** to start the update.

   Important

   Do not restart or turn off the endpoints during the update. The update process may take some time to complete.

8. The **Command Deployment** window appears showing the update status. Click the **Close** button to close the window.

Deploy Agent Patches

You can deploy patch files for agents on selected endpoints via StellarOne web console. TXOne Networks recommends updating agent patches regularly to protect the endpoints against the latest security threats.

Procedure

1. Go to **Agents** > **All**.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.
3. Select one or more endpoints (agents or groups) by clicking the checkboxes next to them.
4. Click the **Update** button from the Tool Bar at the top of the **Agents** screen.
5. A pop-up window appears. Click the **Deploy Agent Patches** option.
6. Click **Confirm**.
7. A pop-up **Deploy Agent Patches** window with the patch list appears. Select the version of the patch for deployment and click the checkbox next to it.

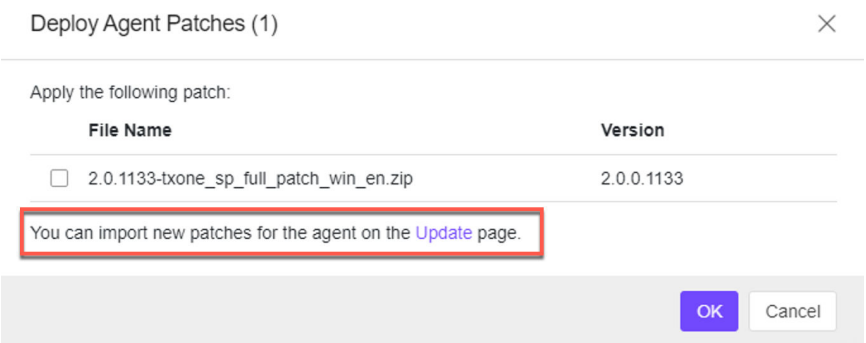


FIGURE 4-5. Select the Patch Version

Note

By clicking the **Update** link, you will be directed to the *Downloads/ Updates on page 8-20* page for importing new patches for agents.

8. Click **OK** to start the patch deployment process for the agents. Click the **Close** button to close the window.

Check Connections

You can check the connection status of the selected agents.

Procedure

1. Go to **Agents** > **All**.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.
3. Select one or more endpoints (agents or groups) by clicking the checkboxes next to them.
4. Click the **Update** button from the Tool Bar at the top of the **Agents** screen.
5. A pop-up window appears. Click the **Check Connections** option.
6. Click **Confirm**.
7. A pop-up **Command Deployment** window with the endpoint list appears. The **Status** column shows if the agents are succesfully connected to the StellarOne server.

   Note

   If the status shows **Unsuccessful**, check the network connectivity of the disconnected agents.

8. Click **Close** to close the window.

Apply Policies

You can manually apply policy updates to the selected endpoints.

Procedure

1. Go to **Agents** > **All**.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.
3. Select one or more endpoints (agents or groups) by clicking the checkboxes next to them.
4. Click the **Update** button from the Tool Bar at the top of the **Agents** screen.
5. A pop-up window appears. Click the **Apply Policies** option.
6. Click **Confirm**.
7. A pop-up **Command Deployment** window with the endpoint list appears. The **Status** column shows if the StellarOne policies are succesfully applied to the target agents.

   Note

   - If the status shows **Unsuccessful**, check the network connectivity of the disconnected agents.
   - By default, agents automatically synchronize with StellarOne policies every 20 minutes. If you want to adjust the policy sync interval, see *Set Policy Refresh Interval on page 5-6* for specifying how often the StellarOne policy is applied to selected agent/group.

8. Click **Close** to close the window.

Collect Event Logs

Logs contain information about agent activity. **Collect Event Logs** updates the StellarOne database with the latest information from the selected agents.

Note

Only StellarProtect (Legacy Mode) supports this function.

Procedure

1. Go to **Agents** > **All**.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.
3. Select the target agents by clicking the checkboxes next to them.
4. Click the **Update** button from the Tool Bar at the top of the **Agents** screen.
5. A pop-up window appears. Click the **Collect Event Logs** option.
6. Click **Confirm**.
7. A pop-up **Command Deployment** window with the endpoint list appears. The **Status** column shows if the event logs are successfully collected.
8. Click **Close** to close the window.

Note

StellarOne will update the date and time displayed in the **Last Connection** column on the **Agents** screen after each StellarProtect (Legacy Mode) agent successfully sends logs and status to StellarOne.

9. Go to **Logs** > **Agent Events** for viewing the collected event logs of the selected agents. Refer to *Agent Events on page 7-2* for more detailed instructions if needed.

Note

By default, the selected agents will only send back the **Warning** and **Critical** level logs.

10. (Optional) Choose one of the ways to add the **Information** level logs in the collected event logs.

Note

The log volume may surge if the **Information** level logs are included in the collected event logs.

- On the StellarOne console, export the agent's configuration file and change the value of `InformationLog Enable` to `yes`. Import the modified configuration file to the selected agent. Refer to *Export Agent Configurations on page 4-26* and *Import Agent Configurations on page 4-28* for more detailed instructions.

```
<Log>
    <EventLog Enable="yes">
        <Level>
            <WarningLog Enable="yes"/>
            <InformationLog Enable="yes"/>
        </Level>
```

FIGURE 4-6. Snippet of the Configuration File

- On the target StellarProtect (Legacy Mode) agent, open the `StellarSetup.ini` file in the installer package and change the value of `Level_InformationLog` to `1`. Be sure to save the changed file and run the installation again.

```
[legacy_EventLog]
Enable                          = 1
Level_WarningLog                = 1
Level_InformationLog            = 1
```

FIGURE 4-7. Snippet of the StellarSetup.ini File

Note

Only after you change the event log setting for the target agents and apply the **Collect Event Logs** action to them, will the **Information** level logs be sent to StellarOne.

Agent Export/Import Settings

This section introduces how to apply the import/export actions to the agents via StellarOne web console.

Topics in this section include:

Note

Only StellarProtect (Legacy Mode) supports Export/Import Agent Settings, which are only available for individual agents. When you select any group from the list, the functions are unavailable.

Export Agent Settings

You can remotely obtain the StellarProtect (Legacy Mode) agent configuration settings and Approved List by exporting and downloading them from the StellarOne console.

Note

Only StellarProtect (Legacy Mode) supports the function.

Export Agent Configurations

Procedure

1. Go to **Agents** > **All**.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.

3. Select the target agent by clicking the checkbox next to it.
4. Click the **Import/Export** button from the Tool Bar at the top of the **Agents** screen.
5. Click the **Export Agent Configurations** option.
6. Click **Confirm**.
7. A pop-up **Command Deployment** window appears. The **Status** shows if the agent configuration is exported successfully.
8. Click the **Download** link to download the target agent's configuration file.

Export Approved List

Procedure

1. Go to **Agents** > **All**.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.
3. Select the target agent by clicking the checkbox next to it.
4. Click the **Import/Export** button from the Tool Bar at the top of the **Agents** screen.
5. Click the **Export Approved List** option.
6. Click **Confirm**.
7. A pop-up **Command Deployment** window appears. The **Status** shows if the agent's Approved List is exported successfully.
8. Click the **Download** link to download the target agent's Approved List.

Import Agent Settings

You can remotely apply new agent settings to the selected agents from the StellarOne web console. This feature allows you to:

- Remotely overwrite the agent configuration
- Remotely overwrite the Approved List

Remember to prepare a customized agent configuration or Approved List file first before you start the import:

1. Export and download an agent configuration file or the Approved List.
2. Customize the downloaded file.

Note

To ensure a successful import, verify that the file to import meets the following requirements:

- The Approved List file must be in the CSV format with UTF-8 encoding and file size ideally less than **120 MB**.
- The agent configuration file must be in the XML format with the file size ideally less than **1 MB**.

Import Agent Configurations

Procedure

1. Go to **Agents** > **All**.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.
3. Select the target agents by clicking the checkboxes next to them.
4. Click the **Import/Export** button from the Tool Bar at the top of the **Agents** screen.
5. Click the **Import Agent Configurations** option.
6. Click **Confirm**.
7. A pop-up **Import Agent Configurations** window appears. Click **Select File**.

8. Select the file to import and click **OK**.
9. A pop-up **Command Deployment** window appears. The **Status** shows if the agent configurations are imported to the target endpoints successfully.
10. Click **Close** to close the window.

Import Approved List

Procedure

1. Go to **Agents** > **All**.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.
3. Select the target agents by clicking the checkboxes next to them.
4. Click the **Import/Export** button from the Tool Bar at the top of the **Agents** screen.
5. Click the **Import Approved List** option.
6. Click **Confirm**.
7. A pop-up **Import Approved List** window appears. Click **Select File**.
8. Select the file to import and click **OK**.

Note

The switch toggle, **Replace the trusted hash value of existing applications with that in the imported Approved List.**, is used for overwriting the existing trusted hash values in the original Approved List. By default, the toggle is switched off.

9. A pop-up **Command Deployment** window appears. The **Status** shows if the new Approved List is imported to the target endpoints successfully.

10. Click **Close** to close the window.

Export Selected Agents Info

This function allows you to export selected agents' information about endpoint description, IP address, license status, policy settings, etc.

Procedure

1. Go to **Agents** > **All**.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.
3. Select one or more endpoints (agents or groups) by clicking the checkboxes next to them.
4. Click the **Import/Export** button from the Tool Bar at the top of the **Agents** screen.
5. A pop-up window appears. Click the **Export Selected Agents Info** option.
6. Click **Confirm**.
7. A `.csv` file is downloaded.

Export all Agents Info

This function allows you to export all agents' information about endpoint description, IP address, license status, policy settings, etc.

Procedure

1. Go to **Agents** > **All**.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.
3. Click the **Import/Export** button from the Tool Bar at the top of the **Agents** screen.

4. A pop-up window appears. Click the **Export all Agents Info** option.
5. Click **Confirm**.
6. A `.csv` file is downloaded.

Chapter 5

Agent View and Policy Settings

The agent view provides three tab pages at the agent level, including:

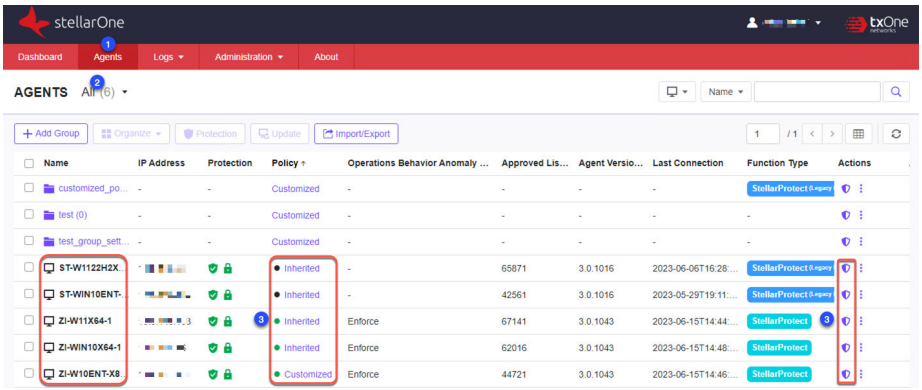
- **General Info**: Displays the system information, scan components, applied policy settings (Legacy Mode only), and installed path/hotfix (Legacy Mode only).
- **Policy**: Provides the configuration page for policy settings. See *Agent Policy Settings on page 5-7* for more details.
- **Situational Awareness**: Displays the agent baseline established during the learning period set from the **Operations Behavior Anomaly Detection**. See *Situational Awareness on page 5-90* for more details.

Topics in this chapter include:

Go to the Agent View

Go to a specific agent view to check the agent details or configure the agent policy settings.

Follow the instructions below to go to the agent view.



Procedure

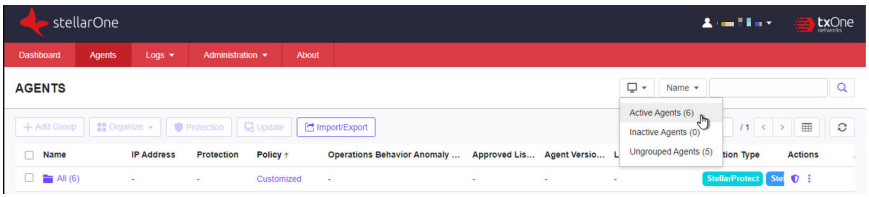
1. Click the **Agents** tab in the top navigation bar of the StellarOne web console.
2. Click the **All** group, and then a screen displays the second level of groups/agents managed by StellarOne.
3. Navigate to the target agent. Choose one of the ways to go to the agent view.
   - Click the link (**Inherited**, **Customized**, or **Self-managed**) in the **Policy** column. The agent view with the **Policy** tab page appears.
   - Click the Policy icon in the **Actions** column, and then click the **Policy** tab. The agent view with the **General Info** tab page appears.
4. See *Options Available in the Agent View on page 5-5* for more information.

Finding the Target Agent

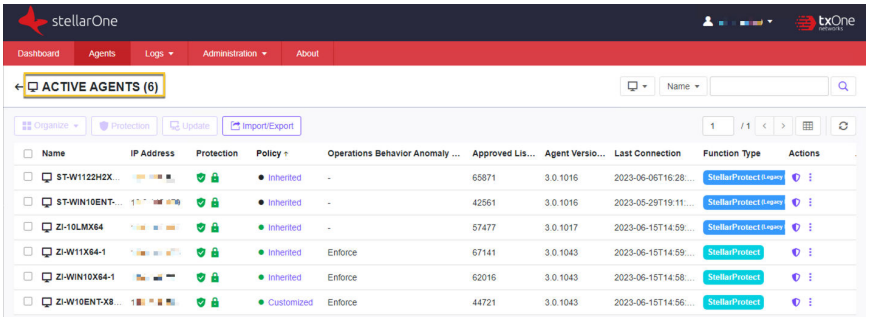
You can use the filter tool provided on the **Agents** screen to list all the **Active Agents**, and then do an advanced search to quickly find the target agent for checking its details or policy configuration.

Procedure

1. On the **Agents** screen, click the icon and select the **Active Agents**.



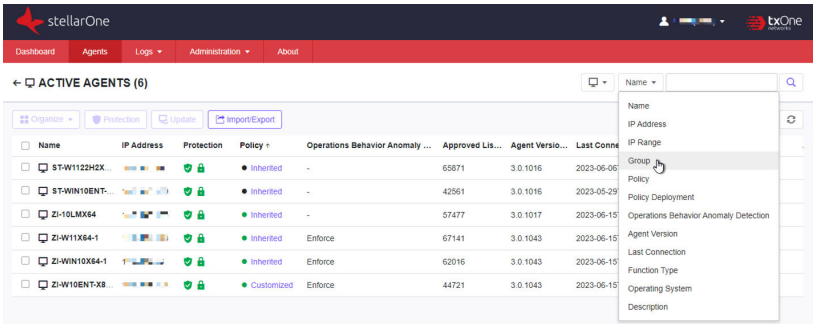
2. The screen displays all the active agents.



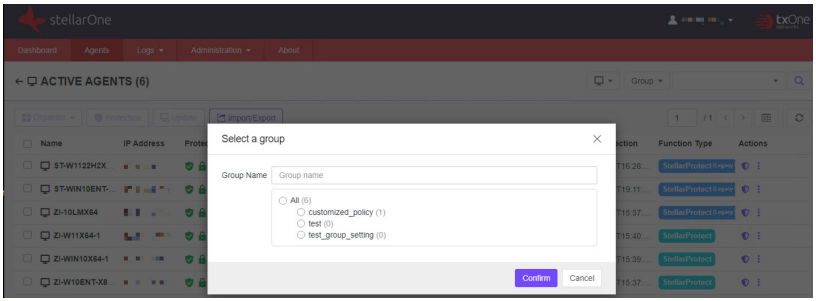
3. Click the filter dialog box for an advanced search. You'll need to type directly in the search box or choose from the filter menu depending on the selected filter option.

4. See below as an example of how to find a specific agent in the specified group.

   a. Select **Group** from the filter menu.



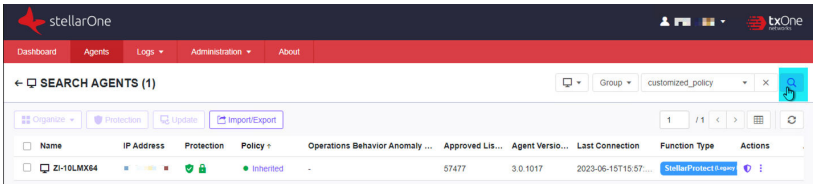
b. Click the filter menu and a **Select a group** window appears.



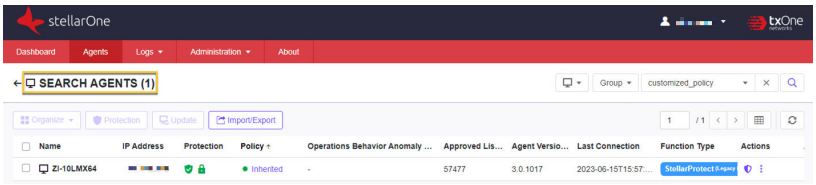
c. Click the radio button next to the target group or type the group name in the **Group Name** text field.

d. Click **Confirm**.

e. Click the search icon.



f. The screen displays the target agent. Click the link in the **Policy** column or icon in the **Actions** column for checking the agent details or policy configuration.



Options Available in the Agent View

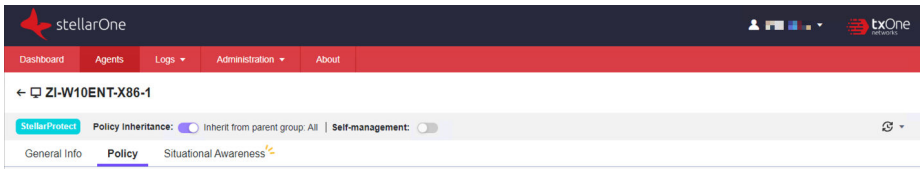


FIGURE 5-1. Options Available in the Agent View

OPTIONS	DESCRIPTION
Policy Inheritance	The toggle button allows you to enable or disable the policy inheritance from the parent group. If the toggle is on, policy settings for the agent are inherited from the parent group; otherwise, policy settings for the agent are customized by the StellarOne administrators. **Note** When the toggle is on or off, the **Inherited** or **Customized** status will be displayed in the **Policy** column on the **Agents** screen.

Options	Description
Self-management	The toggle button allows you to enable or disable the agent's self-management. When the toggle is on, the agent will be set free from StellarOne console's policy management and the on-site operators can configure the agent's policy settings on their own.
General Info/**Policy**/ **Situational Awareness**	The tabs allow you to switch among the pages related to the general information, policy settings, and baseline at the agent level.
 Set policy refresh interval	This button allows you to specify how often the StellarOne policy and the Situational Awareness data sync are applied to the agent/group. See *Set Policy Refresh Interval on page 5-6* for more details.

Set Policy Refresh Interval

You can specify how often the StellarOne policy and the Situational Awareness data sync are applied to the specific agent.

Procedure

1. See *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group setting.
2. Find the refresh icon in the upper-right corner of the screen.
3. Click the refresh icon and the **Set Policy Refresh Interval** window appears
4. Click the **Refresh Interval** menu and select among the given options:
   - **5 Minutes**
   - **10 Minutes**
   - **20 Minutes** (default setting)
   - **60 Minutes**

Important

Frequent refresh might interfere with your work and increase network traffic. See the following table as the recommended policy refresh interval regarding the number of agents managed:

Policy Refresh Interval	No. of Agents Managed
5 minutes	5000
10 minutes	10000
20 minutes	20000
60 minuties	60000

5. Click **Save** to complete the setting.

Agent Policy Settings

This section introduces the configuration page for policy settings at the agent level.

Topics in this section include:

- *Policy Settings for StellarProtect on page 5-7*
- *Policy Settings for StellarProtect (Legacy Mode) on page 5-48*
- *Other Policy Settings for StellarProtect/StellarProtect (Legacy Mode) on page 5-81*

Policy Settings for StellarProtect

Policy settings for StellarProtect agent include:

- *Application Lockdown on page 5-8*
- *Multi-Method Threat Prevention on page 5-15*
- *Operations Behavior Anomaly Detection for StellarProtect on page 5-21*

- *OT Application Safeguard on page 5-43*
- *DLL Injection Prevention on page 5-46*
- *Trusted Certificates on page 5-47*

See *Other Policy Settings for StellarProtect/StellarProtect (Legacy Mode) on page 5-81* for how to configure Agent Component Update Schedule, Device Control, User-Defined Suspicious Objects, Agent Password, and Agent Patch deployment for StellarProtect agent.

Application Lockdown

When Application Lockdown is turned on, the agent will only be able to access applications that are in the Approved List.

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

   Note

   For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Go to the **Application Lockdown** pane.
4. Three modes are avaible for selection:
   - Detect: When an application not in the Approved List launches, it is allowed and users will receive a notification.
   - Enforce: When an application not in the Approved List launches, it is blocked and users will receive a notification.
   - Disable: Application Lockdown is turned off.

Note

- For how to configure exclusion settings for the Approved List, see *Exception Paths Settings on page 5-9*.
- For how to configure trusted hash values settings for the Approved List, see *Trusted Hash Values Settings on page 5-11*.

5. If you enable the "Detect" mode or "Enforce" mode, the sub-features listed below will appear. By default, the sub-features are enabled. Click the toggles to disable them if needed.
   - **DLL/Driver Lockdown**: Prevents unapproved DLLs or drivers from being loaded into the memory of protected endpoints.
   - **Script Lockdown**: Prevents unapproved script files from being run on protected endpoints.
   - **Intelligent Runtime Learning**: Allows runtime executable files that are generated by applications in the Approved List.

Exception Paths Settings

When **Application Lockdown** is enabled, the Agent will only be able to access applications that are in the Approved List. However, the **Exception Paths** allows you to configure lockdown exclusion settings for the Approved List.

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Find and click the **Exception Paths** at the bottom of the **Application Lockdown** pane.

   - For adding exception paths:

     a. Click the **+Add** button, and then a pop-up window appears.

     b. Select among **Folder**, **File**, or **Regular Expression** and input the required information in the corresponding text field.

     Note

     The **Exception Paths** function supports only the real path and hardlink path.

     c. Click **Add** to complete adding the exception paths for the Approved List.

   - For editing existing exception paths:

     a. Find the exception path to be edited and click the corresponding Edit icon under the **Actions** header.

     b. A pop-up window appears. Select among **Folder**, **File**, or **Regular Expression** and edit in the corresponding text field.

     c. Click **Save** to complete editing the exception paths for the Approved List.

   - For deleting multiple existing exception paths:

     a. Click the checkboxes next to the existing exception paths.

     b. Click the **Delete** button next to the **+Add** button.

     c. A warning message window appears. Click **Confirm** to delete the selected items.

   - For deleting single existing exception path:

     a. Find the exception path to be deleted and click the corresponding Delete icon in the **Actions** column.

b. A warning message window appears. Click **Confirm** to delete the selected item.

Trusted Hash Values Settings

When **Application Lockdown** is enabled, the Agent will only be able to access applications that are in the Approved List. However, the **Trusted Hash Values** allows you to configure trusted hash values for the Approved List.

Calculate Hash Values

Use **File Hash Generator** to calculate hash values before adding trusted hash values.

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

   Note

   For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Find and click the **Trusted Hash Values** at the bottom of the **Application Lockdown** pane.
4. The **Trusted Hash Values** windows appears. Find and click **File Hash Generator** to download the tool.
5. Execute `WKFileHashGen.exe` from the downloaded folder. The **File Hash Generator** screen will appear.
6. Use any of the following methods to select files and calculate hash values:

   - Drag and drop folders or files to the **File Hash Generator** screen.

- Click the drop-down button and click **Add Files** to select the files to add.
- Click the drop-down button and click **Add Folder** to add all the files in the selected folder.

Tip

Only executable, script, and installer files are supported. Mouse over the **Supported file types** for more details.

Note

Hash values will appear in the SHA-1 and SHA-256 columns.

7. For a single file, right-click the item and select **Copy SHA-1** or **Copy SHA-256**. For multiple files, click **Export All** to generate a list of hash values

Note

- To ensure that all necessary files are calculated for hash values, it is advisable to add the root folder of the target application(s) to the **File Hash Generator** for calculation.
- By clicking the **Add Folder** button, only the installer files, script files, and files in the PE (Portable Executable) format will be calculated.
- For the single hash value, see *Add Trusted Hash Values on page 5-13* for how to add the copied hash value to the trusted hash value list.
- For multiple hash values, see *Import Trusted Hash Values on page 5-13* for how to import the file containing the hash values to the trusted hash value list.

8. Click **Exit** to close the tool.

Add Trusted Hash Values

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Find and click the **Trusted Hash Values** at the bottom of the **Application Lockdown** pane.
4. Click the **Add** button and fill in the hash values and notes.

Import Trusted Hash Values

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Find and click the **Trusted Hash Values** at the bottom of the **Application Lockdown** pane.
4. Click the **Import** button to import the `.txt` file containing a batch of hash values.

Note

See *Calculate Hash Values on page 5-75* for generating the file containing the list of multiple hash values

Edit Trusted Hash Values

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Find and click the **Trusted Hash Values** at the bottom of the **Application Lockdown** pane.
4. Find the trusted hash value to be edited and click the corresponding Edit icon in the **Actions** column.
5. The **Edit Trusted Hash Value** dialog window appears.
6. After modification, click the **Save** button to complete the settings.

Remove Trusted Hash Values

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Find and click the **Trusted Hash Values** at the bottom of the **Application Lockdown** pane.
4. To delete multiple existing trusted hash values:
   a. Click the checkboxes next to the existing trusted hash values.
   b. Click the **Delete** button next to the **Import** button.
   c. A warning message window appears. Click **Confirm** to delete the selected items.
5. To delete single existing trusted hash values:
   a. Find the trusted hash value to be deleted and click the corresponding Delete icon in the **Actions** column.
   b. A warning message window appears. Click **Confirm** to delete the selected item.

Multi-Method Threat Prevention

The Multi-Method Threat Prevention provides advanced threat scan to secure the endpoints without interrupting the endpoints's operations via machine learning and ICS root of trust. Related settings include:

- *Real-Time Scan on page 5-15*
- *Scheduled Scan on page 5-17*
- *Advanced Settings on page 5-18*

Real-Time Scan

Real-Time Scan provides persistent and ongoing file scan for the endpoints. Each time a file is received, opened, downloaded, copied, or modified, **Real-Time Scan** always scans the file for security assessment.

Moreover, a persistent scan cache is maintained and reloaded each time the **Real-Time Scan** is executed. The **Real-Time Scan** tracks any changes made to files or folders that have occurred until the function is disabled and the files are unloaded and removed from the scan cache.

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

   Note

   For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Go to the **Real-Time Scan** section in the **Multi-Method Threat Prevention** pane.
4. Toggle on the **Real-Time Scan**.

   Note

   See *Advanced Settings on page 5-18* for instructions on how to configure the types of the files to be scanned, the action to take after possible security risk is detected, and the scan exclusion list.

Predictive Machine Learning

The **Predictive Machine Learning** uses intelligent machine learning technology to correlate threat information and perform an in-depth file analysis for emerging unknown security risk detection through digital DNA fingerprinting, API mapping, and other file properties. **Predictive Machine Learning** also performs a behavioral analysis on unknown or low-prevalence processes to determine if an emerging or unknown threat is attempting to infect your network. **Predictive Machine Learning** is a powerful tool that helps protect your assets and network environment against unidentified threats and zero-day attacks.

To enable **Predictive Machine Learning**, find and click the check box next to it in the section of **Real-Time Scan** in the **Multi-Method Threat Prevention** pane.

Scheduled Scan

You can customize a regular antivirus scan schedule for elevating vulnerability scanning to its potential, as well as providing less burden on technical operators.

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

   Note

   For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Go to the **Scheduled Scan** in the **Multi-Method Threat Prevention** pane.
4. Toggle the **Scheduled Scan** on.
5. Click the **Schedule** button. A **Schedule** window appears.
6. Select one of the radio buttons listed below for determining the scan frequency.
   - **Daily**: Perform scanning every day
   - **Weekly**: Perform scanning every week (by default it's set as **every Sunday**)
   - **Monthly**: Perform scanning every month (by default it's set as **on day 01**)

Important

Since not every month contains the date 29th, 30th, or 31st, e.g., February only has 28 days (29 days on a leap year), TXOne Networks recommends NOT selecting the date 29th, 30th, or 31st for monthly update frequency. This helps prevent the system from bypassing the update in the month that does not contain the date 29th, 30th, or 31st.

7. Specify the scan start time in the **Start Time** field (by default it's set as **00:00**).
8. Click **Confirm** to complete the setting.

Note

See *Advanced Settings on page 5-20* for instructions on how to configure the types of the files to be scanned, the action to take after possible security risk is detected, and the scan exclusion list.

Advanced Settings

The **Advanced Settings** allows you to configure the types of the files to be scanned, CPU usage setting, the action to take after possible security risk is detected, and the scan exclusion list.

Note

CPU usage setting is not available for **Real-Time Scan**.

Advanced Settings for Real-Time Scan

Procedure

1. Go to **Agents** > **Policy** > **Multi-Method Threat Prevention**.
2. Click the **Advanced Settings** in the **Real-Time Scan** section.
3. The **Advanced Settings** configuration window appears.

4. The configuration window consists of three sections: **Files to Scan**, **Scan Action**, and **Scan Exclusions**.
5. In the **Files to Scan** section:
   - check **Scan compressed files** and select the **Maximum layers** between 1 and 20 for the compressed files.
   - To skip scanning files over a certain size, check **Skip files larger than** and specify the file size between 1 and 2048 MB. Files exceeding the specified file size will not be scanned.
6. In the **Scan Action** section, you can pre-define the action to take after threats are detected during the scanning. Select **Quarantine** to place the suspicious files detected in an isolated folder for futher checking. Select **No action** to produce only a readout of results with no actions taken on the suspicious files.
7. The **Scan Exclusions** section allows you to exclude certain folders, files, or file extensions from being scanned.
   - **Folders**: Specify a path to the folders that do not require scanning.
   - **Files**: Specify a path to the files that do not require scanning.
   - **File Extensions**: Specify the file extension of certain files that do not require scanning.

Note

- StellarProtect supports only local paths for Scan Exclusions. Remote paths such as an URL or `\\[Hostname]` are not supported.
- It is not required to add "." or "*." in front of the file extension.

Tip

Click the "+" or "-" icon to add or delete the folder/file paths or file extensions.

8. Click **Confirm** to complete the settings.

Advanced Settings for Scheduled Scan

Procedure

1. Go to **Agents** > **Policy** > **Multi-Method Threat Prevention**.
2. Click the **Advanced Settings** in the **Scheduled Scan** section:
3. The **Advanced Settings** configuration window appears.
4. The configuration window consists of four sections: **Files to Scan**, **CPU Usage**, **Scan Action**, and **Scan Exclusions**.
   a. In the **Files to Scan** section, click **All local folders** to scan all files in detail; click **Default folders (Quick Scan)** for a general scan; or click **Specific folders** to specify the paths to the folders for scan.

      Tip
      Under the **Specific folders** option, click the "+" or "-" icon to add or delete paths to the specific folders.

      - (Optional) Check **Scan compressed files** and select the **Maximum layers** between 1 and 20 for the compressed files.
      - (Optional) To skip files over a certain size, check **Skip files larger than** and specify the file size between 1 and 2048 MB. Files exceeding the specified file size will not be scanned.

   b. The **CPU Usage** settings allow you to select the appropriate mode of CPU usage to balance between the scan and the available CPU resources depedning on situations. There are two options available:
      - Click **Normal** to reduce the impact on the service performance, which allows you to perform other tasks while scanning but the scan may take longer to complete.
      - Click **High** to reduce scan time, which requires higher CPU usage and may affect the system performance.

c. In the **Scan Action** section, you can pre-define the action to take after threats are detected. Select **Quarantine** to place the suspicious or infected files detected in an isolated folder for further checking. Select **No action** to produce only a readout of results with no actions taken on the suspicious files.

d. (Optional) The **Scan Exclusions** section allows you to exclude certain folders, files, or file extensions from being scanned.

- **Folders**: specify a path to the folders that do not require scanning.
- **Files**: specify a path to the files that do not require scanning.
- **File Extensions**: specify the file extension of certain files that do not require scanning.

Note

- StellarProtect supports only local paths for **Scan Exclusions**. Remote paths such as an URL or `\\[Hostname]` are not supported.
- It is not required to add "." or "*." in front of the file extension.

Tip

Click the "+" or "-" icon to add or delete paths to the specific folders/ files or file extensions for specific file types .

5. Click **Confirm** to complete the settings.

Operations Behavior Anomaly Detection for StellarProtect

The **Operations Behavior Anomaly Detection** strengthens security resilience and operation stability by leveraging Cyber-Physical System Detection and Response (CPSDR). It collects behavioral patterns in the OT environment and identifies any unexpected changes or abnormal behaviors that could impact the operation.

This feature primarily defends against unexpected changes that may impact operational stability by comparing daily operation processes and behaviors with a unique baseline of each agent-device and performing comprehensive behavioral analysis not only via identifying baseline deviation but also using TXOne Networks's exclusive industrial application repository and ransomware detection engine.

Navigate to the target agent or group, and then go to its **Policy** page. For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

Scroll down and find the **Operations Behavior Anomaly Detection** pane.

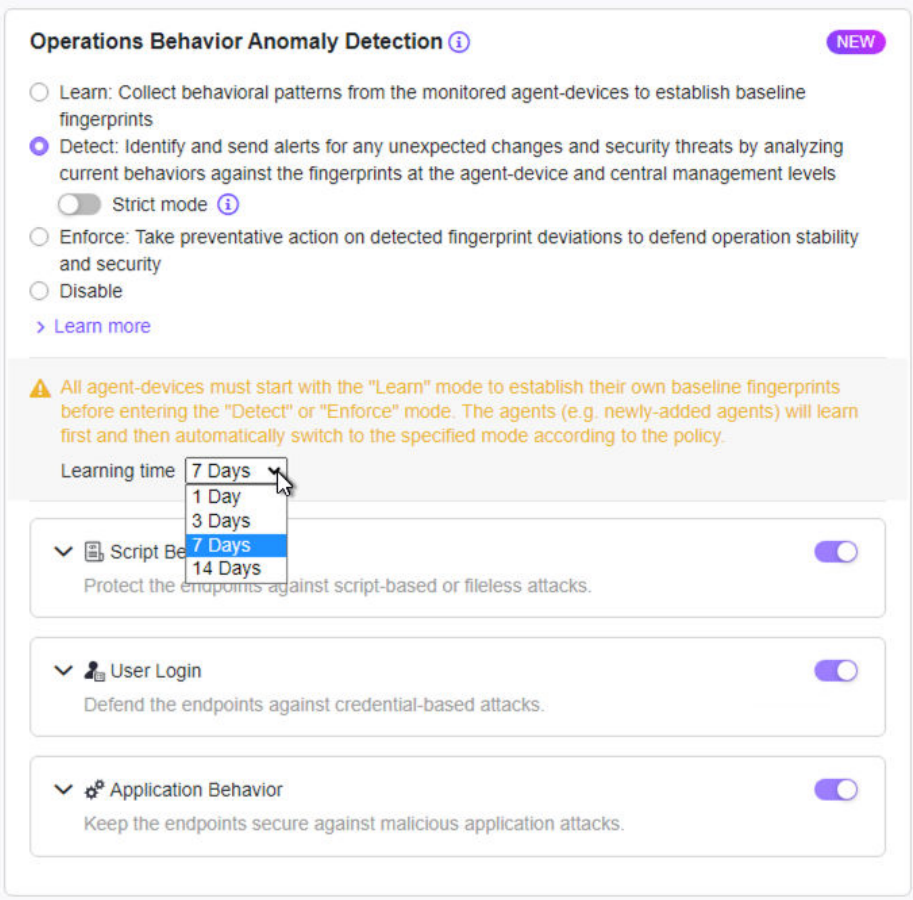


FIGURE 5-2. Operations Behavior Anomaly Detection for StellarProtect

The **Operations Behavior Anomaly Detection** for StellarProtect provides four normal modes for three pillars of protection. In addition, there is a special mode under two of the normal modes. See the details below for more information.

Four Normal Modes:

- **Learn**: In this mode, StellarProtect collects behavioral patterns from the monitored agent-devices to establish baseline fingerprints.

  Important

  TXOne Networks recommends setting the target agents to the **Learn mode** first to establish their own baseline fingerprints before they can perform automated behavioral analysis in the **Detect** or **Enforce** mode. See *Operations Behavior Anomaly Detection for StellarProtect - Use Case on page 5-32* for more details.

- **Detect**: In this mode, StellarProtect identifies and sends alerts for any unexpected changes or security threats by analyzing current behaviors against the fingerprints at the agent-device and central management levels.

  - **Strict mode**: This special mode appears when you select the **Detect** mode. Enabling the **Strict mode** reduces the level of the fingerprint deviation allowed; in other words, it performs stricter comparison between the established baseline and currently-running operational behaviors. In more dynamic operating environments where devices and access behaviors are more subject to change, this may generate more events.

- **Enforce**: In this mode, StellarProtect takes preventative action on detected fingerprint deviations to defend operation stability and security.

  - **Strict mode**: This special mode appears when you select the **Enforce** mode. Enabling the **Strict mode** reduces the level of the fingerprint deviation allowed; in other words, it performs stricter comparison between the established baseline and currently-running operational behaviors. In more dynamic operating environments where devices and access behaviors are more subject to change, this may generate more events and require more preventative actions to be taken.

- **Disable**: The Operations Behavior Anomaly Detection can also be disabled if needed, but it is recommended to have this function enabled to maintain security against behavior anomalies.

Learning time:

When **Detect** or **Enforce** mode is selected, the **Learning time** option becomes available. You can specify the learning period for the target agents/group from the **Learning time** menu. The agents that have not established their own baselines will then start learning and once the learning period ends, they will automatically switch to the predefined **Detect** or **Enforce** mode.

See *Setting the Learning Time on page 5-27* and *Setting the Learning Time - Use Case on page 5-29* for more information.

Three Pillars of Protection:

- **Script Behavior**: Protects the endpoints against script-based of fileless attacks when enabled. By comparing the list of script behaviors and monitored process in the baseline with those running for daily operations, unrecognized monitored process or unexpected script behaviors will be detected as anomalies and trigger event notifications or be blocked.
  - **Approved Script Behaviors in Baseline**: Click this link to go to the **Situational Awareness** page for viewing the approved script behaviors and relevant details stored in the baseline at the agent level. See *Approved Applications on page 5-95* for more information.
  - **Policy-based Watchlist**: Click this link to manually add commonly-abused applications used in operations and processes to the Monitored Application list for strengthening security monitoring. See *Policy-based Watchlist on page 5-30* for more information.
- **User Login**: Defends the endpoints against credential-based attacks when enabled. By comparing the list of user accounts and login activities in the baseline with those used for daily operations, unrecognized user accounts or unexpected login activities will be detected as anomalies and trigger events.

- **Approved Login Accounts in Baseline**: Click this link to go to the **Situational Awareness** page for viewing the approved user accounts and relevant details stored in the baseline at the agent level. See *Approved Login Accounts on page 5-94* for more information
- **Policy-based Approved Login Accounts**: Click this link to manually add approved user accounts and relevant details used in operations and processes to avoid false alerts. See *Policy-based Approved Login Accounts on page 5-31* for more information.

- **Application Behavior**: Safeguards the endpoints against malicious application attacks. By comparing the list of applications and application behaviors in the baseline with those running for daily operations, unrecognized applications or unexpected application behaviors will be detected as anomalies and trigger incident notifications.
  - **Approved Applications in Baseline**: Click this link to go to the **Situational Awareness** page for viewing the approved applications and relevant details stored in the baseline at the agent level. See *Approved Applications on page 5-95* for more information.
  - **Policy-based Approved Applications**: Click this link to manually add approved applications and relevant details used in operations and processes to avoid false alerts. See *Policy-based Approved Applications on page 5-32* for more information.

The three pillars of protection can be individually toggled on for guarding separate vulnerability points, or you can choose to enable them all and set in the **Strict mode** for maximum defense.

Note

For more details on how the **Strict mode** works for the three pillars, see *Strict Mode on page 5-35* and *Strict Mode - Use Case on page 5-38*.

The following table illustrates how the three pillars work in the **Learn**, **Detect**, and **Enforce** modes.

TABLE 5-1. An example of how Operations Behavior Anomaly Detection works

OPERATIONS BEHAVIOR ANOMALY DETECTION	SCRIPT BEHAVIORS	USER LOGIN	APPLICATION BEHAVIOR
Learn	Stores the approved script behavior listed below in the baseline: **For example:** `explorer.exe→cmd.exe→`	Stores the login account listed below in the baseline: **For example:** • Username: `admin` • Domain: TXOne	Stores the application behavior listed below in the baseline: **For example:** • Application: Google Chrome • Behavior: 1
Detect	Sends alerts for the unexpected change: **For example:** `cmd.exe → explorer.exe→`	Sends alerts for the unexpected change: **For example:** Username: `admin1`	Sends alerts for the unexpected changes: **For example:** Behavior: 2
Enforce	Blocks the malicious cripts from executing: **For example:** `cmd.exe → explorer.exe→`	Sends alerts for the unexpected change: **For example:** Username: `admin1`	Sends alerts for the unexpected changes: **For example:** Behavior: 2

Setting the Learning Time

When the **Detect** or **Enforce** mode of **Operations Behavior Anomaly Detection** is selected, the **Learning time** option becomes available. You can specify the learning period for the target agents/group from the **Learning time** menu. The agents that have not established their own baselines will then start learning and once the learning period ends, they will automatically switch to the predefined **Detect** or **Enforce** mode.

See the following instructions for how to set the learning time.

Procedure

1. Go to **Agents** > **Policy**, scroll down and find the **Operations Behavior Anomaly Detection** pane. Select **Detect** or **Enforce**.
2. The **Learning time** section appears.
3. Scroll down and determine which security pillars (**Scrip Behavior**, **User Login**, or **Application Behavior**) you want to enable. Ensure you toggle on at least one of them for the agent-device to establish the associated baseline.

   Note

   The three security pillars can be individually toggled on for guarding separate vulnerability points, or you can choose to enable them all for the complete protection.

4. Specify the learning period for the target agent-device from the **Learning time** menu.
5. A progress bar displaying how many days left for learning will appear on the **Agents** screen or the **General Info** page for the agent-device. See *About the Agents Screen on page 4-2* for more information.

   Note

   - The learning time counts only when the target agent-device is powered on.
   - If you toggle on the security pillars separately, though the learning period is specified and fixed, the actual learning time displayed on the progress bar varies depending on when the last pillar is enabled. Besides, the agent switches to the predefined **Detect** or **Enforce** mode for the security pillars separately. See the following use case for more details.

Setting the Learning Time - Use Case

See the example below for how the learning time works if the security pillars are enabled separately.

Procedure

1. Three days ago, you've enabled the **Detect** mode for **Operations Behavior Anomaly Detection**, toggled on the **Scrip Behavior**, and set the **Learning time** to 3 days.
2. This morning, you enabled the **User Login** and then the agent started establishing the baseline of the approved login accounts.
3. If you had not enabled the **User Login** today, the learning progress bar displayed on the **Agents** screen should have disappeared and the status should have changed to **Detect**. However, the progress bar still exists because you enabled the **User Login** today (without changing the learning period, which was set to 3 days).
4. For now, the agent is multitasking for the **Operations Behavior Anomaly Detection** function:
   - The **Scrip Behavior** baseline has been established and the agent is actually detecting any anomalies now. You may find relevant events on the Agent Events.
   - The agent is now establishing the **User Login** baseline. The learning progress bar on the **Agents** screen indicates there are 3 days left for learning before entering the **Detect** mode.
5. Moreover, if you changed the learning time to 7 days while enabling the **User Login** today, the agent would start updating the baseline for **Scrip Behavior**; on the other hand, it would start establishing the baseline for **User Login**. To elaborate, since the agent has already collected the script behaviors for 3 days, the actual learning time for **Scrip Behavior** was extended to 4 days only. As for the **User Login**, the actual learning time was set to 7 days.

Policy-based Watchlist and Approved Items

You can specify policy-based watchlist for monitoring fileless attacks, or policy-based approved login accounts or applications to avoid false alerts at the agent or group level.

Related settings include:

- *Policy-based Watchlist on page 5-30*
- *Policy-based Approved Login Accounts on page 5-31*
- *Policy-based Approved Applications on page 5-32*

Policy-based Watchlist

By default, StellarProtect monitors `Powershell.exe`, `wscript.exe`, `cscript.exe`, `mshta.exe`, and `psexec.exe` when the **Operations Behavior Anomaly Detection** "**Detect**" or "**Enforce**" mode is enabled with the **Script Behavior** toggled on. In addition to the default monitored applications, you can also manually add commonly-abused applications used in operations and processes to the **Policy-based Watchlist** for strengthening security monitoring.

See the following instructions for how to add applications to the **Policy-based Watchlist**.

Procedure

1. Go to **Agents** > **Policy**, scroll down and find the **Operations Behavior Anomaly Detection** pane. Select **Operations Behavior Anomaly Detection Learn**, **Detect**, or **Enforce**.
2. Toggle on the **Scrip Behavior**.
3. Click **Scrip Behavior** to expand this section.
4. Find and click the **Policy-based Watchlist**.
5. Click **+Add** and then specify the application to be monitored.
6. Click **Add** and the added application appears in the **Monitored Application** list.

7. Click **Close** to close the window.

Tip

To delete the added application one by one, click the Delete icon in the **Actions** column; to delete multiple applications, click the checkboxes next to them and then click **Delete** > **Confirm**.

Policy-based Approved Login Accounts

You can manually add approved user accounts and relevant details used in operations and processes into the **Policy-based Approved Login Accounts** to avoid false alerts.

See the following instructions for how to add the approved user accounts to the **Policy-based Approved Login Accounts**.

Procedure

1. Go to **Agents** > **Policy**, scroll down and find the **Operations Behavior Anomaly Detection** pane. Select **Operations Behavior Anomaly Detection Learn**, **Detect**, or **Enforce**.
2. Toggle on the **User Login**.
3. Click **User Login** to expand this section.
4. Find and click the **Policy-based Approved Login Accounts**.
5. Click **+Add** and then specify the user account and relevant information.
6. Click **Add** to add the approved user account.
7. Click **Close** to close the window.

Tip

To delete the added user accounts one by one, click the Delete icon in the **Actions** column; to delete multiple user accounts, click the checkboxes next to them and then click **Delete** > **Confirm**.

Policy-based Approved Applications

You can manually add approved applications used in operations and processes into the **Policy-based Approved Applications** to avoid false alerts.

See the following instructions for how to add the approved applications to the **Policy-based Approved Applications**.

Procedure

1. Go to **Agents** > **Policy**, scroll down and find the **Operations Behavior Anomaly Detection** pane. Select **Operations Behavior Anomaly Detection Learn**, **Detect**, or **Enforce**.
2. Toggle on the **Application Behavior**.
3. Click **Application Behavior** to expand this section.
4. Find and click the **Policy-based Approved Applications**.
5. Click **+Add** and then specify the path to the application and relevant information.
6. Click **Add** to add the approved application.
7. Click **Close** to close the window.

Tip

To delete the added applications one by one, click the Delete icon in the **Actions** column; to delete multiple user accounts, click the checkboxes next to them and then click **Delete** > **Confirm**.

Operations Behavior Anomaly Detection for StellarProtect - Use Case

The **Operations Behavior Anomaly Detection** embodies the CPSDR concept and has a deep understanding of what the expected behaviors for each device are from learning the behaviors of each agent-device first. Every agent continuously analyzes its host device to establish and maintain a unique baseline fingerprint. Then in real-time, unexpected behaviors and deviations from this fingerprint can be detected at the individual agent level and then

secondarily at the centralized control level to inform wider instability issues and prompt preventative actions.

See the following procedures as the recommended practice when you start using the **Operations Behavior Anomaly Detection**:

Procedure

1. Toggle on the **Learn** mode of the **Operations Behavior Anomaly Detection** on the Policy page. Ensure that you toggle on the **Script Behaviors**, **User Login**, and **Application Behavior** as well.
2. Deploy all the required configuration, features, updates, or fixes, and run all the daily operation processes during the **Learn** mode.

   Note

   If the Application Lockdown is enabled, ensure you turn on the maintennace mode when performing these deployments.

   a. Toggle on the **User Login**:

      1. Use the required user accounts to log into the agent-device.
      2. Ensure you also log in from different IP addresses or domains if it is required during your daily operation processes.

      Note

      You can also manually add approved user accounts and relevant details used in the operations and processes into the **Policy-based Approved Login Accounts**.

   b. Toggle on the **Application Behaviors**:

      - Run the applications required for daily operation processes.
      - Download required applications or execute updates or fixes required for existing applications on the agent-device.

Note

You can also manually add approved applications used in the operations and processes into the **Policy-based Approved Applications**.

c. Toggle on the **Scrip Behavior**:

- Run the scripts required for your daily operation processes.
- Run the scripts accompanied with parameters.

Note

By default, StellarProtect monitors the commonly-abused script running applications such as `Powershell.exe`, `wscript.exe`, `cscript.exe`, `mshta.exe`, and `psexec.exe`. Ensure you manually add other commonly-abused applications used in your daily operation processes to the **Policy-based Watchlist** for strengthening security monitoring.

3. After all the operation processes have been executed and learned, switch to the **Detect** mode and check if any events will be triggered by the normal daily operations.

Note

- You can check the Agent event logs to see if there's any anomalous operation or process detected. See *Agent Events on page 7-2* for more details.
- See *Strict Mode on page 5-35* and *Strict Mode - Use Case on page 5-38* for more details on using the **Strict mode**.

4. Switch to the **Enforce** mode for activating preventative actions (Script Behaviors only). If any unexpected script execution occurs, it should be blocked.

Note

If you also enable the **Strict mode**, only the exact script running processes (with exact parameters) that have been learned and stored in the baseline will be allowed. You can check the **Situational Awareness** > **Script Behaviors** page to make sure the specific full operation processes (parameters included) have been added in the agent baseline.

Strict Mode

The **Strict mode** under the **Detect** or **Enforce** mode is used for stronger threat protection. Enabling **Strict mode** reduces the level of baseline fingerprint deviation allowed; in other words, it performs stricter comparison between the established baseline and currently-running operational behaviors.

Note

In more dynamic processes where devices and access behaviors are more subject to change, this may generate more events. See *Strict Mode - Use Case on page 5-38* for information.

To enable **Strict mode**, set the **Operations Behavior Anomaly Detection** to **Detect** or **Enforce** mode, and then toggle on specifc pillars of protection for guarding separate vulnerability points or simply enable them all for maximum defense.

See below for more details on how the three pillars work in **Strict mode**.

Script Behaviors: In the **Strict mode**, the operation process and the monitored process or script must exactly match the approved full operation process stored in the baseline; otherwise, events will be generated or the process will be blocked.

See below as an example of how the **Strict mode** works for the **Script Behaviors**.

1. When you select the **Learn** mode under the **Operations Behavior Anomaly Detection**, the following full operation process is learned:

- `explorer.exe` → `cmd.exe` → `powershell.exe` → `script.ps1`

2. When you switch to the **Detect** or **Enforce** mode without turning on the **Strict Mode**, StellarProtect will not block recognized program calls with unidentified script; the following process is allowed:

   - `explorer.exe` → `cmd.exe` → `powershell.exe` → `NEWscript.ps1`

   Note

   The `NEWscript.ps1` does not count as an unrecognized script in the process when the **Strict Mode** is turned off.

3. When the **Strict Mode** is turned on, no matter it's under the **Detect** or **Enforce** mode, the following process is not allowed:

   - `explorer.exe` → `cmd.exe` → `powershell.exe` → `NEWscript.ps1`

   Note

   The `NEWscript.ps1` is detected as an unrecognized script that will trigger alerts or be blocked when **Strict Mode** is enabled.

4. In conclusion, when **Strict Mode** is turned on, only the exact process (the process learned in *Step 1*) is allowed:

   - `explorer.exe` → `cmd.exe` → `powershell.exe` → `script.ps1`

TABLE 5-2. Example: Script Behaviors - Strict Mode ON/OFF

	SCRIPT BEHAVIORS			OPERATIONS BEHAVIOR ANOMALY DETECTION			
	APPROVED OPERATION	MONITORED PROCESS		DETECT	ENFORCE	DETECT	ENFORCE
		MONITORED APPLICATION	SCRIPT	STRICT MODE: OFF		STRICT MODE: ON	
Process learned and stored in the baseline	`explorer.exe→cmd.exe→`	`powershell.exe→`	`script.ps1`	Allowed			
Operation process changed	**`cmd.exe→explorer.exe→`**	`powershell.exe→`	`script.ps1`	Events	Blocked	Events	Blocked
Monitored application changed	`explorer.exe→cmd.exe→`	**`cscript.exe→`**	`script.ps1`	Events	Blocked	Events	Blocked
Script changed	`explorer.exe→cmd.exe→`	`powershell.exe→`	**`NEWscript.ps1`**	Allowed		Events	Blocked

User Login: In the **Strict mode**, the user accounts and the login activities must exactly match the approved user accounts stored in the baseline; otherwise, events will be generated.

Application Behavior: In the **Strict mode**, the application behaviors must exactly match the approved application behaviors stored in the baseline; otherwise, events will be generated.

See *Strict Mode - Use Case on page 5-38* for the description of how you can use the **Strict mode** to maximize its effectiveness.

Strict Mode - Use Case

As **Strict mode** performs stricter comparison between the established baseline and currently-running operational behaviors, it does not allow too much deviations from the baseline and thus may be more appropraite to be used for static environments that is intended to remain unchanged by users and administrators. For example, it may be a shared deployment environment with permanent infrastructure, where all the features and fixes are deployed once at the end of a planned release cycle.

Facing the growing prevalence of script-based attacks such as fileless malware or `PowerShell` abuse, the behavioral pattern identification along with parameter recognization for defending unknown threats adds an extra layer of protection without impacting the operational stability.

To illustrate: the global policy may restrict the use of `PowerShell`. However, one device uses `PowerShell` for regular system updates and there is a specific command run to complete the process. The agent for this device can allow `PowerShell` to be used for this specific process. No individual policy override is needed, and any other use of `PowerShell` on other devices will still be blocked.

See the following procedures as the recommended practice:

1. Organize the agents in the static environment as a group and set the **Operations Behavior Anomaly Detection** "**Learn**" mode as one of the group policy settings. Ensure that you toggle on the **Script Behaviors**.
2. Deploy all the required configuration, features, updates, or fixes, and run all the daily operation processes during the learning period.

   Note

   If the Application Lockdown is enabled, ensure you turn on the maintennace mode when performing the deployments.

3. For the specific agent-device that uses `PowerShell` as the regular system update tool, check the **Situational Awareness** > **Approved Script**

Behaviors page to make sure the specific full operation process with parameter identification has been included in the agent baseline.

4. After all the operation processes have been executed and learned, switch to the **Detect** mode and check if any events will be triggered by the normal daily operations. When you run the `PowerShell` command on the specific agent and other agent-devices in the same group; one should treat it as a normal behavior and the other ones should treat it as anomalies and trigger events.

Note

You can check the Agent event logs to see if there's any anomalous operation or process detected. See *Agent Events on page 7-2* for more details.

5. Switch to the **Enforce** mode and enable the **Strict mode** for activating preventative actions. For most of the devices, the use of `PowerShell` should be blocked; for the specific device, only the exact process for running the `PowerShell` that have been learned and stored in the baseline will be allowed.

Migration/Upgrade from Previous Version - Use Case

For StellarOne migrated or upgraded from previous versions to 3.0, see the following use case.

Note

After you migrate or upgrade StellarOne to version 3.0, please also upgrade the managed agents to the latest version. Though StellarOne provides backward compatibility to support agents with earlier version, new features or enhanced functionality should not be applicable on some agents with earlier versions.

1. If the original policy setting of the **Operations Behavior Anomaly Detection** was set to the **Detect** or **Enforce** mode, after migrated or

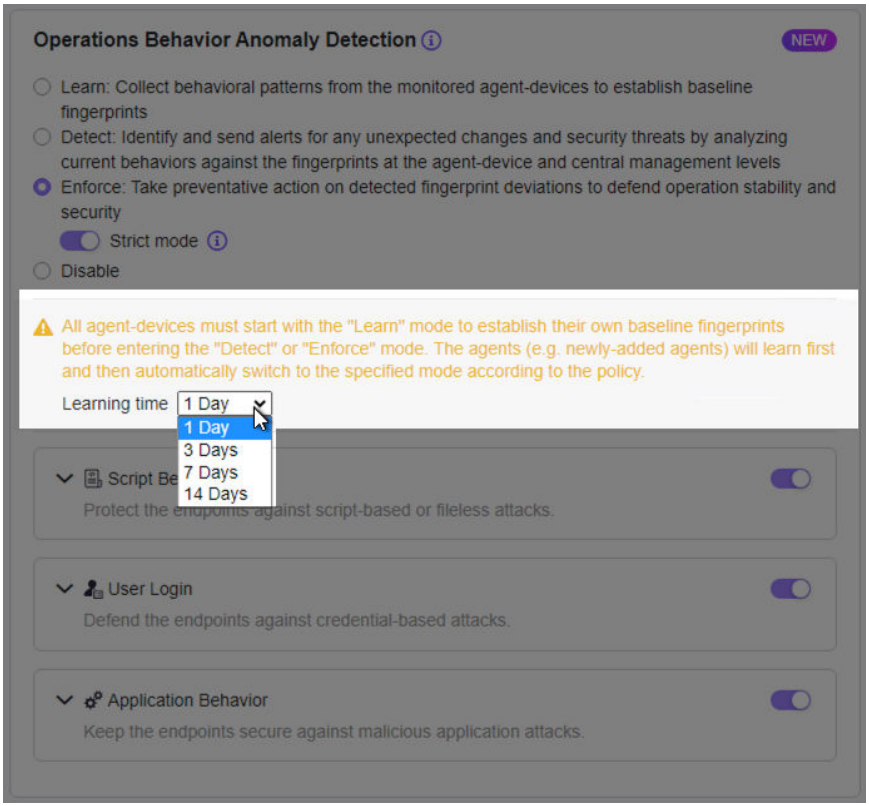
upgraded to version 3.0, the StellarOne would retain the previous setting and the **Script Behavior** toggle would be automatically turned on.

2. After then, if you enable the **User Login** or **Application Behavior**, the agent automatically starts learning by collecting the related behavioral patterns performed on the device to establish its baseline fingerprint for **User Login** or **Application Behavior**.

Note

The learning of the **User Login** or **Application Behavior** does not change the original policy setting of the **Operations Behavior Anomaly Detection**.

3. In the **Operations Behavior Anomaly Detection** pane, find and set the **Learning time**.



Note

- See the *Operations Behavior Anomaly Detection for StellarProtect - Use Case on page 5-32* for the recommended practice as you start using the **Operations Behavior Anomaly Detection** and evaluate the proper learning period for the agent-device.
- The learning time counts only when the agent-device is powered on.

4. Go to the **Agents** screen. You can find the the learning progress bar displayed in the **Operations Behavior Anomaly Detection** column for the agent-device. Mouse over the progress bar to check how many days

left for learning. See *About the Agents Screen on page 4-2* for more information.

Note

In addition to the progress bar displayed on the **Agents** screen, you can also check the learning progress on the **General Info** page for the agent-device.

5. After learning, the agent-device will automatically switch to the specified mode according to the original policy settings.

Sizing Table - 2nd Disk Space Requirement

The StellarOne requires an external disk for storing system configurations and event logs. To ensure the storage requirement for the agent baselines is fulfilled, see the following tables for the required external disk space depending on the number of the installed agents.

TABLE 5-3. Sizing Table for StellarOne deployed on VMware

MAX. NO. OF AGENTS	MIN NO. OF VCORES	MEMORY SIZE	1ST HDD SPACE	2ND HDD SPACE (RECOMMENDED)	2ND HDD SPACE REQUIRED WHEN OPERATIONS BEHAVIOR ANOMALY DETECTION ENABLED
30,000	8	32 GB	25 GB	100 GB	475 GB
20,000	8	16 GB		100 GB	350 GB
15,000	4	16 GB		50 GB	250 GB
10,000	4	16 GB		50 GB	175 GB
5,000	4	12 GB		50 GB	125 GB
1,000	4	12 GB		50 GB	70 GB

Max. No. of Agents	Min No. of vCores	Memory Size	1st HDD Space	2nd HDD Space (Recommended)	2nd HDD Space required when Operations Behavior Anomaly Detection enabled
500	4	12 GB		50 GB	60 GB

Table 5-4. Sizing Table for StellarOne deployed on Hyper-V

Max. No. of Agents	Min. No. of CPU	Memory Size	1st HDD Space	2nd HDD Space (Recommended)	2nd HDD Space required when Operations Behavior Anomaly Detection enabled
30,000	10	24 GB	25 GB	100 GB	475 GB
20,000	8	16 GB		100 GB	350 GB
15,000	8	16 GB		50 GB	250 GB
10,000	8	16 GB		50 GB	175 GB
5,000	8	16 GB		50 GB	125 GB
1,000	4	16 GB		50 GB	70 GB
500	4	8 GB		50 GB	60 GB

OT Application Safeguard

OT Application Safeguard is an industrial-based change control protection. This feature ensures the StellarProtect-recognized OT applications can be updated without being blocked or restricted. In addition, you can enable OT

application protection to secure recognized OT application executable binary files.

To enable **OT Application Safeguard**, go to **Agent** > **Policy**, scroll down to find and toggle on the **OT Application Safeguard** at the left side of the screen.

Upon launch, StellarProtect will auto-detect currently-installed OT applications and put them under protection. The recognized OT applications will be shown on the **Situational Awareness** tab page. Follow the instructions to view the identified OT applications.

Procedure

1. Go to **Agent** > **Policy**, scroll down to find and toggle on the **OT Application Safeguard** at the left side of the screen.
2. Find and click the **OT Applications**
3. The **Situational Awareness** screen appears.
4. Check the OT Applications automatically recognized by the StellarProtect agent.

Important

- Be sure to enable the **Maintenance Mode** before installing new OT applications. After the installation process completes, disable the **Maintenance Mode** and then StellarProtect will auto re-scan the newly-added OT applications. Any new applications found will be added into the OT Application Safeguard list. See *Configure Maintenance Mode on page 4-11* for how to enable this function.
- Be sure to enable the **Learn** mode of **Operations Behavior Anomaly Detection** before installing new OT applications. After the installation process completes, the StellarProtect agent will add the new OT applications into the **OT Applications** list displayed on the agent's **Situational Awareness** page. See *Operations Behavior Anomaly Detection for StellarProtect on page 5-21* for more details.

5. You can also manually add the installation path for the application into the Safeguard's protection list.

   a. Go to the **Policy** page and scroll down and find the **OT Application Safeguard** at the left side of the screen.

   b. Make sure the **OT Application Safeguard** toggle is switched on.

   c. Click **File/Folder**, and then the configuration window appears.

   d. Click the **+Add** button, and then select **Folder** or **File** and specify the folder or file path in the corresponding text fields.

   Note

   By default, StellarProtect will only protect the PE files (`.exe` and `.dll`) under the selected folder and its subfolder(s).

   e. (Optional) If you want to protect all files inside the selected folder, please uncheck the **Executable files only**.

   Tip

   By unchecking the **Executable files only**, users can prevent their own secret files, configurations, or other files under the selected folder from being modified.

   f. Click **Add** to complete the setting.

6. You can also add user-defined authorized processes.

   a. Go to **Policy** > **OT Application Safeguard**, and then click the **Authorized Processes**.

   b. The configuration window appears. Click the **+Add** button, and then specify the authorized processes in the corresponding text fields.

Important

By adding the authorized process, you may set other applications to be trusted and change the protected files/folders previously defined as well as the PE files for OT applications detected by agents. Please note if any malicious file has been set into the authorized process, StellarProtect cannot prevent this file from modifying the OT applications since it has been already excluded from the StellarProtect's monitoring process. Make sure the user-defined authorized process is safe before adding it.

c. Click **Add** to complete the setting.

DLL Injection Prevention

The **DLL Injection Prevention** provides protection against DLL hijacking attacks.

Note

Only x86 platform supports DLL injection Prevention.

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

   Note

   For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.
3. Scroll down and find the **DLL Injection Prevention** at the left side of the screen.

4. Toggle on **Block DLL Injection** to enable it.

Trusted Certificates

Similar to hash values, trusted certificates are made by the application vendors or organizations to allow StellarProtect to know which applications are trustworthy. The **Trusted Certificates** provides an import function allowing the administrator to add new trusted certificates. The trusted certificates defined by users and the corresponding applications will be bypassed during scanning and will not be blocked by Application Lockdown.

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

   Note

   For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Scroll down and find the **Trusted Certificates** at the right side of the screen.
4. Click **Import** to import the selected trusted certificate file.
5. To remove the trusted certificate(s), choose either way listed below.
   - For removing multiple trusted certificates at the same time, select them and click the **Delete** button next to the **+Add** button.
   - For removing only one trusted certificate, click the Delete icon in the **Actions** column.

   A pop-up **Notification** window appears. Click **Confirm** to delete the selected certificate(s).

Policy Settings for StellarProtect (Legacy Mode)

Policy settings for StellarProtect (Legacy Mode) agent include:

- *Application Lockdown on page 5-48*
- *Intelligent Runtime Learning on page 5-49*
- *Threat Prevention on page 5-49*
- *Operations Behavior Anomaly Detection for StellarProtect (Legacy Mode) on page 5-56*
- *Exclusions Settings on page 5-69*

See *Other Policy Settings for StellarProtect/StellarProtect (Legacy Mode) on page 5-81* for how to configure Agent Component Update Schedule, Device Control, User-Defined Suspicious Objects, Agent Password, and Agent Patch deployment for StellarProtect (Legacy Mode) agent.

Application Lockdown

When Application Lockdown is turned on, the agent will only be able to access applications that are in the Approved List.

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

   Note

   For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Go to the **Application Lockdown** pane, and then toggle on **Enable Application Lockdown**.

Note

See the *Exclusions Settings on page 5-69* for how to configure the exclusions for the Approved List.

Intelligent Runtime Learning

When **Intellegent Runtime Learning** is enabled, the agent will allow runtime execution files that are generated by applications in the Approved List.

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Find the **Intelligent Runtime Learning**, and then toggle it on.

Threat Prevention

The **Threat Prevention** persistently scan new and changed files, along with system memory, to provide security assessment for maximum protection against malware. Related settings include:

- *Real-Time Scan on page 5-49*
- *Scheduled Scan on page 5-17*
- *Advanced Settings on page 5-18*

Real-Time Scan

Real-time Scan provides persistent and ongoing file scan for the endpoints. Each time a file is received, opened, downloaded, copied, or modified, **Real-**

time Scan always scans the file for security assessment. After performing the **Real-Time Scan**, users can proceed to access the file if it does not pose a security threat. However, if a security risk or possible virus/malware has been detected during the scanning, a notification message appears indicating the name of the infected file and the specific security risk.

Moreover, a persistent scan cache is maintained and reloaded each time the **Real-Time Scan** is executed. The **Real-Time Scan** tracks any changes made to files or folders that have occurred until the function is disabled and the files are unloaded and removed from the scan cache.

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

   Note

   For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Find the **Real-Time Scan** in the **Threat Prevention** pane.
4. Toggle **Real-Time Scan** on to enable the function.

   Note

   See the *Advanced Settings on page 5-52* for instructions on how to configure the types of the files to be scanned, the action to take after possible security risk is detected, and the scan exclusion list.

Scheduled Scan

You can customize a regular antivirus scan schedule for elevating vulnerability scanning to its potential, as well as providing less burden on technical operators.

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Go to the **Scheduled Scan** in the **Threat Prevention** pane.
4. Toggle the **Scheduled Scan** on.
5. Click the **Schedule** button. A **Schedule** window appears.
6. Select one of the radio buttons listed below for determining the scan frequency.
   - **Daily**: Perform scanning every day
   - **Weekly**: Perform scanning every week (by default it's set as **every Sunday**)
   - **Monthly**: Perform scanning every month (by default it's set as **on day 01**)

Important

Since not every month contains the date 29th, 30th, or 31st, e.g., February only has 28 days (29 days on a leap year), TXOne Networks recommends NOT selecting the date 29th, 30th, or 31st for monthly update frequency. This helps prevent the system from bypassing the update in the month that does not contain the date 29th, 30th, or 31st.

7. Specify the scan start time in the **Start Time** field (by default it's set as **00:00**).
8. Click **Confirm** to complete the setting.

Note

See *Advanced Settings for Scheduled Scan on page 5-53* for instructions on how to configure the types of the files to be scanned, the action to take after possible security risk is detected, and the scan exclusion list.

Advanced Settings

The **Advanced Settings** allows you to configure the types of the files to be scanned, CPU usage setting, the action to take after possible security risk is detected, and the scan exclusion list.

Note

CPU usage setting is not available for **Real-Time Scan**.

Advanced Settings for Real-Time Scan

Procedure

1. Go to **Agents** > **Policy** > **Threat Prevention**.
2. Click the **Advanced Settings** in the **Real-Time Scan** section.
3. The **Advanced Settings** configuration window appears.
4. The configuration window consists of three sections: **Files to Scan**, **Scan Action**, and **Scan Exclusions**.
5. In the **Files to Scan** section:
   - Check **Scan compressed files** and select the **Maximum layers** between 1 and 20 for the compressed files.
   - To skip scanning files over a certain size, check **Skip files larger than** and specify the file size between 1 and 2048 MB. Files exceeding the specified file size will not be scanned.
6. In the **Scan Action** section, you can pre-define the action to take after threats are detected during the scanning. Select **Quarantine** to place the suspicious files detected in an isolated folder for futher checking. Select

No action to produce only a readout of results with no actions taken on the suspicious files.

7. The **Scan Exclusions** section allows you to exclude certain folders, files, or file extensions from being scanned.
   - **Folders**: Specify a path to the folders that do not require scanning.
   - **Files**: Specify a path to the files that do not require scanning.
   - **File Extensions**: Specify the file extension of certain files that do not require scanning.

Note

- StellarProtect supports only local paths for Scan Exclusions. Remote paths such as an URL or `\\[Hostname]` are not supported.
- It is not required to add "." or "*." in front of the file extension.

Tip

Click the "+" or "-" icon to add or delete the folder/file paths or file extensions.

8. Click **Confirm** to complete the settings.

Advanced Settings for Scheduled Scan

Procedure

1. Go to **Agents** > **Policy** > **Threat Prevention**.
2. Click the **Advanced Settings** in the **Scheduled Scan** section:
3. The **Advanced Settings** configuration window appears.
4. The configuration window consists of four sections: **Files to Scan**, **CPU Usage**, **Scan Action**, and **Scan Exclusions**.

Note

The StellarProtect (Legacy Mode) agents will automatically attempt to download the latest components before starting a scan. A **Component Update** toggle is available for you to determine whether the endpoints should continue with the scan if the component update is unsuccessful.

a. In the **Files to Scan** section, click **All local folders** to scan all files in detail; click **Default folders (Quick Scan)** for a general scan; or click **Specific folders** to specify the paths to the folders for scan.

Tip

Under the **Specific folders** option, click the "+" or "-" icon to add or delete paths to the specific folders.

- (Optional and StellarProtect (Legacy Mode) only) Check **Scan removable drives** to allow scanning files in removable drives
- (Optional) Check **Scan compressed files** and select the **Maximum layers** between 1 and 20 for the compressed files.
- (Optional) To skip files over a certain size, check **Skip files larger than** and specify the file size between 1 and 2048 MB. Files exceeding the specified file size will not be scanned.

b. The **CPU Usage** settings allow you to select the appropriate mode of CPU usage to balance between the scan and the available CPU resources depedning on situations. There are two options available:

- Click **Normal** to reduce the impact on the service performance, which allows you to perform other tasks while scanning but the scan may take longer to complete.
- Click **High** to reduce scan time, which requires higher CPU usage and may affect the system performance.

c. In the **Scan Action** section, you can pre-define the action to take after threats are detected. Select **Quarantine** to place the suspicious or infected files detected in an isolated folder for further checking.

Select **No action** to produce only a readout of results with no actions taken on the suspicious files.

Note

The StellarProtect (Legacy Mode) agents provide more choices such as:

- **Use ActiveAction**: The pre-configured scan actions, which are best to use if you are not familiar with scan actions or if you are not sure which scan action is suitable.
- **Clean, or delete if the clean action is unsuccessful**: To delete the target file if it cannot be recovered.
- **Clean, or quarantine if the clean action is unsuccessful**: To quarantine the target file if it cannot be recovered.
- **Clean, or ignore if the clean action is unsuccessful**: To ignore the target file if it cannot be recovered.

d. (Optional) The **Scan Exclusions** section allows you to exclude certain folders, files, or file extensions from being scanned.

- **Folders**: specify a path to the folders that do not require scanning.
- **Files**: specify a path to the files that do not require scanning.
- **File Extensions**: specify the file extension of certain files that do not require scanning.

Note

- StellarProtect supports only local paths for **Scan Exclusions**. Remote paths such as an URL or `\\[Hostname]` are not supported.
- It is not required to add "." or "*." in front of the file extension.

Tip

Click the "+" or "-" icon to add or delete paths to the specific folders/files or file extensions for specific file types .

5. Click **Confirm** to complete the settings.

Operations Behavior Anomaly Detection for StellarProtect (Legacy Mode)

The **Operations Behavior Anomaly Detection** strengthens security resilience and operation stability by leveraging Cyber-Physical System Detection and Response (CPSDR). It collects behavioral patterns in the OT environment and identifies any unexpected changes or abnormal behaviors that could impact the operation.

This feature primarily defends against unexpected changes that may impact operational stability by comparing daily operation processes and behaviors with a unique baseline of each agent-device and performing comprehensive behavioral analysis not only via identifying baseline deviation but also using TXOne Networks' exclusive industrial application repository and ransomware detection engine.

Navigate to the target agent or group, and then go to its **Policy** page. For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

Scroll down and find the **Operations Behavior Anomaly Detection** pane.

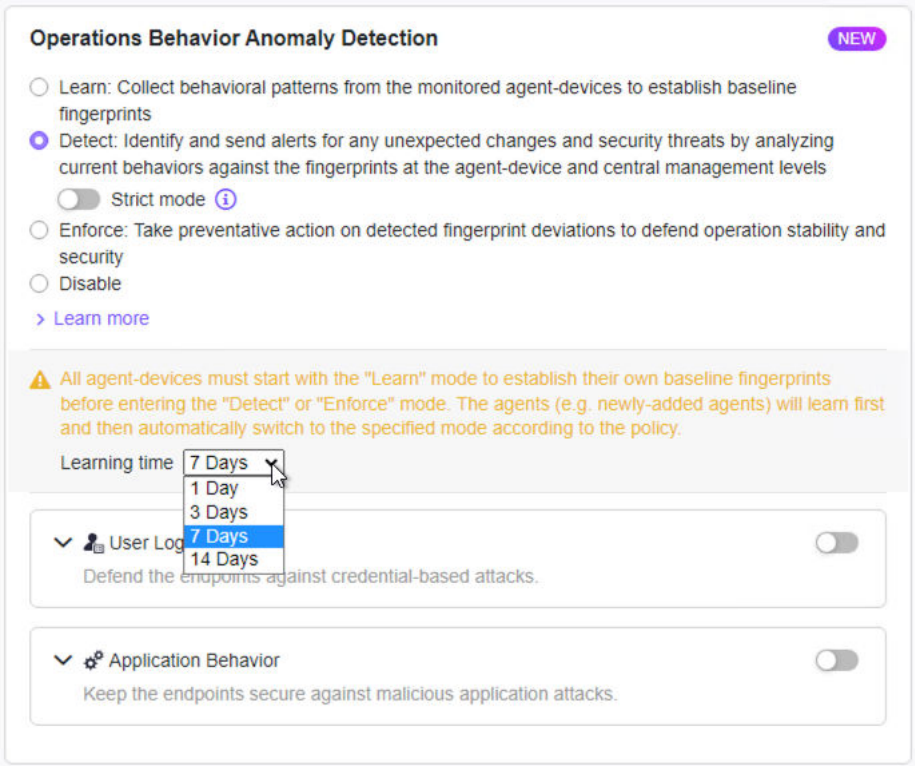


FIGURE 5-3. Operations Behavior Anomaly Detection for StellarProtect (Legacy Mode)

The **Operations Behavior Anomaly Detection** for StellarProtect (Legacy Mode) provides four normal modes for two pillars of protection. In addition, there is a special mode under two of the normal modes. For more information, please see the details below.

Four Normal Modes:

- **Learn**: In this mode, StellarProtect (Legacy Mode) collects behavioral patterns from the monitored agent-devices to establish baseline fingerprints.

Important

TXOne Networks recommends setting the target agents to the **Learn mode** first to establish their own baseline fingerprints before they can perform automated behavioral analysis in the **Detect** or **Enforce** mode. See *Operations Behavior Anomaly Detection for StellarProtect - Use Case on page 5-32* for more details.

- **Detect**: In this mode, StellarProtect (Legacy Mode) identifies and sends alerts for any unexpected changes and security threats by analyzing current behaviors against the fingerprints at the agent-device and central management levels.
  - **Strict mode**: This special mode appears when you select the **Detect** mode. Enabling the **Strict mode** reduces the level of the fingerprint deviation allowed; in other words, it performs stricter comparison between the established baseline and currently-running operational behaviors. In more dynamic operating environments where devices and access behaviors are more subject to change, this may generate more events.
- **Enforce**: In this mode, StellarProtect (Legacy Mode) takes preventative action on detected fingerprint deviations to defend operation stability and security.
  - **Strict mode**: This special mode appears when you select the **Enforce** mode. Enabling the **Strict mode** reduces the level of the fingerprint deviation allowed; in other words, it performs stricter comparison between the established baseline and currently-running operational behaviors. In more dynamic operating environments where devices and access behaviors are more subject to change, this may generate more events and require more preventative actions to be taken.
- **Disable**: The Operations Behavior Anomaly Detection can also be disabled if needed, but it is recommended to have this function enabled to maintain security against behavior anomalies.

Learning time:

When **Detect** or **Enforce** mode is selected, the **Learning time** option becomes available. You can specify the learning period for the target agents/ group from the **Learning time** menu. The agents that have not established their own baselines will then start learning and once the learning period ends, they will automatically switch to the predefined **Detect** or **Enforce** mode.

See *Setting the Learning Time on page 5-27* and *Setting the Learning Time - Use Case on page 5-29* for more information.

Two Pillars of Protection:

- **User Login**: Defends the endpoints against credential-based attacks when enabled. By comparing the list of user accounts and login activities in the baseline with those used for daily operations, unrecognized user accounts or unexpected login activities will be detected as anomalies and trigger incident notifications.
    - **Approved Login Accounts in Baseline**: Click this link to go to the **Situational Awareness** page for viewing the approved user accounts and relevant details stored in the baseline at the agent level. See *Approved Login Accounts on page 5-94* for more information
    - **Policy-based Approved Login Accounts**: Click this link to manually add approved user accounts and relevant details used in operations and processes to avoid false alerts. See *Policy-based Approved Login Accounts on page 5-31* for more information.
- **Application Behavior**: Safeguards the endpoints against malicious application attacks. By comparing the list of applications and application behaviors in the baseline with those running for daily operations, unrecognized applications or unexpected application behaviors will be detected as anomalies and trigger incident notifications.
    - **Approved Applications in Baseline**: Click this link to go to the **Situational Awareness** page for viewing the approved applications and relevant details stored in the baseline at the agent level. See *Approved Applications on page 5-95* for more information.
    - **Policy-based Approved Applications**: Click this link to manually add approved applications and relevant details used in operations

and processes to avoid false alerts. See *Policy-based Approved Applications on page 5-32* for more information.

The two pillars of protection can be individually toggled on for guarding separate vulnerability points, or you can choose to enable them all and set in the **Strict mode** for maximum defense.

Note

For more details on how the **Strict mode** works for the three pillars, see *Strict Mode on page 5-35* and *Strict Mode - Use Case on page 5-38*.

The following table illustrates how the two pillars work in the **Learn**, **Detect**, and **Enforce** modes.

TABLE 5-5. An example of how Operations Behavior Anomaly Detection works

OPERATIONS BEHAVIOR ANOMALY DETECTION	USER LOGIN	APPLICATION BEHAVIOR
Learn	Stores the login account listed below in the baseline: **For example:** • Username: `admin` • Domain: TXOne	Stores the application behavior listed below in the baseline: **For example:** • Application: TXOne StellarProtect Client • Behavior: 1
Detect	Sends events for the unexpected change: **For example:** Username: `admin1`	Sends events for the unexpected changes: **For example:** Behavior: 2
Enforce	Sends events for the unexpected change: **For example:** Username: `admin1`	Sends events for the unexpected changes: **For example:** Behavior: 2

Setting the Learning Time

When the **Detect** or **Enforce** mode of **Operations Behavior Anomaly Detection** is selected, the **Learning time** option becomes available. You can specify the learning period for the target agents/group from the **Learning time** menu. The agents that have not established their own baselines will then start learning and once the learning period ends, they will automatically switch to the predefined **Detect** or **Enforce** mode.

See the following instructions for how to set the learning time.

Procedure

1. Go to **Agents** > **Policy**, scroll down and find the **Operations Behavior Anomaly Detection** pane. Select **Detect** or **Enforce**.
2. The **Learning time** section appears.
3. Scroll down and determine which security pillars (**Scrip Behavior**, **User Login**, or **Application Behavior**) you want to enable. Ensure you toggle on at least one of them for the agent-device to establish the associated baseline.

   Note

   The three security pillars can be individually toggled on for guarding separate vulnerability points, or you can choose to enable them all for the complete protection.

4. Specify the learning period for the target agent-device from the **Learning time** menu.
5. A progress bar displaying how many days left for learning will appear on the **Agents** screen or the **General Info** page for the agent-device. See *About the Agents Screen on page 4-2* for more information.

Note

- The learning time counts only when the target agent-device is powered on.
- If you toggle on the security pillars separately, though the learning period is specified and fixed, the actual learning time displayed on the progress bar varies depending on when the last pillar is enabled. Besides, the agent switches to the predefined **Detect** or **Enforce** mode for the security pillars separately. See the following use case for more details.

Setting the Learning Time - Use Case

See the example below for how the learning time works if the security pillars are enabled separately.

Procedure

1. Three days ago, you've enabled the **Detect** mode for **Operations Behavior Anomaly Detection**, toggled on the **Scrip Behavior**, and set the **Learning time** to 3 days.
2. This morning, you enabled the **User Login** and then the agent started establishing the baseline of the approved login accounts.
3. If you had not enabled the **User Login** today, the learning progress bar displayed on the **Agents** screen should have disappeared and the status should have changed to **Detect**. However, the progress bar still exists because you enabled the **User Login** today (without changing the learning period, which was set to 3 days).
4. For now, the agent is multitasking for the **Operations Behavior Anomaly Detection** function:
   - The **Scrip Behavior** baseline has been established and the agent is actually detecting any anomalies now. You may find relevant events on the Agent Events.

- The agent is now establishing the **User Login** baseline. The learning progress bar on the **Agents** screen indicates there are 3 days left for learning before entering the **Detect** mode.

5. Moreover, if you changed the learning time to 7 days while enabling the **User Login** today, the agent would start updating the baseline for **Scrip Behavior**; on the other hand, it would start establishing the baseline for **User Login**. To elaborate, since the agent has already collected the script behaviors for 3 days, the actual learning time for **Scrip Behavior** was extended to 4 days only. As for the **User Login**, the actual learning time was set to 7 days.

Policy-based Watchlist and Approved Items

You can specify policy-based approved login accounts or applications to avoid false alerts at the agent or group level.

Related settings include:

- *Policy-based Approved Login Accounts on page 5-63*
- *Policy-based Approved Applications on page 5-64*

Policy-based Approved Login Accounts

You can manually add approved user accounts and relevant details used in operations and processes into the **Policy-based Approved Login Accounts** to avoid false alerts.

See the following instructions for how to add the approved user accounts to the **Policy-based Approved Login Accounts**.

Procedure

1. Go to **Agents** > **Policy**, scroll down and find the **Operations Behavior Anomaly Detection** pane. Select **Operations Behavior Anomaly Detection Learn**, **Detect**, or **Enforce**.
2. Toggle on the **User Login**.
3. Click **User Login** to expand this section.

4. Find and click the **Policy-based Approved Login Accounts**.
5. Click **+Add** and then specify the user account and relevant information.
6. Click **Add** to add the approved user account.
7. Click **Close** to close the window.

Tip

To delete the added user accounts one by one, click the Delete icon in the **Actions** column; to delete multiple user accounts, click the checkboxes next to them and then click **Delete** > **Confirm**.

Policy-based Approved Applications

You can manually add approved applications used in operations and processes into the **Policy-based Approved Applications** to avoid false alerts.

See the following instructions for how to add the approved applications to the **Policy-based Approved Applications**.

Procedure

1. Go to **Agents** > **Policy**, scroll down and find the **Operations Behavior Anomaly Detection** pane. Select **Operations Behavior Anomaly Detection Learn**, **Detect**, or **Enforce**.
2. Toggle on the **Application Behavior**.
3. Click **Application Behavior** to expand this section.
4. Find and click the **Policy-based Approved Applications**.
5. Click **+Add** and then specify the path to the application and relevant information.
6. Click **Add** to add the approved application.
7. Click **Close** to close the window.

Tip

To delete the added applications one by one, click the Delete icon in the **Actions** column; to delete multiple user accounts, click the checkboxes next to them and then click **Delete** > **Confirm**.

Operations Behavior Anomaly Detection for StellarProtect (Legacy Mode) - Use Case

The **Operations Behavior Anomaly Detection** embodies the CPSDR concept and has a deep understanding of what the expected behaviors for each device are from learning the behaviors of each agent-device first. Every agent continuously analyzes its host device to establish and maintain a unique baseline fingerprint. Then in real-time, unexpected behaviors and deviations from this fingerprint can be detected at the individual agent level and then secondarily at the centralized control level to inform wider instability issues and prompt preventative actions.

See the following procedures as the recommended practice when you start using the **Operations Behavior Anomaly Detection**:

Procedure

1. Toggle on the **Learn** mode of the **Operations Behavior Anomaly Detection** on the Policy page. Ensure that you toggle on the **User Login** and **Application Behavior** as well.
2. Deploy all the required configuration, features, updates, or fixes, and run all the daily operation processes during the **Learn** mode.

Note

If the Application Lockdown is enabled, ensure you turn on the maintennace mode when performing these deployments.

   a. Toggle on the **User Login**:

      1. Use the required user accounts to log into the agent-device.

2. Ensure you also log in from different IP addresses or domains if it is required during your daily operation processes.

Note

You can also manually add approved user accounts and relevant details used in the operations and processes into the **Policy-based Approved Login Accounts**.

b. Toggle on the **Application Behaviors**:

- Run the applications required for daily operation processes.
- Download required applications or execute updates or fixes required for existing applications on the agent-device.

Note

You can also manually add approved applications used in the operations and processes into the **Policy-based Approved Applications**.

3. Switch to the **Detect** mode for a few days and check if any events will be triggered by the normal daily operations.

Note

- You can check the Agent event logs to see if there's any anomalous operation or process detected. See *Agent Events on page 7-2* for more details.
- See *Strict Mode on page 5-35* for more details on using the **Strict mode**.

Strict Mode

The **Strict mode** under the **Detect** or **Enforce** mode is used for stronger threat protection. Enabling **Strict mode** reduces the level of baseline fingerprint deviation allowed; in other words, it performs stricter

comparison between the established baseline and currently-running operational behaviors.

Note

In more dynamic processes where devices and access behaviors are more subject to change, this may generate more events.

To enable **Strict mode**, set the **Operations Behavior Anomaly Detection** to **Detect** or **Enforce** mode, and then toggle on specifc pillars of protection for guarding separate vulnerability points or simply enable them all for maximum defense.

User Login: In the **Strict mode**, the user accounts and the login activities must exactly match the approved user accounts stored in the baseline; otherwise, events will be generated.

Application Behavior: In the **Strict mode**, the application behaviors must exactly match the approved application behaviors stored in the baseline; otherwise, events will be generated.

Sizing Table - 2nd Disk Space Requirement

The StellarOne requires an external disk for storing system configurations and event logs. To ensure the storage requirement for the agent baselines is fulfilled, see the following tables for the required external disk space depending on the number of the installed agents.

Table 5-6. Sizing Table for StellarOne deployed on VMware

Max. No. of Agents	Min No. of vCores	Memory Size	1st HDD Space	2nd HDD Space (Recommended)	2nd HDD Space required when Operations Behavior Anomaly Detection enabled
30,000	8	32 GB	25 GB	100 GB	475 GB
20,000	8	16 GB		100 GB	350 GB
15,000	4	16 GB		50 GB	250 GB
10,000	4	16 GB		50 GB	175 GB
5,000	4	12 GB		50 GB	125 GB
1,000	4	12 GB		50 GB	70 GB
500	4	12 GB		50 GB	60 GB

Table 5-7. Sizing Table for StellarOne deployed on Hyper-V

Max. No. of Agents	Min. No. of CPU	Memory Size	1st HDD Space	2nd HDD Space (Recommended)	2nd HDD Space required when Operations Behavior Anomaly Detection enabled
30,000	10	24 GB	25 GB	100 GB	475 GB
20,000	8	16 GB		100 GB	350 GB
15,000	8	16 GB		50 GB	250 GB
10,000	8	16 GB		50 GB	175 GB

Max. No. of Agents	Min. No. of CPU	Memory Size	1st HDD Space	2nd HDD Space (Recommended)	2nd HDD Space required when Operations Behavior Anomaly Detection enabled
5,000	8	16 GB		50 GB	125 GB
1,000	4	16 GB		50 GB	70 GB
500	4	8 GB		50 GB	60 GB

Exclusions Settings

The Lockdown Exclusions allows users to define trusted certificates, trusted hash values, exception paths, and write protecion list. The trusted certificates defined by users will be bypassed during scanning and will not be blocked by **Application Lockdown**. Meanwhile, the trusted hash values, exception paths, and write protecion allows users to configure lockdown exclusion settings for the Approved List.

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

   Note

   For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Scroll down and go to the **Exclusions** section.
4. Configure the **Exclusions** by Import/Export Exclusions for **Trusted Certificates** and **Trusted Hash Values**:

5. Manually add lockdown exclusion lists for **Trusted Hash Values**, **Exception Paths**, and **Write Protection**:

   - For adding exception paths:

     a. Click the **+Add** button, and then a pop-up window appears.

     b. Select among **Folder**, **File**, or **Regular Expression** and input the required information in the corresponding text field.

     Note

     Supports only the real path and hardlink path.

     c. Click **Add** to complete adding the exception paths for the Approved List.

   - For editing existing exception paths:

     a. Find the exception path to be edited and click the corresponding Edit icon under the **Actions** header.

     b. A pop-up window appears. Select among **Folder**, **File**, or **Regular Expression** and edit in the corresponding text field.

     c. Click **Save** to complete editing the exception paths for the Approved List.

   - For deleting multiple existing exception paths:

     a. Click the checkboxes next to the existing exception paths.

     b. Click the **Delete** button next to the **+Add** button.

     c. A warning message window appears. Click **Confirm** to delete the selected items.

   - For deleting single existing exception path:

     a. Find the exception path to be deleted and click the corresponding Delete icon under the **Actions** header.

b. A warning message window appears. Click **Confirm** to delete the selected item.

Export/Import Exclusions Settings

Exporting and importing exclusions settings allow you to move StellarProtect (Legacy Mode)'s hash values, trusted certificates, exception paths, and write protection settings from one group to another.

Tip

It is recommended to refer to the sections below for configuring the **Trusted Certificates**, **Trusted Hash Values**, **Exception Paths,** and **Write Protection** settings first, and then export the exclusions configuration file from the agent as an template to modify (if needed) and import it to a batch of target agents/ groups.

Trusted Certificates Settings

Similar to hash values, trusted certificates are made by the application vendors or organizations to allow StellarProtect (Legacy Mode) to know which applications are trustworthy. **Trusted Certificates** provides an import function allowing the administrator to add new trusted certificates. The trusted certificates defined by users and the corresponding applications will be bypassed during scanning and will not be blocked by Application Lockdown.

Import Trusted Certificates

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Go to the **Exclusions** pane.
4. Find **Trusted Certificates** section and then Click **Import**.
5. The **Import Trusted Certificate** window appears. Click **Select File** to import the target certificate.
6. Enable the **Installer** toggle switch to automatically add all files created or modified by the trusted installer to the Approved List.

Note

By default, the **Installer** toggle is turned off.

7. Click **Import** to add the trusted certificate and the settings will be saved.

Delete Trusted Certificates

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Go to the **Exclusions** pane.
4. Find **Trusted Certificates** section and select the trusted certificates to be removed.

5. Click the **Delete** button and the **Remove Trusted Certificate** dialog window will appear.
6. Click **Confirm** to remove the selected entries.

Exception Paths Settings

Exception paths are used to point StellarProtect (Legacy Mode) to your file or file folder directly so that it can approve the file's execution.

Add a File, Folder, or Regular Expression as an Exception Path

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Find the **Exception Paths** section from the **Exclusions** pane.
4. Click the **Add** button and the **Add Exception Path** dialog window will appear.
5. Select one of the exception types: **File**, **Folder**, or **Regular Expression**.
6. Input the file system path for your exception.
7. Click the **Add** button to add a single exception path and the settings will be saved.

Edit Exception Path

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Find the **Exception Paths** section from the **Exclusions** pane.
4. Check the check box next to the exception path you want to edit.
5. Click the **Edit** button and the **Add Exception Path** dialog window will appear.
6. After modification, click the **Save** button to save the settings.

Remove Exception Path

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Find the **Exception Paths** section from the **Exclusions** pane.
4. Check the check box next to the Exception Path you want to remove.

5. Click the **Delete** button and the **Remove Exception Path** dialog window will appear.
6. Click the **Confirm** button to remove the selected entries.

Trusted Hash Values Settings

When **Application Lockdown** is enabled, the Agent will only be able to access applications that are in the Approved List. Use hash values to remotely allow applications and files to run on managed endpoints.

Calculate Hash Values

Use **File Hash Generator** to calculate hash values before adding trusted hash values.

Procedure

1. Find and click the **Trusted Hash Values** in the **Exclusions** pane.
2. Download the **File Hash Generator** tool from the **Trusted Hash Values** area.
3. Execute `WKFileHashGen.exe` from the downloaded folder. The **File Hash Generator** screen will appear.
4. Use any of the following methods to select files and calculate hash values:
   - Drag and drop folders or files to the **File Hash Generator** screen.
   - Click the drop-down button and click **Add Files** to select the files to add.
   - Click the drop-down button and click **Add Folder** to add all the files in the selected folder.

Tip

Only executable, script, and installer files are supported. Mouse over the **Supported file types** for more details.

Note

Hash values will appear in the SHA-1 and SHA-256 columns.

5. For a single file, right-click the item and select **Copy SHA-1** or **Copy SHA-256**. For multiple files, click **Export All** to generate a list of hash values

Note

- To ensure that all necessary files are calculated for hash values, TXOne Networks suggests adding the root folder of the target application to the **File Hash Generator** for calculation.
- By clicking the **Add Folder** button, only the installer files, script files, and files in the PE (Portable Executable) format will be calculated.
- For the single hash value, see *Add Trusted Hash Values on page 5-76* for how to add the copied hash value to the trusted hash value list.
- For multiple hash values, see *Import Trusted Hash Values on page 5-77* for how to import the file containing the hash values to the trusted hash value list.

6. Click **Exit** to close the tool.

Add Trusted Hash Values

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Find and click the **Trusted Hash Values** in the **Exclusions** pane.
4. Click the **Add** button and fill in the hash values and notes.
5. Enable the **Installer** toggle switch to automatically add all files created or modified by the trusted installer to the Approved List.

Import Trusted Hash Values

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Find and click the **Trusted Hash Values** in the **Exclusions** pane.
4. Click the **Import** button to import the `.txt` file containing a batch of hash values.

Note

See *Calculate Hash Values on page 5-75* for generating the file containing the list of multiple hash values

5. Enable the **Installer** toggle switches to automatically add all files created or modified by the trusted installer to the Approved List.

Edit Trusted Hash Values

Procedure

1. Go to **Agents** > **All**.

2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Find and click the **Trusted Hash Values** in the **Exclusions** pane.
4. Find the trusted hash value to be edited and click the corresponding Edit icon in the **Actions** column.
5. The **Edit Trusted Hash Value** dialog window appears.
6. After modification, click the **Save** button to complete the settings.

Note

Enable the **Installer** toggle switches to automatically add all files created or modified by the trusted installer to the Approved List.

Remove Trusted Hash Values

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Find and click the **Trusted Hash Values** in the **Exclusions** pane.
4. To delete multiple existing trusted hash values:

a. Click the checkboxes next to the existing trusted hash values.

b. Click the **Delete** button next to the **Import** button.

c. A warning message window appears. Click **Confirm** to delete the selected items.

5. To delete single existing trusted hash values:

a. Find the trusted hash value to be deleted and click the corresponding Delete icon in the **Actions** column.

b. A warning message window appears. Click **Confirm** to delete the selected item.

Write Protection Settings

Write protection allows you to protect the details in certain files or folders from being changed by unauthorized users or applications.

Add a File, Folder, Registry Key, or Registry Key and Value to Write Protection

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Find the **Write Protection** section from the **Exclusions** pane.
4. Click the **Add** button and the **Add Write Protection** dialog window will appear.
5. Select one of the protection types: **File**, **Folder**, **Registry Key** or **Registry Key and Value**.

6. Input the path to the target object to be write protected.
7. Set the **Exception Process Type**.
   - No processes can write
   - All processes can write
   - Specify a process that can write by inputing the path.
8. Click the **Add** button and the settings will be saved.

Edit Write Protection

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

   Note

   For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.
3. Find the **Write Protection** section from the **Exclusions** pane.
4. Check the check box next to the protection type you want to edit.
5. Click the **Edit** button and the **Add Write Protection** dialog window will appear.
6. After modification, click the **Save** button to save the settings.

Remove Write Protection

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

Note

For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Find the **Write Protection** section from the **Exclusions** pane.
4. Check the check box next to the protection type you want to remove.
5. Click the **Delete** button and the **Remove Write Protection** dialog window will appear.
6. Click the **Confirm** button to remove the selected entries.

Other Policy Settings for StellarProtect/StellarProtect (Legacy Mode)

Other policy settings for StellarProtect/StellarProtect (Legacy Mode) agent include:

- *Agent Component Update Schedule on page 5-81*
- *Device Control on page 5-83*
- *User-Defined Suspicious Objects on page 5-86*
- *Agent Password on page 5-87*
- *Patch on page 5-88*

Agent Component Update Schedule

You can configure the component update schedule for the agents via the StellarOne web console; thus the system can run component update automatically at the assigned time frequency.

Note

StellarOEM license edition does not support this function.

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

   Note

   For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. On the **Policy** page, find the **Schedule Update** in the **Agent Component Update Schedule** pane.
4. (Optional) Click **Go to StellarOne Scan Component Update Schedule** and view the current settings of StellarOne's component update schedule.

   Tip

   You can determine the agent's component update schedule by referring to the StellarOne console's component update schedule first.

   Note

   Only users logged in with administrator or operator account can edit StellarOne component update schedule.

5. Toggle on the **Schedule Update**. Radio buttons for setting the **Frequency** and **Start Time** appear.
   - Click **Daily** to perform the agent component update every day
   - Click **Weekly** to perform the agent component update every week

     Note

     The default setting for **Weekly** update is **every Sunday**.

- Click **Monthly** to perform the agent component update every month

Note

The default setting for **Monthly** update is **on day 01**.

Important

Since not every month contains the date 29th, 30th, or 31st, e.g., February only has 28 days (29 days on a leap year), TXOne Networks recommends selecting **The last day of the month** for monthly update frequency. This helps prevent the system from bypassing the update in the month that does not contain the date 29th, 30th, or 31st.

6. Click **Start Time** to specify the exact time to perform the agent component update based on the defined frequency.

- 

Note

The default setting for **Start Time** is **00:00**.

Device Control

StellarProtect/StellarProtect (Legacy Mode) agent supports one-time USB access permission on site; while StellarOne console offers permanent USB access permission via remote configuration.

For the local agent, when USB device control has been enabled, every time users plug in USB devices, the agent will prompt a message for users to confirm if the USB device access is allowed. On top of that, StellarOne users with administrator or operator privilege can add trusted USB devices into the **Device Control** list, allowing the specified devices to access directly without further check, thus facilitating the trusted USB access for good.

Note

In addition to USB drives, StellarProtect (Legacy Mode) also supports blocking CD/DVD drives and floppy disks on managed endpoints.

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

   Note

   For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Make sure the **Device Control** toggle is switched on.
4. Click **Add**. The **Add Trusted USB Device** window appears.
5. Specify at least one of the following information for the trusted USB device.
   - **Vendor ID**
   - **Product ID**
   - **Serial number**
6. Click **OK** to complete the setting.
7. Check if the USB device is successfully added in the device control list.
8. (Optional) To edit the USB device information, select the USB device and click the edit icon in the **Actions** column. A pop-up window appears. Edit the USB device information in the related text fields and then click **OK**.
9. (Optional) To remove a USB device from trusted list, choose either way listed below.
   - For removing multiple USB devices at the same time, select the USB devices and click the **Delete** button next to the **+Add** button.
   - For removing only one USB devices, click the Delete icon in the **Actions** column.

A pop-up **Notification** window appears. Click **Confirm** to delete the USB device(s).

Get Device Information

To get Device Information, use one of the following methods:

- Open the **Device Manager** on the endpoint.
- For StellarProtect (Legacy Mode) agent, use the `SLCmd.exe` command on the endpoint. Refer to StellarProtect (Legacy Mode) Administrator's Guide for more details.
- On StellarOne, go to the **Logs** > **Agent Events** on StellarOne console to check the event details about removable devices with Agent Event ID 1281/1282 (StellarProtect) or 5000/5001 (StellarProtect (Legacy Mode)).

For StellarProtect (Legacy Mode) agent, you can view the list of trusted USB devices on an endpoint by exporting the agent settings. To manually configure the trusted USB device list on an endpoint, do one of the following:

- Export the agent's settings, make changes, and then import the modified settings back to the agent via StellarOne
- Import an updated settings file via StellarOne
- Use the `SLCmd.exe` command on the StellarProtect (Legacy Mode) agent

Edit/Add/Remove Trusted USB Devices by Importing Configuration File

Procedure

1. Go to **Agents** > **All**.
2. Click the **All** group on the **Agents** screen. The **Agents** screen displays a list of agents managed by StellarOne.
3. Select the target agent by clicking the checkbox next to it.
4. Click the **Import/Export** button from the Tool Bar at the top of the **Agents** screen.

5. Click the **Export Agent Configuration** option.
6. Click **Confirm**.
7. A pop-up **Command Deployment** window appears. The **Status** shows if the agent configuration is exported successfully.
8. Click the **Download** link to download the target agent's configuration file.
9. Open the agent configuration file in a text editor and find the `DeviceException` section.

```
<StorageDeviceBlocking Enable="no" ActionMode="1" AllowNonMassStorageUSBDevice="no">
    <DeviceException>
        <DeviceGroup name="UserDefined"/>
    </DeviceException>
</StorageDeviceBlocking>
```

FIGURE 5-4. DeviceException section

10. The following figure shows an example where the section contains two entries for the added trusted USB devices.

```
<StorageDeviceBlocking Enable="no" ActionMode="1" AllowNonMassStorageUSBDevice="no">
    <DeviceException>
        <DeviceGroup name="UserDefined">
            <Device vid="781" pid="5151" sn="2444130A5442A4F5"/>
            <Device vid="951" pid="1666" sn="E03F49AEC0DDF351E913003F"/>
        </DeviceGroup>
    </DeviceException>
</StorageDeviceBlocking>
```

FIGURE 5-5. Devices added in DeviceException section

11. You can edit, add, or remove the trusted USB devices by modifying, adding, or deleting the entries for the trusted USB devices and save the agent configuration file.
12. Import the updated agent configuration file to the target agents.

User-Defined Suspicious Objects

The **User-Defined Suspicious Object** allows users to manually add the file hashes (SHA-1 or SHA-2) or paths of new IOC (Indicators of Compromise)

into the blocked-file list, which prevents all managed endpoints from being infected by the malicious files.

Note

The StellarProtect (Legacy Mode) only supports SHA-1 file hash.

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

   Note

   For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.
3. Find the **User-Defined Suspicious Object** at the right side of the screen.
4. Click **Add**. The **Add Item to User-Defined Suspicious Objects** window appears.
5. Select **Hash** or **File Path** as the suspicious file type.
6. Specify the file hash or path in the corresponding text field.
7. (Optional) Specify notes in the **Notes** text field.
8. Click **OK** to complete this task.
9. (Optional) To remove a user-defined suspicious object, select the target hash/file path and click the **Delete** button next to the **+Add** button.
10. A pop-up **Notification** window appears. Click **Confirm** to delete the selected item.

Agent Password

This function allows StellarOne administrators to remotely change the Agent's Administrator or User password required for logging on the

StellarProtect/StellarProtect (Legacy Mode) local consoles. It does not require the old agent password to create a new one.

Note

This function is only available for users with privileges of Admins or Operators.

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

   Note

   For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.
3. Scroll down and find the **Agent Password** at the right side of the screen.
4. Select the **ADMINISTRATOR** or **USER** tab.
5. Input the new password twice and click **Save** to finish this policy setting.

   Note

   - The password must be 8 to 64 alphanumeric characters. The following characters are not supported: | > " : < \ spaces
   - If the group/agent policy has been changed to customized, make sure you reset the agent password for better password management.

Patch

The **Patch** function allows the administrator to deploy a patch file upgrade on all agents under the same group policy. The patching process can be conducted remotely and automatically using policy synchronization. Only

one patch file (Agent version) is allowed to be upgraded each time under each group policy.

Important

A patch is generally used to fix or enhance the current version. If you accidentally patch an older version, the patch deployment should not work and the agent status will keep un-synced with the StellarOne console. Meanwhile, other policy settings can't be deployed, either. After 20 minutes the agents will resynchronize with StellarOne; until then can the policy settings be applied to the agent.

Procedure

1. Go to **Agents** > **All**.
2. Navigate to the target agent or group, and then go to its **Policy** page.

   Note

   For instructions on how to go to the **Policy** page, see *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group of agents.

3. Scroll down and find the **Patch** at the bottom right corner of the screen.
4. Click the checkbox next to the version of the patch file for deployment.

   Note

   Users can import new patches for the agent on the *Importing/Deleting Agent's Patch on page 8-24* page.

5. The selected patch file will be deployed on the agents under the same group policy.

Note

Since StellarOne can apply global policy to all managed agents or certain group policies to group-owned endpoints for conducting the patching process on multiple devices at the same time, before you select agent version, please be aware that:

- By default, the global policy should be applied to every agent. TXOne Networks suggests that you keep lower agent version in the global policy settings.
- If you don't want to set any agent version for patch deployment, please uncheck all checkboxes next to the agent version patch files in the **Patch** pane.

Important

StellarProtect Agent 1.0 does not support remote patch because it does not have any available remote patch files.

Situational Awareness

The Situational Awareness page displays a unique baseline fingerprint of each agent-device, which is generated via TXOne cyber-physical system (CPS) detection methods.

Topics in this section include:

- *Situational Awareness for StellarProtect on page 5-90*
- *Situational Awareness for StellarProtect (Legacy Mode) on page 5-97*

Situational Awareness for StellarProtect

The StellarProtect **Situational Awareness** page displays the baseline fingerprint at the agent level.

Note

The baseline data are transmitted at the default or specified policy refresh interval. See *Set Policy Refresh Interval on page 5-6* for more information.

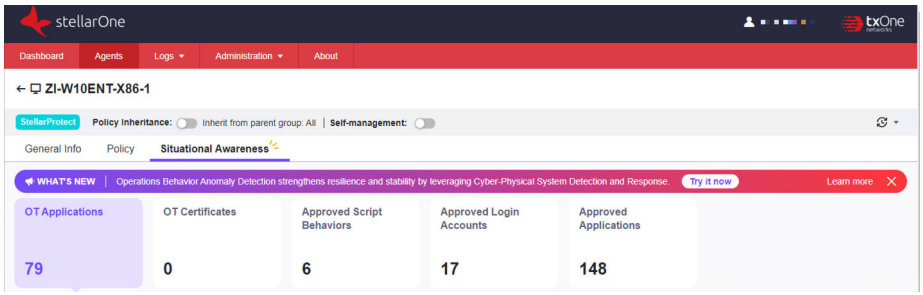


FIGURE 5-6. StellarProtect Situational Awareness Page

See the following table for more details about this page.

TABLE 5-8. About the StellarProtect Situational Awareness Page

ITEM	DESCRIPTION
OT Applications	Upon launch, StellarProtect will auto-detect currently-installed OT applications and put them under protection. The recognized OT applications will be shown on the **Situational Awareness** tab page. See *OT Application Safeguard on page 5-43* for more information.
OT Certificates	Upon launch and running pre-scan during the agent installation, StellarProtect will auto-detect currently-accepted OT certificates. The recognized OT certificates will be shown on the **Situational Awareness** tab page.
Approved Script Behaviors	Once you enable the **Script Behavior** of the **Operations Behavior Anomaly Detection**, the agent automatically learns and allows the approved scripts to run on the endpoints. See *Approved Script Behaviors on page 5-92* for more details.

Item	Description
Approved Login Accounts	Once you enable the **User Login** of the **Operations Behavior Anomaly Detection**, the agent automatically learns and allows the approved user accounts and related login behaviors to run on the endpoints. See *Approved Login Accounts on page 5-94* for more details.
Approved Applications	Once you enable the **Application Behavior** of the **Operations Behavior Anomaly Detection**, the agent automatically learns and allows the approved applications to run on the endpoints. See *Approved Applications on page 5-95* for more information.

For more details about the **Approved Script Behaviors**, **Approved Login Accounts**, and **Approved Applications**, see *Operations Behavior Anomaly Detection for StellarProtect on page 5-21* for more details

Approved Script Behaviors

If you enable the **Operations Behavior Anomaly Detection** > **Script Behavior** function, script behaviors found on the StellarProtect agent-device will be added to its baseline and displayed on the **Situaional Awareness** > **Approved Script Behaviors** page. See the following table for more information about the **Approved Script Behaviors** page.

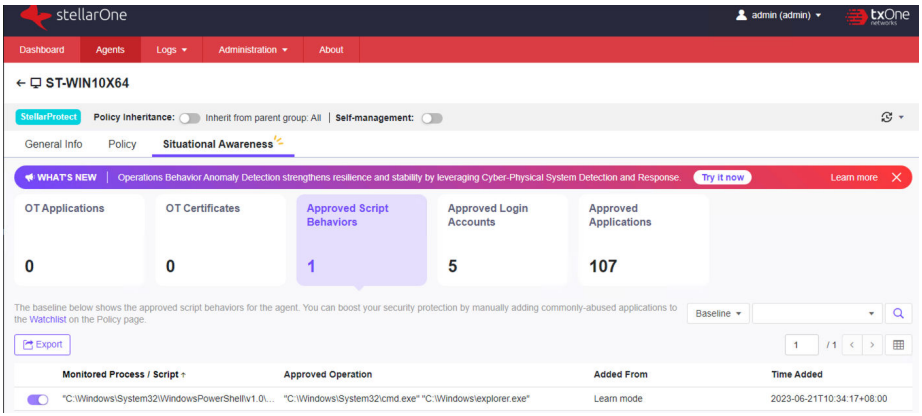


TABLE 5-9. About the Situaional Awareness > Approved Script Behaviors Page

ITEM	DESCRIPTION
Toggle	Allows you to determine if you want to include specific approved script behaviors in the baseline. If you turn the toggle off, the target script behaviors will be viewed as unexpected changes; alerts or preventative actions will be triggered depending on the selected **Operations Behavior Anomaly Detection** mode: • In **Detect** mode: relevant events will be generated. • In **Enforce** mode: target script behaviors will be blocked.
Monitored Process	Displays the monitored operation process containing certain applications and acompanied parameters. By default, StellarProtect monitored 5 applications as listed below. You can also specify other commonly-abused applications in the **Operations Behavior Anomaly Detection** > **Watchlist**. • `powershell.exe` • `wscript.exe` • `cscript.exe` • `mshta.exe` • `psexec.exe` See *Policy-based Watchlist on page 5-30* for more details.
Approved Script Behaviors	Displays the approved script behaviors stored in the baseline. The script behaviors can be viewed as the full execution process for triggering the monitored process mentioned above. See *Operations Behavior Anomaly Detection for StellarProtect on page 5-21* for more details.
Added From	Displays the sources the approved script behaviors are added from: • Learn mode: the approved script behaviors have been detected and added to the baseline during **Operations Behavior Anomaly Detection** Learn mode. • Event action: the approved script behaviors have been added to the baseline by StellarOne administrator manually from the agent events (by clicking the **Add to Baseline** action button). See *Add to Baseline on page 7-7* for more details.

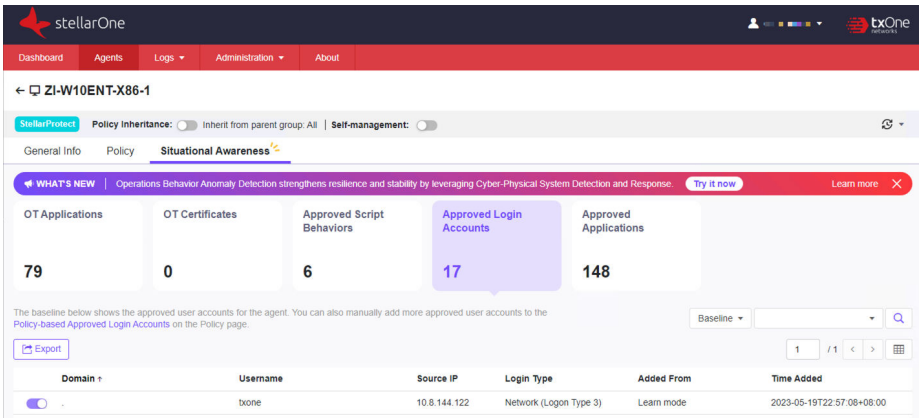
Item	Description
Time Added	Displays the time when the approved script behaviors were added to the baseline.

Note

TXOne Networks recommendeds switching back to **Operations Behavior Anomaly Detection Learn** mode before adding new or modifying existing script behaviors.

Approved Login Accounts

If you enable the **Operations Behavior Anomaly Detection** > **User Login** function, user accounts and related login activities found on the StellarProtect agent-device will be added to its baseline and displayed on the **Situaional Awareness** > **Approved Login Accounts** page.



See the following table for more details about the **Approved Login Accounts** page.

TABLE 5-10. About the Situaional Awareness > Approved Login Accounts Page

ITEM	DESCRIPTION
Toggle	Allows you to determine if you want to include the approved applications in the baseline. If you turn it off, the running of the corresponding application will be viewed as unexpected changes and relevant events will be generated.
Domain	Displays the approved domains for the user to log in from.
Username	Displays the approved usernames stored in the baseline.
Source IP	Displays the approved IP addresses for the user to log in from.
Login Type	Displays the approved login type stored in the baseline.
Added From	Displays the sources the approved applications are added from: • Learn mode: the approved applications have been detected and added to the baseline during **Operations Behavior Anomaly Detection** Learn mode. • Event action: the approved applications have been added to the baseline by StellarOne administrator manually from the agent events (by clicking the **Add to Baseline** action button). See *Add to Baseline on page 7-7* for more details.
Time Added	Displays the time when the approved applications were added to the baseline.

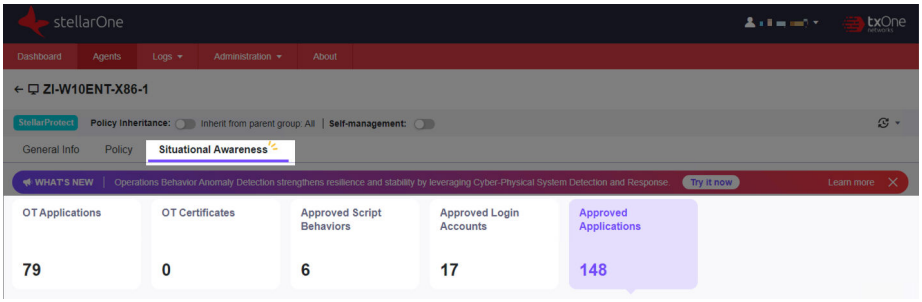
Note

TXOne Networks recommendeds switching back to **Operations Behavior Anomaly Detection Learn** mode before adding new or modifying existing user accounts.

Approved Applications

If you enable the **Operations Behavior Anomaly Detection** > **Application Behavior** function, applications found on the StellarProtect agent-device will

be added to its baseline and displayed on the **Situaional Awareness** > **Approved Applications** page.



See the following table for more details about the **Approved Applications** page.

TABLE 5-11. About the Situaional Awareness > Approved Applications Page

ITEM	DESCRIPTION
Toggle	Allows you to determine if you want to include the approved applications in the baseline. If you turn it off, the running of the corresponding application will be viewed as unexpected changes and relevant events will be generated.
Application	Displays the product name of the approved application stored in the baseline.
Size	Displays the size of the approved application.
SHA-1	Displays the SHA-1 file hash value of the approved application
SHA-256	Displays the SHA-256 file hash value of the approved application
path	Displays the file path to the approved application
Version	Displays the version of the approved application when it was added to the baseline

Item	Description
Added From	Displays the sources the approved applications are added from: • Learn mode: the approved applications have been detected and added to the baseline during **Operations Behavior Anomaly Detection** "Learn" mode. • Event action: the approved applications have been added to the baseline by StellarOne administrator manually from the agent events (by clicking the **Add to Baseline** action button). See *Add to Baseline on page 7-7* for more details. **Note** • If the approved applications are added during the "Learn" mode, the agent learns not only the applications but also the relevant behaviors; different application behaviors may be detected as anomalies. • If the approved applications are added from the event action "**Add to Baseline**", the applications will be viewed as "exceptions" and relevant behavior changes will be treated as acceptable.
Time Added	Displays the time when the approved applications were added to the baseline.

Note

TXOne Networks recommendeds switching back to **Operations Behavior Anomaly Detection Learn** mode before running the application updates.

Situational Awareness for StellarProtect (Legacy Mode)

The StellarProtect (Legacy Mode) **Situational Awareness** page displays the baseline fingerprint at the agent level.

Note

The baseline data are transmitted at the default or specified policy refresh interval. See *Set Policy Refresh Interval on page 5-6* for more information.

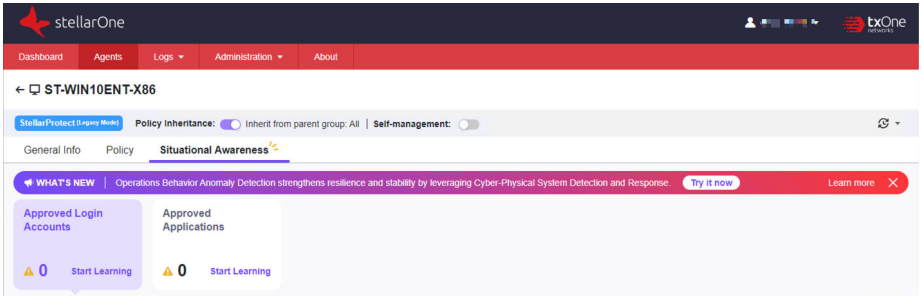


FIGURE 5-7. StellarProtect (Legacy Mode) Situational Awareness Page

See the following table for more details about this page.

TABLE 5-12. About the StellarProtect (Legacy Mode) Situational Awareness Page

ITEM	DESCRIPTION
Approved Login Accounts	Once you enable the **User Login** of the **Operations Behavior Anomaly Detection**, the agent automatically learns and allows the approved user accounts and related login behaviors to run on the endpoints.
Approved Applications	Once you enable the **Application Behavior** of the **Operations Behavior Anomaly Detection**, the agent automatically learns and allows the approved applications to run on the endpoints.

For more details about the, **Approved Login Accounts**, and **Approved Applications**, see *Operations Behavior Anomaly Detection for StellarProtect (Legacy Mode) on page 5-56* for more details

Chapter 6

Group Policy Settings

The StellarOne console combines agents management and policy deployment by allowing you to organize agents into various groups, build up multi-level hierarchy among the groups, and deploy different policies to different groups when needed.

Two types of policy management are available for choice:

- Policy **Inherited**: The group policy is inherited from the parent group
- Policy **Customized**: The group policy is customized for specific groups by the StellarOne administrators

---

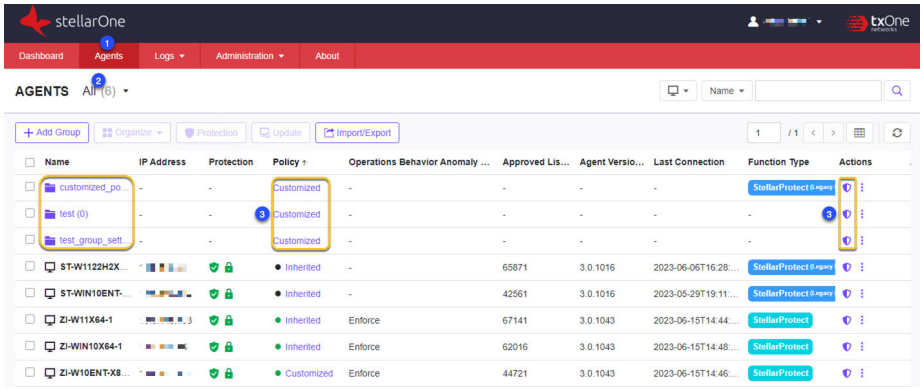
Note

Self-managed: This special policy setting allows local agents to be free from StellarOne's policy management and instead, to be managed directly by the on-site operators. Though it's a policy setting, once enabled, the **Self-managed** status will be shown in the **Policy** column on the **Agents** screen.

Topics in this chapter include:

- *Set Policy Refresh Interval on page 5-6*

Go to the Group Policy Screen



Procedure

1. Click the **Agents** tab in the top navigation bar of the StellarOne web console.
2. Click the **All** group, and then a screen displays the second level of groups/agents managed by StellarOne.
3. Navigate to the target group. Choose one of the ways to go to the group policy configuration page.
   - Click the link (**Inherited**, **Customized**, or **Self-managed**) in the **Policy** column.
   - Click the Policy icon in the **Actions** column, and then click the **Policy** tab.
4. The **Policy** screen appears.

Note

You can also click the Policy icon of the **All** group to check its policy settings.

Options Available on the Group Policy Screen

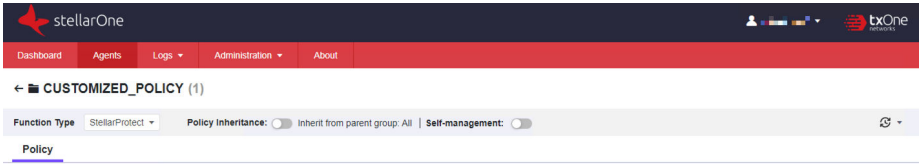


FIGURE 6-1. Switch Options of the Group Policy Screen

OPTIONS	DESCRIPTION
Function Type	The dropdown button next to the **Function Type** allows you to switch between **StellarProtect** and **StellarProtect (Legacy Mode)**.
Policy Inheritance	The toggle button allows you to enable or disable the group policy inheritance from the parent group. If the toggle is on, policy settings for the agent/group are inherited from the parent group; otherwise, policy settings for the agent/group are customized by the server administrators. **Note** When the toggle is on or off, the **Inherited** or **Customized** status will be displayed in the **Policy Inheritance** column on the **Agents** screen.
Self-management	The toggle button allows you to enable or disable the agent's self-managementl. When the toggle is on, the agent will be set free from StellarOne console's policy management and the on-site operators can configure the agent's policy settings on their own.
Policy	The tab page displays the Policy settings at the group level.
 Set policy refresh interval	This button allows you to specify how often the StellarOne policy and the Situational Awareness data sync are applied to the agent/group. See *Set Policy Refresh Interval on page 5-6* for more details.

Group Policy Settings

Unlike the agent policy page, the group policy configuration page allows you to manage policy at the group level. Also, the group policy page displays information at the group level, so some links for directing users to the **General Info** or **Situational Awareness** at the agent level are not available.

The following image shows the differences between the agent and group policy pages:

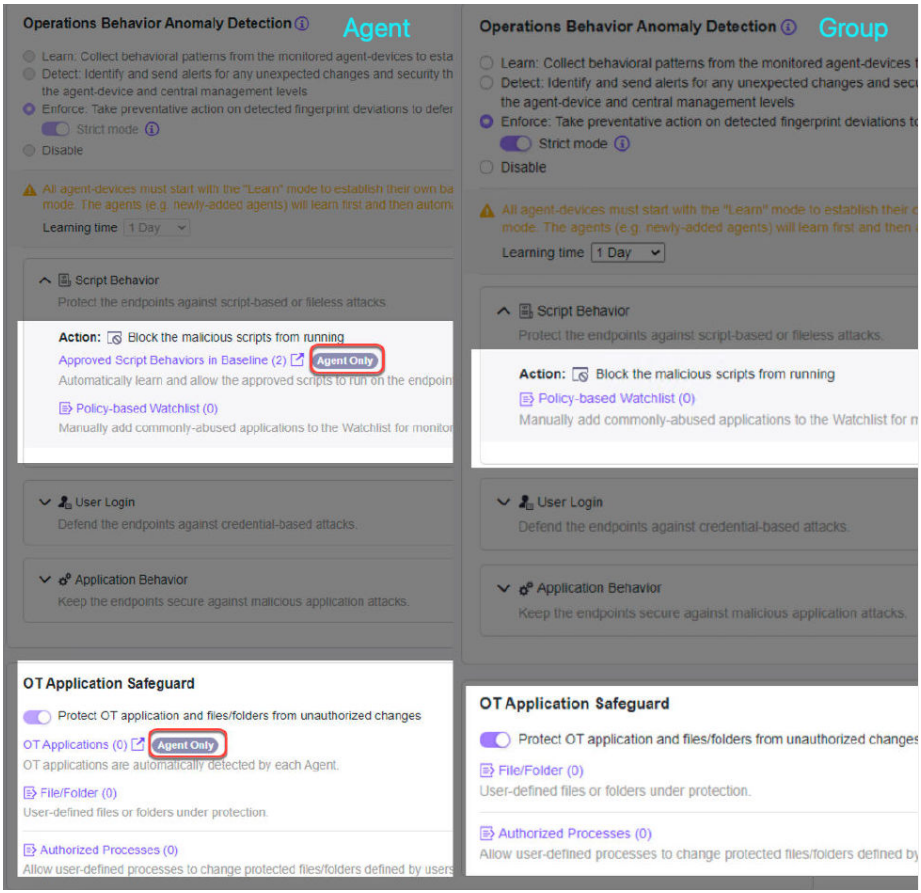


FIGURE 6-2. Differences between the Agent & Group Policy Pages

Refer to the *Agent Policy Settings on page 5-7* for how to configure group policy settings.

Set Policy Refresh Interval

You can specify how often the StellarOne policy and the Situational Awareness data sync are applied to the specific agent.

Procedure

1. See *Go to the Agent View on page 5-2* for a single agent or *Go to the Group Policy Screen on page 6-3* for a group setting.
2. Find the refresh icon in the upper-right corner of the screen.
3. Click the refresh icon and the **Set Policy Refresh Interval** window appears
4. Click the **Refresh Interval** menu and select among the given options:
   - **5 Minutes**
   - **10 Minutes**
   - **20 Minutes** (default setting)
   - **60 Minutes**

Important

Frequent refresh might interfere with your work and increase network traffic. See the following table as the recommended policy refresh interval regarding the number of agents managed:

Policy Refresh Interval	No. of Agents Managed
5 minutes	5000
10 minutes	10000
20 minutes	20000
60 minuties	60000

5. Click **Save** to complete the setting.

Chapter 7

Logs

This chapter describes how to access StellarOne-generated logs and the logs related to the agents, as well as includes detailed log information for advanced administrator management. Topics in this chapter include:

Agent Events

The StellarOne collects activities on agents and log them in the **Agent Events**.

Procedure

1. Mouse over the **Logs** tab in the top navigation bar of the StellarOne web console. A drop-down menu appears.
2. Click the **Agent Events**.
3. Click the StellarProtect or StellarProtect (Legacy Mode) tab, the corresponding agent event logs appear.
4. Regarding how to search for the relevant log messages for troubleshooting or analysis. Please refer to *Agent Events Log Filtering on page 7-6* for more details.

Note

- For StellarProtect's event IDs and corresponding log information, refer to *Log Descriptions for StellarProtect on page A-2*.
- For StellarProtect (Legacy Mode)'s event IDs and corresponding log information, refer to *Log Descriptions for StellarProtect (Legacy Mode) on page A-24*

About Agent Events Screen

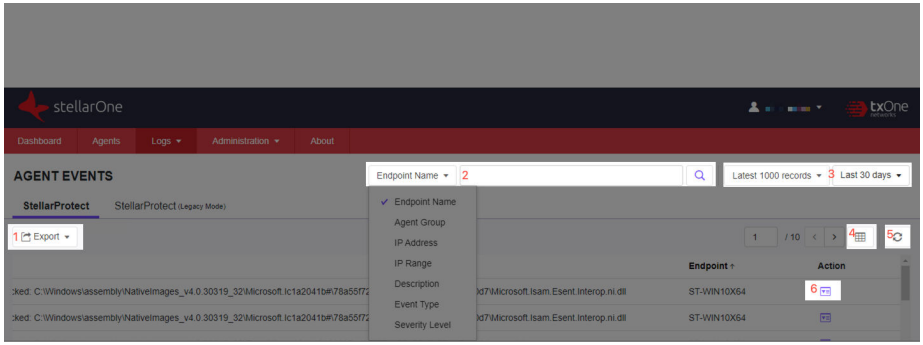
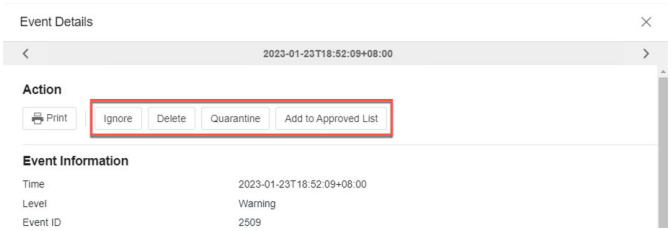
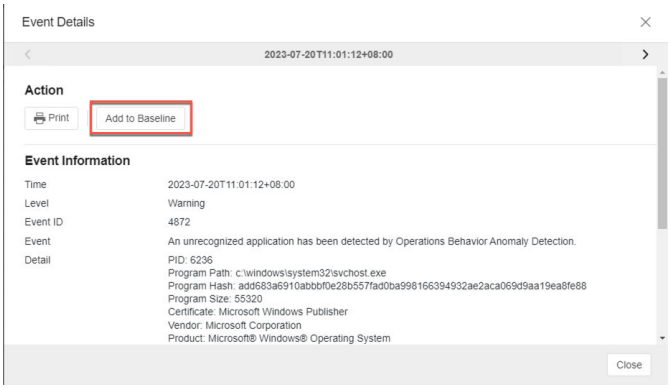


FIGURE 7-1. StellarProtect Agent Events Logs

TABLE 7-1. About Agent Events Screen

ITEM	DESCRIPTION
(1) Export	Users can export log list as an `.csv` file by clicking the **Export** button. It provides a drop-down menu consisting of: • **Export Selected**: This button is activated when users select the checkbox(es) next to the logs to be exported. • **Export All**: This button is always activated for users to export logs. **Note** The maximum exported log entries are limited to 10,000.
(2) Filter	This tool allows users to search for the relevant log messages for troubleshooting or analysis. See *Agent Events Log Filtering on page 7-6* for more details.
(3) Log display setting	Users can customize how many logs to be displayed either by: • the number of the latest log records • the logs generated within a particular period

Item	Description
(4) Screen display setting	By clicking this button, users can customize the screen display by: • selecting how many logs to be displayed per page • hiding certain contents by unchecking **Time**, **Level**, **Event**, or **Endpoint** in the **Cusomize Table Display** window.
(5) Refresh	The button allows users to manually refresh the screen for the latest log outputs.

Item	Description
(6) View Details	For **Information** level logs, this button allows users to view and print event details such as event information, agent information and components version. For **Critical** level logs, this button allows users to view and print event details such as event information and agent information. For **Warning** level logs, in addition to viewing and printing event details such as event information and agent information, this button also allows users to apply one of the following actions to the unknown files, such as **Ignore**, **Delete**, **Quarantine**, **Add to Approved List**, or **Add to Baseline**. See *Agent Event Actions on page 7-7* for more details.  **FIGURE 7-2. Event Details of Warning Level Logs -1**  **FIGURE 7-3. Event Details of Warning Level Logs -2**

Agent Events Log Filtering

This section describes how to filter the **Agent Events** logs to find the most relevant log messages.

Procedure

1. Go to **Logs** > **Agent Events** > **StellarProtect**. Click the **Endpoint Name** next to the search bar, and then a drop-down menu appears.
2. There are two types of log filtering based on the drop-down menu. Choose from either one listed below depending on your needs.
   - Select the **Endpoint Name**, **IP Address**, **IP Range**, or **Description**, and then type the search strings in the search field.
   - Select the **Agent Group**, **Event Type**, or **Severity Level**, a search box with an arrow pointing downwards appears. Tap on it to see the options under different categories.
     - **Agent Group**: The **Select a group** window appears. Select one group and click **Confirm** for viewing its log records.
     - **Event Type**: A drop-down menu with options of event types appears. Select one of them for viewing the relevant log records.

       Note

       Please refer to *Log Descriptions on page A-2* for more details about different event types.

     - **Severity Level**: A drop-down menu with options of **Warning**, **Critical**, and **Information** appears. Select one of them for viewing the log records by different levels.
3. Click the search icon next to the search bar and then the screen will display the search result.
4. To clear the search criteria, close the filtering criteria appears above the **Export** button.

Agent Event Actions

The following table shows the actions you can apply to certain warning level events.

Action	Description
Ignore	Performs no action to the detected file.
Delete	Deletes the detected file.
Quarantine	Moves the detected file to a quarantine folder on the agent-device.
Add to Approved List	Adds the detected file to the Approved List. See *StellarProtect Application Lockdown on page 5-8* or *StellarProtect (Legacy Mode) Application Lockdown on page 5-48* for more details.
Add to Baseline	Adds the detected file to the baseline. See *Add to Baseline on page 7-7* for more details.

Add to Baseline

This section describes how to apply the **Add to Baseline** action when the relevant event occurs and the associated outcomes.

Procedure

1. To check StellarProtect agent events, go to **Logs** > **Agent Events** > **StellarProtect**.

   Note

   To check StellarProtect (Legacy Mode) agent events, select the **StellarProtect (Legacy Mode)** tab page instead.

2. Find the **Warning** level events related to the Operations Behavior Anomaly Detection, and then click the **Event Details** icon in the **Action** column.

3. Click the **Add to Baseline** to apply this action. For example, the unrecognized application detected as shown in the image below will be added to the agent baseline as an approved application.

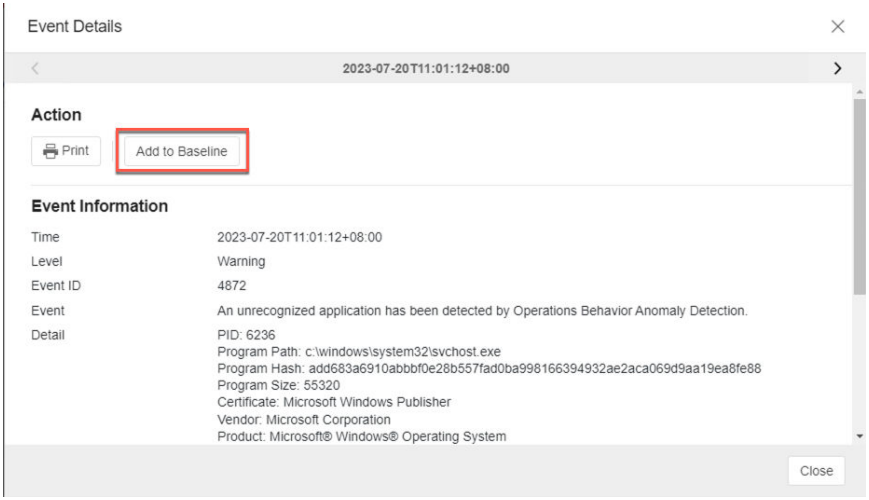


FIGURE 7-4. An example of the event with "Add to Baseline" action

4. To check if the application has been added to the agent baseline, go to the **Situational Awareness** page.

5. Find the search and filter tool, select **Added From** and **Event action** as the criteria and click the search icon.

6. As a result, the table displays a list of the approved applications added from the event action "**Add to Baseline**".

Note

Since the baseline data are transmitted at the default or specified policy refresh interval, the result of the applied action may not appear in the **Situational Awareness** baseline immediately. You can shorten the policy refresh interval to make the result appear earlier. See *Set Policy Refresh Interval on page 5-6* for how to configure the settings.

Server Events

Activities on StellarOne Servers and configuration deployed on the Agents by StellarOne are logged and shown in the **Server Events** screen.

Procedure

1. Mouse hover the **Logs** tab in the top navigation bar of the StellarOne web console. Click the **Server Events** option.
2. Click the StellarProtect or StellarProtect (Legacy Mode) tab, the configuration events deployed on the Agents by StellarOne appear.
3. Click the **StellarOne** tab, the StellarOne server event logs appear.

About Server Events Screen

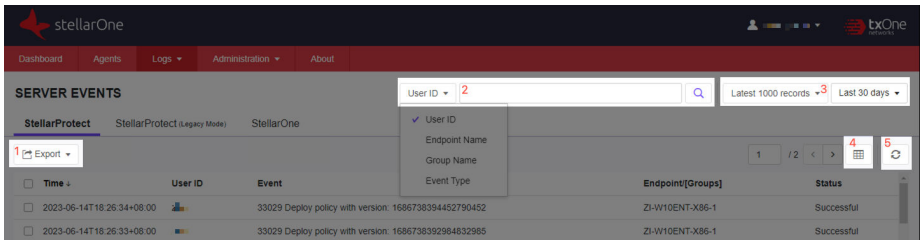


FIGURE 7-5. Server Events Logs for SterllarProtect

TABLE 7-2. About StellarProtect Server Events Screen

ITEM	DESCRIPTION
(1) Export	Users can export log list as an `.csv` file by clicking the **Export** button. It provides a drop-down menu consisting of: • **Export Selected**: This button is activated when users select the checkbox(es) next to the logs to be exported. • **Export All**: This button is always activated for users to export all logs.

Item	Description
(2) Filter	This tool allows users to search for the relevant log messages for troubleshooting or analysis. Please refer to *Server Events Log Filtering on page 7-11* for procedures.
(3) Log display setting	Users can customize how many logs to be displayed either by: • the number of the latest log records • the logs generated within a particular period
(4) Screen display setting	By clicking this button, users can customize the screen display by: • selecting how many logs to be displayed on one page • hiding certain contents by unchecking **Time**, **User ID**, **Event**, **Endpoint/[Groups]**, or **Status** in the **Cusomize Table Display** window.
(5) Refresh	The button allows users to manually refresh the screen for the latest log outputs.

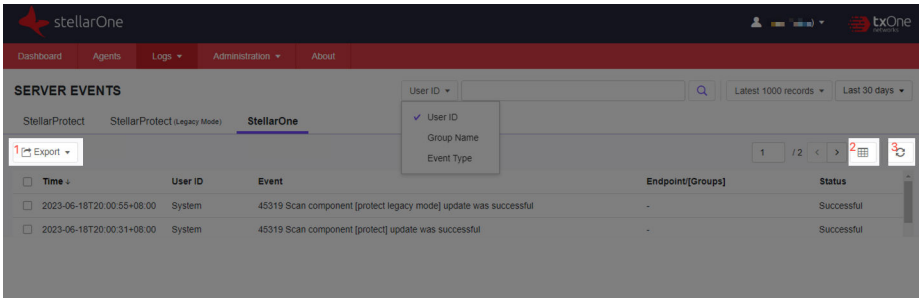


Figure 7-6. Server Events Logs for SterllarOne

TABLE 7-3. About StellarOne Server Events Screen

ITEM	DESCRIPTION
(1) Export	Users can export log list as an `.csv` file by clicking the **Export** button. It provides a drop-down menu consisting of: • **Export Selected**: This button is activated when users select the checkbox(es) next to the logs to be exported. • **Export All**: This button is always activated for users to export all logs.
(2) Screen display setting	By clicking this button, users can customize the screen display by: • selecting how many logs to be displayed per page • hiding certain contents by unchecking **Time**, **User ID**, **Event**, **Endpoint/[Groups]**, or **Status** in the **Cusomize Table Display** window.
(3) Refresh	The button allows users to manually refresh the screen for the latest log outputs.

Server Events Log Filtering

This section describes how to filter the **Server Events** logs to find the most relevant log messages.

Procedure

1. Go to **Logs** > **Server Events** > **StellarProtect**. Click the **User ID** next to the search bar, and then a drop-down menu appears.
2. There are two types of log filtering based on the drop-down menu. Choose from either one listed below depending on your needs.
   - Select the **User ID** or **Endpoint Name**, and then type the search strings in the search field.
   - Select the **Group Name** or **Event Type**, a search box with an arrow pointing downwards appears. Tap on it to see the options under different categories.
     - **Group Name**: The **Select a group** window appears. Select one group and click **Confirm** for viewing its log records.

- **Event Type**: A drop-down menu with options of event types appears. Select one of them for viewing the relevant log records.

Note

Please refer to *Server Event Log Descriptions for StellarProtect on page A-23* for more details on various event types.

3. Click the search icon next to the search bar and then the screen will display the search result.
4. To clear the search criteria, close the filtering criteria appears above the **Export** button.

Note

Please refer to *Server Event Log Descriptions for StellarProtect on page A-23* and *Server Event Log Descriptions for StellarOne on page A-77* in the Appendices for more details about event IDs and corresponding log information..

System Logs

Internal system processes generated by StellarOne Servers are logged and shown in the **System Logs**.

Procedure

1. Mouse over the **Logs** tab in the top navigation bar of the StellarOne web console.
2. Click the **System Logs** option.
3. The **System Logs** screen appears.

About System Logs Screen

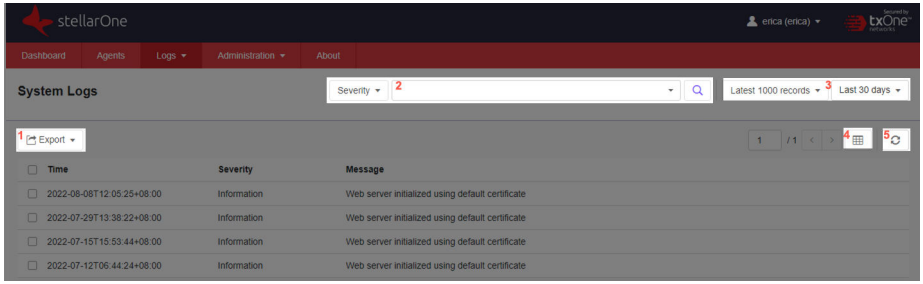


FIGURE 7-7. System Logs Screen

TABLE 7-4. About System Logs Screen

ITEM	DESCRIPTION
Export	Users can export log list as an `.csv` file by clicking the **Export** button. It provides a drop-down menu consisting of: • **Export Selected**: This button is activated when users select the checkbox(es) next to the logs to be exported. • **Export All**: This button is always activated for users to export all logs.

Item	Description
Filter	Users can filter logs by selecting or specifying certain severity level directly in the search bar. The severity levels are listed as below: • Emergency • Alert • Critical • Error • Warning • Notice • Information • Debug After users set the search criteria and click the search button, the screen displays the search result. Meanwhile, the filtering criteria appears above the **Export** button. Close it to clear the search criteria and return to the initial screen.
Log display setting	Users can customize how many logs to be displayed either by: • the number of the latest logs records • the logs generated within a particular period
Screen display setting	By clicking this button, users can customize the screen display by: • selecting how many logs to be displayed per page • hiding certain contents by unchecking **Time**, **Severity**, or **Message** in the **Customize Table Display** window.
Refresh	The button allows users to manually refresh the screen for the latest log outputs.

Audit Logs

The **Audit Logs** screen displays the user activities such as login, logout, or account creation/deletion.

Procedure

1. Mouse over the **Logs** tab in the top navigation bar of the StellarOne web console.
2. Click the **Audit Logs** option.
3. The **Audit Logs** screen appears.

About Audit Logs Screen

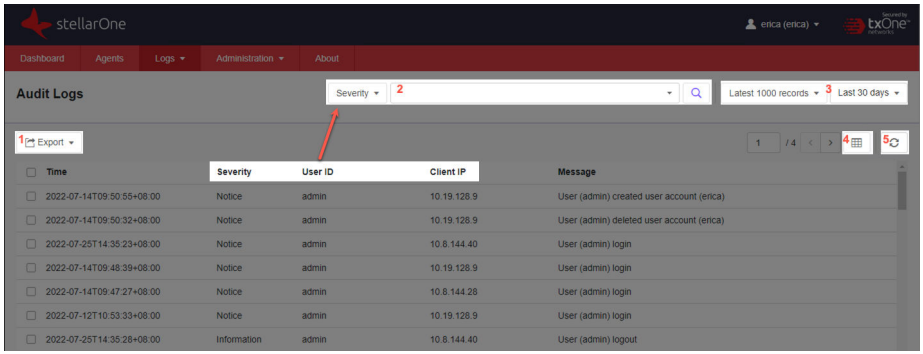


FIGURE 7-8. Audit Logs Screen

TABLE 7-5. About Audit Logs Screen

ITEM	DESCRIPTION
(1) Export	Users can export log list as an `.csv` file by clicking the **Export** button. It provides a drop-down menu consisting of: • **Export Selected**: This button is activated when users select the checkbox(es) next to the logs to be exported. • **Export All**: This button is always activated for users to export all logs.
(2) Filter	This tool allows users to search for the relevant log messages for troubleshooting or analysis. Please refer to *Audit Log Filtering on page 7-16* for procedures.

Item	Description
(3) Log display setting	Users can customize how many logs to be displayed either by: • the number of the latest logs records • the logs generated within a particular period
(4) Screen display setting	By clicking this button, users can customize the screen display by: • selecting how many logs to be displayed per page • hiding certain contents by unchecking **Time**, **Severity**, **User ID**, **Client IP**, or **Message** in the **Cusomize Table Display** window.
(5) Refresh	The button allows users to manually refresh the screen for the latest log outputs.

Audit Log Filtering

This section describes how to filter the **Audit Log** to find the most relevant log messages.

Procedure

1. Go to **Logs** > **Audit Log**. Click the **Severity** next to the search bar, and then a drop-down menu appears.
2. There are two types of log filtering based on the drop-down menu. Choose from either one listed below depending on your needs.
   - Select the **User ID** or **Client IP**, and then type the search strings in the search field for viewing logs related to certain user account or IP address.
   - Select the **Severity**, a search box with an arrow pointing downwards appears. Tap on it to see the options listed below. Select one of them for viewing the log records by different levels.
     - Emergency
     - Alert
     - Critical

- Error
- Warning
- Notice
- Information
- Debug

3. Click the search icon next to the search bar, and then the screen will display the search result.
4. To clear the search criteria, close the filtering criteria appears above the **Export** button.

Chapter 8

Administration

This chapter introduces the StellarOne web console's administration settings, mainly grouped into four categories: **Account**, **Notification**, **Update**, and **System**.

Topics in this chapter includes:

- **System**
  - *System Time on page 8-36*
  - *Log Purge on page 8-36*
  - *Importing SSL Certificate on page 8-38*
  - *OT Intelligent Trust on page 8-39*
  - *Service Integration on page 8-39*

Account

Topics in this section includes

Account Management

Go to **Administration** > **Account Management** to manage user accounts for accessing the StellarOne web console.

The **Account Management** screen have two tabs: **Users** and **Roles**. One allows users to manage accounts; the other one provides information about different privileges for different accounts.

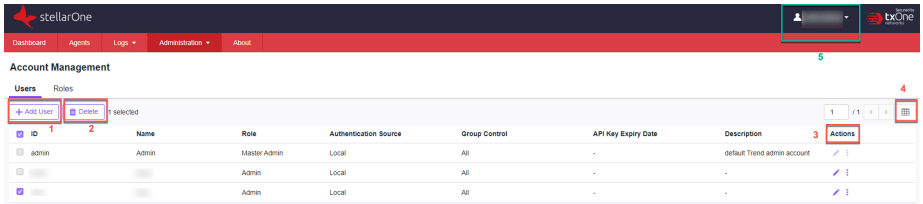


FIGURE 8-1. Account Management Screen

TABLE 8-1. About Account Management Screen - Users

ITEM	DESCRIPTION
(1) **+Add User**	This button allows you to add account(s) for accessing StellarOne web console. See *Add Accounts on page 8-8* for instructions.
(2) **Delete**	This button allows you to delete account(s). See *Delete Accounts on page 8-9* for instructions.

Item	Description
(3) **Actions**	The **Edit** button allows you to edit a single user account. See *Edit Accounts on page 8-10* for instructions. The three dots **More Actions** button allows you to: • Generate an API Key: see *Generate an API Key on page 8-10* for instructions. • Delete a single user account: see *Delete Accounts on page 8-9* for instructions.
(4) **Screen display setting**	By clicking this button, you can customize the screen display by: • selecting how many items to be displayed on one page • hiding certain contents by unchecking items related to the titles in the **Customize Table Display** window.
(5) **Account icon**	Click the account icon at the top-right corner of the screen to change your password or log off.

See *Account Types on page 8-4* for more information about the **Roles** page.

Account Types

StellarOne user accounts are categorized into three types as listed below.

Table 8-2. StellarOne Account Types

Account Types	Access Rights	Privileges
Admin	Full control	• Manage StellarOne: The privilege of configuring system settings • Account Management: The privilege of managing StellarOne accounts • Manage Group: The privilege of creating, moving, or deleting groups • Policy Configuration: The privilege of defining policy for Agents such as USB Control and Intelligent Runtime Learning

Account Types	Access Rights	Privileges
Operator	Asset control	• Manage Group: The privilege of creating, moving, or deleting groups • Policy Configuration: The privilege of defining policy for Agents such as USB Control and Intelligent Runtime Learning
Viewer	Read only	• Read only for the Dashboard, Agent Events logs, as well as the configurations of the Agent's Policy, Scheduled Report, Notification, and StellarOne's Scan Component information. • Allowed to download the Agent's installer package and `Group.ini` file • Allowed to change his/her own account password.

Server Accounts Overview

TXOne StellarOne features web console accounts with different privileges and limitations. Use these accounts to configure StellarOne and to monitor or manage StellarProtect agents. The following table outlines typical StellarOne tasks and the account privileges required to perform them.

Table 8-3. StellarOne Account Types

Task	Account Privilege Allowed		
	Admin	Operator	Viewer
Dashboard	√	√	√
Configure Application Lockdown	√	√	
Configure Maintenance Mode	√	√	
Configure Device Control	√	√	

Task	Account Privilege Allowed		
	Admin	Operator	Viewer
Add trusted files	√	√	
Add trusted USB devices	√	√	
Scan now	√	√	
Update Approved List	√	√	
Update agent components	√	√	
Deploy agent patch	√	√	
Check connection	√	√	
Deploy policies	√	√	
Policy refresh interval	√	√	
Collect event logs	√	√	
Import / Export (Approved List / agent configuration)	√	√	
Organize (edit description / move / delete)	√	√	
Configure group policy	√	√	
Configure global policy	√	√	
Monitor agent event logs	√	√	√

Task	Account Privilege Allowed		
	Admin	Operator	Viewer
Monitor server event logs	√	√	
Monitor system logs	√	√	
Monitor audit logs	√	√	
Account management	√		
Single Sign-On	√		
System time settings	√	√	
Syslog forwarding	√	√	
Log purge	√	√	
Scheduled report	√	√	√
Notification settings	√	√	√
SMTP settings	√	√	
Proxy settings	√	√	
Downloads / Updates	√	√	√
Firmware update	√		
SSL Certificate	√		
License management	√	√	

Add Accounts

This section describes how to add user accounts for accessing StellarOne web console.

Procedure

1. Log on to the web console using an account with the **Admin** role.

   Note

   - The logon credentials entered here are case-sensitive.
   - Only the account with the **Admin** role can manage user accounts.

2. Go to **Administration** > **Account Management**.
3. Click **Add User** button, and then the **Add User Account** window appears.
4. Specify the **Authentication Source** (**Local** or **SAML Identity Provider**).
   - To add a **Local** user, specify the **ID** and **Name**.
   - To add an **SAML Identity Provider** user, specify **Email for SAML Account Mapping** and **Name**.

     Note

     To allow an SAML Identity Provider user to log in using Single Sign-On (SSO), click the **Single Sign On Configuration** link. Please refer to *Single Sign-On on page 8-11* for procedures.

   Note

   The **ID**, **Name**, and **Email for SAML Account Mapping** entered here are case-sensitive.

5. **Role**: Select among the account roles **Admin**, **Operator** or **Viewer** (Default). Please refer to *Account Types on page 8-4* for more details on the account privileges.

- For a **Local** user, specify the **Local Password** and re-type it for confirmation.

6. **Group Control**: Select the groups the target account is allowed to access or view.
7. Click **Confirm** to complete the user account creation.

Delete Accounts

This section describes how to delet user accounts that are no longer needed.

Procedure

1. Log on to the web console using an account with the **Admin** role.

   Note

   - The logon credentials entered here are case-sensitive.
   - Only users logged on with the **Admin** role can manage user accounts.

2. Go to **Administration** > **Account Management**.
3. There are two ways of deleting user accounts.
   - To delete only one user account at a time, under the **Actions** column, click the trash-can icon corresponding to the target user account.
   - To delete multiple user accounts at a time, click the checkboxes next to the user accounts you wan to delete, and then click the **Delete** button next to the **Add User** button.
4. The **Delete User Account** window appears.
5. Click **Confirm** to delete the user account(s).

Edit Accounts

This section describes how to edit user accounts that have been created.

Procedure

1. Log on to the web console using an account with the **Admin** role.

   Note

   - The logon credentials entered here are case-sensitive.
   - Only the account with the **Admin** role can manage user accounts.

2. Go to **Administration** > **Account Management**.
3. Under the **Actions** column, click the edit icon corresponding to the target user account.
4. The **Edit User Account** window appears.
   - For a **Local** user, the **Role**, **Name**, **Password**, **Group Control**, and **Description** of an account can be edited.
   - For an **SAML Identity Provider** user, the **Role**, **Name**, **Group Control**, and **Description** of an account can be edited.

   Note

   To allow an SAML Identity Provider user to log in using Single Sign-On (SSO), click the **Single Sign On Configuration** link. Please refer to *Single Sign-On on page 8-11* for procedures.

5. Click **Confirm** to complete editing user account(s).

Generate an API Key

Users can generate API keys and query data from agents via the open API. The expiration dates of the API keys can be set for different user accounts to increase account management efficiency.

Procedure

1. Log on to the web console using an account with the **Admin** role.

   Note

   - The logon credentials entered here are case-sensitive.

2. Go to **Administration** > **Account Management**.
3. Under the **Users** tab, find the user ID you want to modify and go to the kebab menu under **Actions** at the right of the screen.
4. Click on the kebab menu, and then select the **Generate an API Key** option.
5. The **Generate an API Key** window appears. Click the date picker and choose an expiration date on the pop-up calendar. Click **Confirm**.
6. An API key is generated. Click the clipboard for copying the generated API key.

   Important

   Make sure to back up the copied API key before proceeding to the next step. The API key will not be displayed again for security reasons.

7. Click **OK**.
8. Check the result under the **API Key Expiry Date** or mouse over above the kebab menu of the user account, and the expiration date of the API key will appear.

Single Sign-On

Users who log on with the SAML Identity Provider user account can choose to complete the Single Sign-On (SSO) configuration, which allows to access multiple applications and services using a single set of login credentials.

Procedure

1. Log on to the web console using an account with the **Admin** role.

   Note

   - The logon credentials entered here are case-sensitive.

2. Go to **Administration** > **Single Sign-On**.
3. Click the **Download** button to download the StellarOne metadata XML file
4. Upload the StellarOne metadata XML file to your IdP, and then download the IdP metadata XML file.
5. Click the **Upload** button to upload the IdP metadata XML file to StellarOne web console to complete the SAML 2.0 SSO configuration.

   Important

   The IdP metadata XML file must be re-uploaded if there is a configuration change on the IdP.

6. After the IdP metadata XML file is uploaded, the **Test Connection** button will appear.
7. Click **Test Connection** to test the connectivity between the StellarOne and IdP servers.

   Note

   If the IdP and StellarOne servers are connected to different networks, the IdP connection test may fail, yet the SAML SSO may still work. Try logging in with SSO and if invalid logon error message appears, see *Resolving the SSO Issue on page 8-13* to check email setting in IdP server or system time synchronization in IdP and StellarOne servers.

Resolving the SSO Issue

Procedure

1. Open the **Users** folder under the **Active Directory Users and Computers** in IdP server.
2. Right-click on the user account used for SSO, and then go to **Properties** > **General**.
3. Check the **E-mail** field. Make sure the email input here is consistent with the account email used for accessing StellarOne web console.

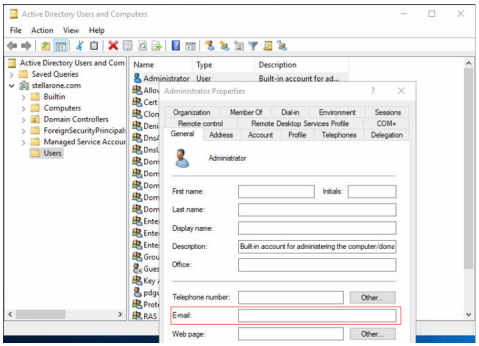


FIGURE 8-2. Resolving SSO Issue - Email Check

4. Make sure the system time in IdP and StellarOne servers are synchronized. Below are suggested procedures for time synchronization setting.
    a. Ensure the time in the IdP server synchronizes with the host PC that runs the StellarOne Virtual Machine (VM).
    b. Open the VM settings of StellarOne. Go to **Options** > **VMware Tools**.
    c. Click the checkbox of **Synchronize guest time with host**, and then click **OK**.

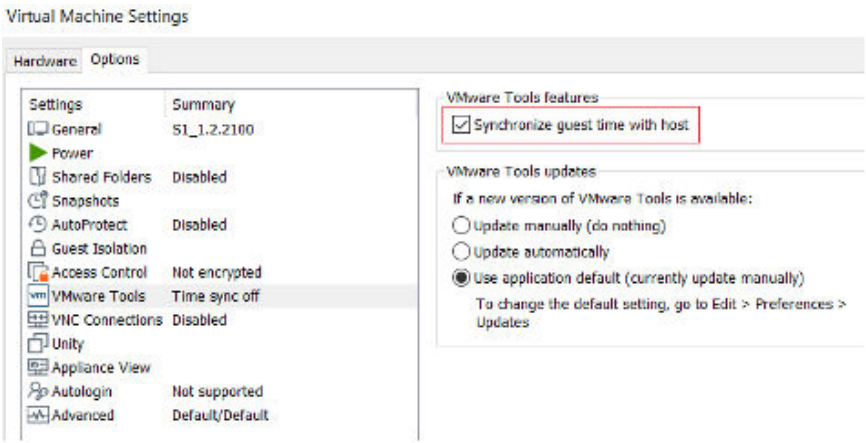


FIGURE 8-3. Virtual Machine Settings - Time Synchronization

Notification

Topics in this section includes:

- *SMTP Settings and Notification on page 8-14*
- *Scheduled Report on page 8-16*
- *Syslog Forwarding on page 8-18*

SMTP Settings and Notification

The settings allow users to receive notifications of warning or outbreak events by emails.

Procedure

1. Go to **Administration** > **SMTP Settings** for specifying the SMTP server setting required for notification sending.
2. Specify the **Server address**, **Port**, and **Sender**.
3. Specify the Security mode by clicking **STARTTLS**, **SMTPS**, or **None**.

4. (Optional) If the SMTP server requires authentication, click the checkbox next to **SMTP server requires authentication**. Specify the **User name** and **Password** as the SMTP server authentication credential.
5. Click the **Send Test Email** button to send a test email from StellarOne (This step is essential for *Step 13*).
6. Click **Save** to complete the SMTP setting.
7. Go to **Administration** > **Notification** for notification criteria and email setting.
8. Under the **Warning Level Agent Events**, click the **Send warning level agent events** toggle to enable it.

Note

When the switch under **Warning Level Agent Events** is enabled, StellarOne console will send a notification to your email when an incident that triggers a "**Warning**" happens.

9. Under the **Outbreak**, click the **Send outbreak notifications** toggle to enable it.

Note

When the switch under **Outbreak** is enabled, StellarOne console will send a notification to your email when more than a specified number of open warning messages have appeared in a specified time period.

10. Define an outbreak by the number of detections and the detection period.
    - Specify the number of occurrences of an event in the field of **Number of warnings in a time period** (1- 20000).
    - Specify the time frame during which the event has occurred in the field of **The time period of those warnings** (1 - 60 minutes).
11. Under **Email Notifications**, specify the email address for receiving the notifications in the **Send to** field.

12. Click **Save** to complete the setting.
13. Go to the specified email box to check if you receive the test email sent from StellarOne (see *Step 5*).

Scheduled Report

By configuring the **Scheduled Report**, users can receive a list of all reports that automatically generate on a user-defined schedule. The **Scheduled Report** screen also provides basic information about previously configured schedules and recipients, as well as allows users to enable and disable sending scheduled reports

Note

Only StellarProtect (Legacy Mode) supports this function.

Procedure

1. Go to **Administration** > **Scheduled Report**.
2. Toggle on **Send scheduled reports**.

Note

By default, the **Scheduled Report** is disabled.

3. Three available settings appear on the **Scheduled Report** screen.

Settings	Description
Report content	Event Type: • StellarProtect (Legacy Mode) Blocked Event History • StellarProtect (Legacy Mode) Top 10 Endpoints with Blocked Events • StellarProtect (Legacy Mode) Top 10 Blocked Files Time Period: A drop-down menu for users to choose preferred time period during which the above-mentioned events occur • Last 7 days • Last 14 days • Last 30 days • Last 3 months • Last 6 months
Schedule	Set the frequency and start time for the scheduled reports on a daily, weekly, or monthly basis.  **Note** It is advisable NOT to select the date 29th, 30th, or 31st for monthly update frequency. This helps prevent the system from bypassing the update in the month that does not contain the date 29th, 30th, or 31st.
Recipients	A valid email address is required for specifying the report recipient.  **Note** When entering muiltiple email addresses, be sure to use the semicolon character to separate them.

4. Click **Save** to save the settings.

Syslog Forwarding

Users can forward the Server and Agent Event logs to an external Syslog server for increasing monitoring and management capabilities. TXOne StellarOne console forwards logs in the Common Event Format (CEF). Make sure your Syslog server supports the Common Event Format (CEF).

Procedure

1. Go to **Administration** > **Syslog Forwarding**.
2. Click the **Forward logs to syslog server (CEF only)** toggle to switch on the function.
3. Specify the **Server Address**, **Port**, and **Protocol** of the Syslog server.
4. Click **Save** to complete the settings.

   Please refer to *StellarProtect Agent Event Format on page A-78*, *StellarProtect Server Event Format on page A-81*, or *StellarOne Server Event Format on page A-84* in the Appendices for details about the logs forwarded in the Common Event Format (CEF).

Update

Topics in this section includes:

- *Proxy Settings on page 8-18*
- *Downloads/Updates on page 8-20*
- *Importing Firmware on page 8-25*
- *License on page 8-26*

Proxy Settings

There are three proxy settings: Proxy Settings for StellarOne to internet, Proxy settings for StellarOne to Agent communications, and Proxy Settings for Agent to StellarOne communicates.

Procedure

1. Go to **Administration** > **Proxy**.
2. Toggle on the **Proxy Settings...** to enable below settings.
   - **Proxy Settings for StellarOne to internet**
   - **Proxy Settings for StellarOne to Agent communications**
   - **Proxy Settings for Agent to StellarOne communications**
3. To configure proxy settings for updates:
   a. Select the HTTPS or HTTP protocol.

   Note

   For **Proxy Settings for Agent to StellarOne communications**, since currently the StellarProtect does not support HTTPS proxy, if the destination is an HTTPS server, please use the HTTP proxy for connection.

   b. In the **Server Address** field, specify the IPv4 address or FQDN of the proxy server.
   c. Specify the **Port**.
   d. If your proxy server requires authentication, select **Proxy server requires authentication** and enter your credentials.
   e. Click **Save**.

Tip

To configure the proxy settings used by StellarOne when sending messages to StellarProtect:

- **Before installation**: Add the proxy information to the configuration file in the Agent's installer package and save the proxy settings. The settings will then be included in the Agent's installer package after the Agent's installer package is repacked.
- **After installation**: Use the `opcmd.exe` or `SLCmd.exe` Command Line Interface tool on the local StellarProtect or StellarProtect (Legacy Mode) Agent.

Downloads/Updates

The **Downloads/Updates** page allows users to execute below tasks:

- Configuring scan component for StellarOne
- Downloading the Agent Installer Package or `Group.ini` file for *Group Mapping on page 8-23*.
- Importing or deleting patch files for the agents

Configuring Scan Component for StellarOne

Procedure

1. Go to **Administration** > **Downloads/Updates** > **StellarOne**.
2. To start the component update for StellarOne immediately, click the **Update Now** button in the **Scan Component** section.

Note

- By clicking the **Update Now**, StellarOne will download and update the latest components. All of the pattern and engine versions available are listed under the **Update Now** button.
- You can refer to the **Last Updated:** near the **Update Now** button for the last time the scan component was updated.

3. To schedule for the component update, find and click the **Scan Component Update Schedule (StellarOne)** at the bottom of the screen.
   a. The **Scan Component Update Schedule (StellarOne)** window appears.
   b. Toggle on the **Schedule Update**.
   c. Click the radio buttons next to **Frequency** to set the frequency by **Daily**, **Weekly**, or **Monthly**.

      Important

      It is advisable NOT to select the date 29th, 30th, or 31st for monthly update frequency. This helps prevent the system from bypassing the update in the month that does not contain the date 29th, 30th, or 31st.

   d. Click the **Start Time** to determine when to start the scheduled scan component update.
4. To specify the download source for StellarOne regarding different network configurations, find and click the **Scan Component Update Source** at the bottom of the screen.
   a. The **Scan Component Update Source** window appears.
   b. In the **Scan Component Update Source (StellarOne)** section:
   - If the StellarOne server can connect to the ActiveUpdate server, select the **ActiveUpdate server**, the component update will be downloaded directly from the ActiveUpdate server.

- If the StellarOne server can not connect to the ActiveUpdate server or if users host an update server in an internal network, select **Other update source** and specify the URL address in the text field.

5. To specify the download source for agents regarding different network configurations or agent types, find and click the **Scan Component Update Source** at the bottom of the screen.

   a. The **Scan Component Update Source** window appears.

   b. In the **Scan Component Update Source (Agents)** section:

   - If the agents can connect to StellarOne server, select **Update from StellarOne** to download the component update directly from the StellarOne server.
   - If the agents can not connect to StellarOne server or if they are standalone agents, select **Other update source** and specify the URL address in the text field.

Downloading Agent Installer Package/Group.ini File

Procedure

1. Go to **Administration** > **Downloads/Updates** > **Agent**.
2. To download the latest Agent Installer Package. Click **Download**.

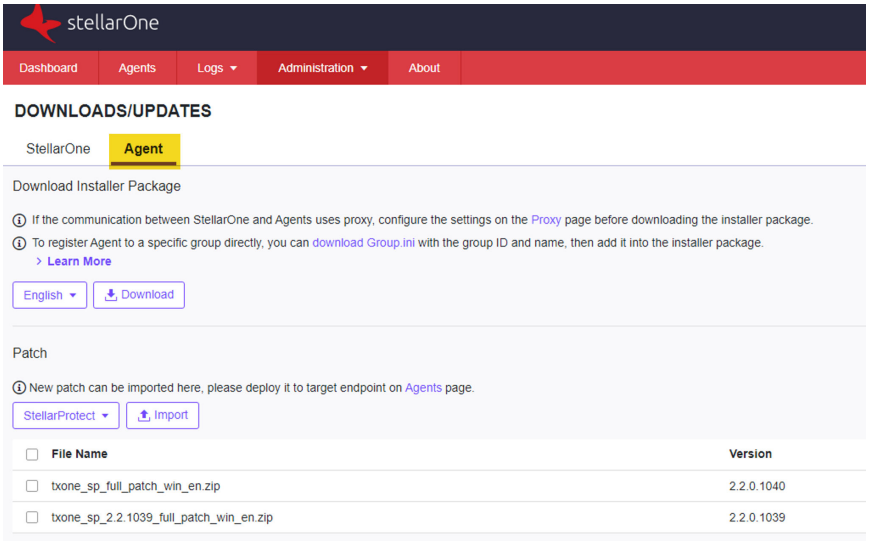


FIGURE 8-4. Downloads/Updates Screen

A zipped folder is downloaded. Extract the folder and proceed with the installation for the agents. Please refer to the StellarProtect Installation Guide for more details.

3. (Optional) If the StellarOne uses proxy to communicate with the agents, click the **Proxy** link or go to **Administration** > **Proxy** to complete the proxy configuration before downloading the installer package. Please refer to *Proxy Settings on page 8-18* for detailed procedures.

4. (Optional) To directly register the agent to a specific group via StellarOne console, click the **download a Group.ini** link and add it into the agent's installer package. Please refer to *Group Mapping on page 8-23* for more details.

Group Mapping

This function allows users to directly register agent to a specific group via the StellarOne web console.

Procedure

1. Go to **Administration** > **Downloads/Updates**.
2. Select the **Agent** tab.
3. Click **Download** to download the Installer Package.
4. Click the **download Group.ini** link.
5. The **Select a group** window appears.
6. Select a group for the target agent and click **Download**. Click the **Close** button to close the window.
7. A file named `Group.ini` has been downloaded. Place the `Group.ini` file as the top-level file in the installer package of the target agent.
8. Run the installation on the target agent. Make sure the agent is connected to StellarOne console during the installation process.
9. Users can check the StellarOne console and the on-site target agent to see if the agent is successfully registered.

Importing/Deleting Agent's Patch

Procedure

1. Go to **Administration** > **Downloads/Updates** > **Agent** > **Patch**.
2. Select **StellarProtect** or **StellarProtect (Legacy Mode)** to determine the target agent.
3. Click **Import** to import the target patch file.
4. A **Import Patch** window appears. Click the radio button to determine the target agent.
5. Click **Select File** to select the patch file to import.

Important

Be sure to select the patch file that matches the target agent.

Tip

Click the **Agents** link to be directed to the **Agents** screen, and then use the **Update** button to deploy the imported patch to the target agents. See *Deploy Agent Patches on page 4-20* for instructions.

6. To remove existing patch files on StellarOne, select the target files and then the **Delete** button appears next to the **Import** button. Click **Delete** to remove the selected entries.

Importing Firmware

Procedure

1. Go to **Administration** > **Firmware**.
2. Click the **Import** button to import the firmware patch file (e.g. acus.fw_2.0.xxxx.acf) to StellarOne.
3. The **Firmware Update** window appears. The **Version** shows the current StellarOne build version, the **Release Date** and **Description** show the information for the StellarOne patch file.
4. Click **Apply** to apply the patch to StellarOne.
5. Read the upgrade notice carefully.
6. Click **Install Now** to implement the update or **Abort** to stop the update.

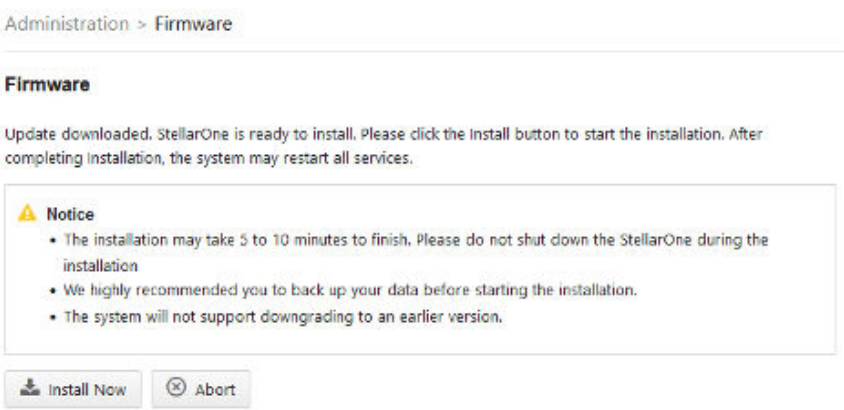


FIGURE 8-5. Firmware Update Notice

License

Topcis in this section includes:

- *About the License Screen on page 8-27*
- *License Management on page 8-29*
- *License Editions on page 8-33*

About the License Screen

Go to **Administration** > **License**. The following table lists details about the **License** page.

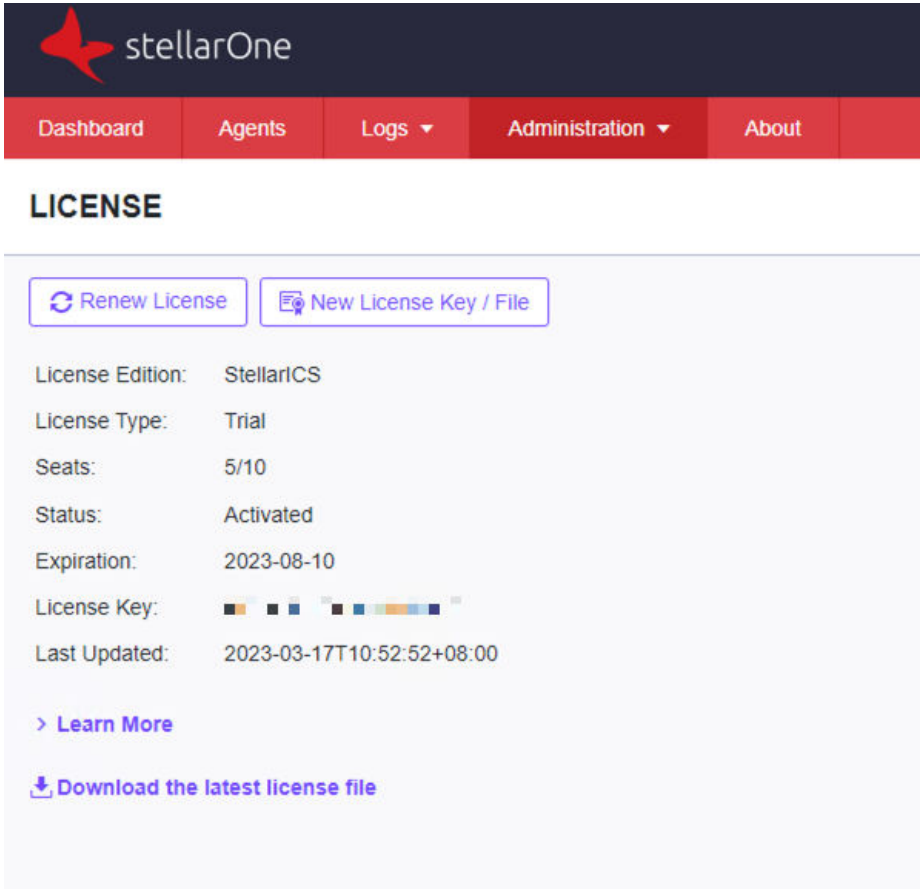


FIGURE 8-6. The License Screen

TABLE 8-4. About the License Screen

ITEM	DESCRIPTION
Renew License Key	This button is for license renewal using the same license key. Refer to *Renew License with the same License Key on page 8-30* for more details.
New License Key/ File	This button is for license activation using new license key or license file. Refer to *New License Key/File on page 8-32* for more details. **Note** This button can also be used for other purpose: license renewal using the license file. Refer to *Renew License by Importing License File on page 8-30* for more details.
License Edition	Displays current license edition for Stellar product. Refer to *License Editions on page 8-33* for more details.
License Type	• Full: a full version that is officially authorized. • Trial: a trial version with excluded features or limited functions. • Perpetual: provides permanent use and 5-year technical support.
Seats	Specifies current number of agents managed by StellarOne and the total number of agents that can be managed by StellarOne. For example, **Seats: 2/10** means: • 2 agents are currently managed • Up to 10 agents can be managed **Note** Overseat is triggered when seat in use exceeds the seat count; the agents that can not be managed by StellarOne due to overseat will be classified as "Inactive Agents" on the **Agents** screen. See *Filter Options for Agents/Groups on page 4-9* for more details.

Item	Description
Status	• Activated: The existing license is effective. • Expired: The existing license is out of date. **Note** It is recommended to renew license promptly to protect your devices against cybersecurity threats. Refer to one of the methods listed below for license renewal. • *Renew License with the same License Key on page 8-30* • *Renew License by Importing License File on page 8-30*
Expiration	Displays the effective date of existing license.
License Key	The license key that is required for activating StellarOne.
Last Updated	Displays the last time the License Key is updated.
Learn More	The link directs users to the Online Help web page for more details on license.
Download the Latest License File	The link is used to download the latest license file to renew license for standalone agents.

License Management

Users can renew license or activate new license via the StellarOne web console.

License Renewal

Choose one of the ways to renew license based on the license data available from your support provider:

- *Renew License with the same License Key on page 8-30*
- *Renew License by Importing License File on page 8-30*

Renew License with the same License Key

Procedure

1. Go to **Administration** > **License**
2. Click the **Renew License Key** button.
3. A message with **The License has been updated successfully** appears. The **Last Updated** shows the latest license renewal date and time.

Renew License by Importing License File

Procedure

1. Go to **Administration** > **License**
2. Click the **New License Key / File** button.
3. The **New License** window appears.
4. Click **License File**.
5. Select the license file (a `.txt` file) to import.

Note

If you don't have the license file on hand, refer to *Getting the License File on page 8-30*.

6. Click **Apply**.
7. A success message appears. The updated license information will be shown on the **License** page.

Getting the License File

The license file can be used for license renewal or new license activation. To get a license file, follow below precedures.

Procedure

1. Go to **Administration** > **License**
2. Click the **New License Key / File** button.
3. The **New License** window appears.
4. Click **License File**.
5. Click **Copy Download Link for getting the License File** at the bottom of the **New License** window.

Important

A license key is required for downloading a license file.

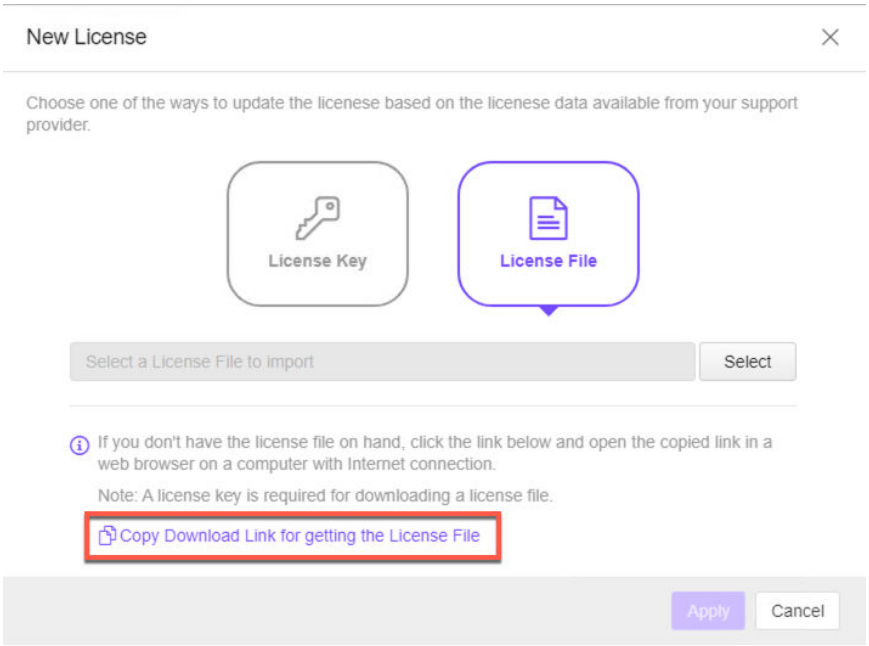


FIGURE 8-7. Copy Download Link for License File

6. **The Download Link has been copied** toast message appears.
7. Open the copied link in a web browser on a computer with Internet connection.
8. You will be directed to the TXOne **License File Management** screen. Specify your license key in the **License Key** field, and then click **Download**.

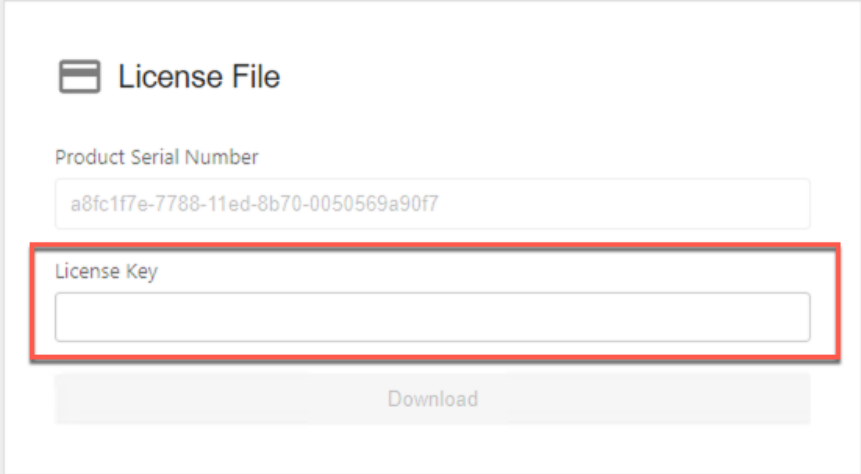


FIGURE 8-8. TXOne License File Management

9. A pop-up window appears showing the license information. Read it carefully and click **Yes** for downloading the license file.

New License Key/File

If users need to activate a new license key or license file, follow below procedures.

Procedure

1. Go to **Administration** > **License**.
2. Click **New License Key / File**.

3. The **New License** window appears. Choose one of the ways:
   - Click **License Key** and specify the new license key in the text field below.
   - Click **License File** and select the license file (a `.txt` file) to import.

Note

If you don't have the license file on hand, refer to *Getting the License File on page 8-30*.

4. Click **Apply**.
5. A message with **The License is activated successfully** appears.

License Editions

See below as the three kinds of license editions for the TXOne Stellar 3.0. The StellarProtect supports Windows 7 or later versions; the StellarProtect (Legacy Mode) supports legacy platforms such as Windows XP/2000.

TABLE 8-5. License Editions

EDITION	PRIMARY FUNCTION	DURATION
StellarICS	StellarProtect Agent: • Multi-Method Threat Prevention (Real-Time Scan) • Application Lockdown	Annual
	StellarProtect (Legacy Mode) Agent: • Threat Prevention (Real-Time Scan) • Application Lockdown	

Edition	Primary Function	Duration
StellarKiosk	StellarProtect Agent: • Multi-Method Threat Prevention (Real-Time Scan) StellarProtect (Legacy Mode) Agent: • Threat Prevention (Real-Time Scan) • Application Lockdown	Annual **Note** StellarKiosk was named StellarMix before the TXOne Stellar version 2.0.
StellarOEM	StellarProtect Agent: • Application Lockdown StellarProtect (Legacy Mode) Agent: • Application Lockdown	Perpetual **Note** • StellarOEM provides permanent use and 5-year technical support for the TXOne Stellar. • This license edition does not support features such as scan and agent component update. • StellarOEM was named Perpetual before the TXOne Stellar version 2.0.

Features of License Editions

StellarICS, StellarKiosk, and StellarOEM license editions provides different features, allowing users in diverse industries to select based on their specific needs.

TABLE 8-6. Features of License Editions

FEATURES	STELLARICS	STELLARKIOSK	STELLAROEM
Multi-Method Threat Prevention	√	√	-
Operation/Application Lockdown	√	Windows XP/2000 only	√
Operations Behavior Anomaly Detection	√	√	√
Industrial Application and Certificate Repository	√	-	√
OT Application Safeguard	√	-	√
Intelligent Runtime Learning (Predictive Machine Learning)	√	-	√
Trusted USB Device Control	√	√	√
Legacy Systems Compatibility	√	√	√

System

Topics in this section includes:

System Time

You can configure the system time settings for the StellarOne web console.

Procedure

1. Go to **Administration** > **System Time**.
2. Two options are available for configuring StellarOne system time. In the **Date and Time** section:
   - If you want to set the system time manually, click the Edit icon to specify the date and time, and then click **Apply** to save the setting.
   - If you want to align StellarOne system time with an NTP server, click the **Synchronize system time with an NTP server** toggle to enable it. Click **Test Synchronization** to check if the sync was successful.

   Note

   The default NTP server is pool.ntp.org.
3. In the **Time Zone** section, click the downward arrow in the blank bar. A drop-down menu with global time zone appears.
4. Select the appropriate time zone for the system, and then click **Save** to complete the settings.

Log Purge

This feature allows users to manage the volume of log files for optimizing the disk space usage for StellarOne.

Procedure

1. Go to **Administration** > **Log Purge**.
2. Choose one of the ways listed below for log purge settings.
   - **Purge Now**:

     Use this setting to purge logs immediately.

     a. Click the drop-down menu next to **Purge**, and then select the log types to be purged.
        - All Logs
        - Agent Events
        - Server Events
        - System Log
        - Audit Log

     b. Click the drop-down menu next to **older than**, and then select a specified time frame. The files generated before the selected time frame will be removed.
        - No limit
        - 1 month(s), 2 months(s), 3 months(s), 6 months(s), 12 months(s), 18 months(s), 24 months(s), 36 months(s), 48 months(s), 60 months(s)

     c. Click the drop-down menu next to **keep at least**, and then select the minimum number of log entries to keep.
        - 0 entries
        - 10,000 entries, 50,000 entries, 100,000 entries, 500,000 entries, 1,000,000 entries, 5,000,000 entries, 10,000,000 entries

     d. Click **Purge Now** and the event logs will be immediately purged.

- **Automatic Purge**:

  Use this setting to set an automatic purge once per day.

  a. Specify the log types you want to purge: **Agent Events**, **Server Events**, **System Log**, or **Audit Log**.

  b. Click the drop-down menu next to **older than**, and then select a specified time frame. The files generated before the time frame will be removed.

     - No limit
     - 1 month(s), 2 months(s), 3 months(s), 6 months(s), 12 months(s), 18 months(s), 24 months(s), 36 months(s), 48 months(s), 60 months(s)

  c. Click the drop-down menu next to **Keep at least**, and then select the minimum number of log entries to keep.

     - 10,000 entries, 50,000 entries, 100,000 entries, 500,000 entries, 1,000,000 entries, 5,000,000 entries, 10,000,000 entries

  d. Click **Save**, and the event logs will be automatically purged once per day.

Importing SSL Certificate

Procedure

1. Go to **Administration** > **SSL Certificate**.
2. Click **Import Certificate**, and then the **Import Certificate** window appears.
   - Click the **Select file...** next to the **Certificate** option to select the target certificate.
   - Click the **Select file...** next to the **Private Key** option to select the target private key.

- (Optional) Specify the passphrase in the **Passphrase** text field.

Note

Supported certificate and private key formats include:

- Certificate and private key in PEM format
- Private key in PKCS #1 format with or without encryption
- Private key in PKCS #8 format without encryption

3. Click **Import and Restart** to start importing the target certificate.

Note

Importing the certificate requires restarting the StellarOne console.

OT Intelligent Trust

When enabled, TXOne OT Intelligent Trust shares anonymous threat information with the Smart Protection Network, allowing TXOne to rapidly indentify and address new threats. You can disable TXOne OT Intelligent Trust anytime on this console.

Procedure

1. Go to **Administration** > **OT Intelligent Trust** .
2. Click the **Learn More** for visiting TXOne's OT threat research website.
3. To enable TXOne OT Intelligent Trust, toggle on the **Enable TXOne OT Intelligent Trust (recommended)**.

Service Integration

Integrate with Trend Micro Vision One

Users can query for StellarOne malware detection logs via Trend Micro Vision One Search app.

Important

Be sure to complete the deployment of Trend Micro Vision One Service Gateway and enable **Forward proxy** function first, and then obtain the information for Service Gateway settings required in *Step 2* and *Step 3*. Please contact your support provider for more information.

Procedure

1. On StellarOne console, go to **Administration** > **Service Integration**.
2. Specify the IP address and API key of Trend Micro Vision One Service Gateway in **Service Gateway Address** and **Service Gateway API Key**.

   Note

   The IP address and API key should be obtained from the Trend Micro Vision One Service Gateway Virtual Appliance.

3. Specify the Trend Micro Vision One enrollment token in **Product Connector Enrollment Token**.

   Note

   The enrollment token is required to register StellarOne to Trend Micro Vision One. The enrollment token will expire within 24 hours if not used after generated from the Vision One Product Connector app.

4. Click **Test Connection** and a success message should appear.
5. Find **Forward Logs to Vision One** section, and then toggle on **Send StellarOne malware detection logs to Vision One**.
6. The **Log Sending Interval** menu appears. Select the frequency in the drop-down menu for sending StellarOne detection logs to Trend Micro Vision One.
7. Click **Save** to complete the settings.

Note

If StellarOne has connected with Trend Micro Vision One successfully, the **Vision One Onboarding Status** should display **Connected**.

Chapter 9

Technical Support

Support for TXOne Networks products is provided mutually by TXOne Networks and Trend Micro. All technical support goes through TXone and Trend Micro engineers.

Learn about the following topics:

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 https://success.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:

   https://success.trendmicro.com/smb-new-request

   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 and TXOne 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 https://www.trendmicro.com/vinfo/us/threat-encyclopedia/#malware and https://www.encyclopedia.txone.com/ 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 and TXOne

In the United States, Trend Micro and TXOne representatives are available by below contact information:

TABLE 9-1. Trend Micro Contact Information

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	https://www.trendmicro.com
Email address	support@trendmicro.com

TABLE 9-2. TXOne Contact Information

Address	TXOne Networks, Incorporated 222 West Las Colinas Boulevard, Suite 1650 Irving, TX 75039 U.S.A
Website	https://www.txone.com
Email address	support@txone.com

- Worldwide support offices:

https://www.trendmicro.com/us/about-us/contact/index.html

https://www.txone.com/contact/

- Trend Micro product documentation:

  https://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:

https://success.trendmicro.com/solution/1059565

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):

https://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, TXOne Networks 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:

https://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.

Appendix A

Appendices

Topics in this section include:

Log Descriptions

Topics in this section include:

Log Descriptions for StellarProtect

Topics in this section include:

Agent Event Log Descriptions for StellarProtect

This table details the Windows event log descriptions for StellarProtect.

Event ID	Level	Category	Event	Details
256	Information	System	Service has started.	
257	Information	System	Policy has been applied successfully. (Version: %version%)	
258	Information	System	Patch has been applied. File Name: %file_name%	

Event ID	Level	Category	Event	Details
259	Information	System	Patching in progress	After the earlier-applied patch is completed, the system will automatically try to apply this patch: %deferred_file_name%.
513	Information	intelli_av	Application vault update was successful	
514	Information	intelli_av	Real Time Scan has been enabled.	
515	Information	intelli_av	A scheduled scan has started.	
516	Information	intelli_av	A scheduled scan has ended.	Folders scanned: %1 Symbolic links: %2 Regular files: %3 Files scanned: %4 Files passed: %5 Threats detected: %6
517	Information	intelli_av	A manually launched scan has started.	

Event ID	Level	Category	Event	Details
518	Information	intelli_av	A manually launched scan has ended.	Folders scanned: %1 Symbolic links: %2 Regular files: %3 Files scanned: %4 Files passed: %5 Threats detected: %6
519	Information	intelli_av	A scheduled scan has been enabled.	Next scan will be on %NextScan %.
520	Information	intelli_av	A scheduled scan has been disabled.	
521	Information	intelli_av	A scan manually launched by local user has started.	
522	Information	intelli_av	A scan manually launched by local user has ended.	Folders scanned: %1 Symbolic links: %2 Regular files: %3 Files scanned: %4 Files passed: %5 Threats detected: %6

Event ID	Level	Category	Event	Details
768	Information	anomaly_detect	Operations Behavior Anomaly Detection (Script Behavior) has been enabled.	Mode: %Mode% Level: %Level% Learning time: %LearningTime % day(s)
769	Information	anomaly_detect	Script behavior has been added to the Situational Awareness baseline.	Access User: %USERNAME% ID: %ID% Target Process: %PATH% %ARGUMENT% Parent Process 1: %PATH% %ARGUMENT% Parent Process 2: %PATH% %ARGUMENT% Parent Process 3: %PATH% %ARGUMENT% Parent Process 4: %PATH% %ARGUMENT%

Event ID	Level	Category	Event	Details
770	Information	anomaly_detect	A script behavior has been excluded from the Situational Awareness baseline.	ID: %ID% Target Process: %PATH% %ARGUMENT% Parent Process 1: %PATH% %ARGUMENT% Parent Process 2: %PATH% %ARGUMENT% Parent Process 3: %PATH% %ARGUMENT% Parent Process 4: %PATH% %ARGUMENT%
771	Information	anomaly_detect	Operations Behavior Anomaly Detection (User Login) has been enabled.	Mode: %Mode% Level: %Level% Learning time: %LearningTime % day(s)
772	Information	anomaly_detect	Operations Behavior Anomaly Detection (Application Behavior) has been enabled.	Mode: %Mode% Level: %Level% Learning time: %LearningTime % day(s)

Event ID	Level	Category	Event	Details
773	Information	anomaly_detect	A user login account has been added to the Situational Awareness baseline.	Domain: %Domain% Account: %Account% Login Type: %LoginType% Source IP: %IP%
774	Information	anomaly_detect	A user login account has been excluded from the Situational Awareness baseline.	Domain: %Domain% Account: %Account% Login Type: %LoginType% Source IP: %IP%
775	Information	anomaly_detect	An application has been added to the Situational Awareness baseline.	Application Path: %Path%
776	Information	anomaly_detect	An application has been excluded from the Situational Awareness baseline.	Application Path: %Path%
784	Information	anomaly_detect	DLL Injection Prevention has been enabled.	
1280	Information	device_control	Device Control has been enabled.	

Event ID	Level	Category	Event	Details
1281	Information	device_control	Trusted USB device has been added.	Vendor ID: %HEX% Product ID: %HEX% Serial Number: %STRING% Type: permanent or one time
1282	Information	device_control	Trusted USB device has been removed.	Vendor ID: %HEX% Product ID: %HEX% Serial Number: %STRING%
1792	Information	lockdown	File access has been allowed: %PATH%	Access Image Path: %PATH% Access User: %USERNAME% Mode: %MODE% List: %LIST%
1793	Information	lockdown	A new file has been added to Approved List in Maintenance Mode.	Path: %PATH% Hash: %SHA256_HEXSTR%
1794	Information	lockdown	The hash of an existing file in Approved List has been updated in Maintenance Mode.	Path: %PATH% Hash: %SHA256_HEXSTR%

Event ID	Level	Category	Event	Details
1795	Information	lockdown	Approved List initialization has started.	
1796	Information	lockdown	Approved List initialization has completed	Count: %COUNT %
1797	Information	lockdown	Application Lockdown has been enabled	Mode: %MODE%
1798	Information	lockdown	DLL/Driver Lockdown has been enabled.	
1799	Information	lockdown	Script Lockdown has been enabled.	
1800	Information	lockdown	Intelligent Runtime Learning has been enabled.	
2048	Information	update	Component update has started.	
2049	Information	update	Component update has ended.	

Event ID	Level	Category	Event	Details
2050	Information	update	Scheduled component update has been enabled. Next update will be on %NEXT_UPDATE_LOCAL_TIME_STR% (agent's local system time).	
2051	Information	update	Scheduled component update has been disabled.	
3840	Information	misc	User account has been enabled.	
3841	Information	misc	User account has been disabled.	
3842	Information	misc	User password has been changed.	
4352	Warning	system	Service has stopped.	
4353	Warning	system	Unable to apply policy (Version: %version%)	

Event ID	Level	Category	Event	Details
4354	Warning	system	Unable to update file.	Source Path: %src_path% Destination Path: %dst_path% Error Code: %err_code%
4355	Warning	system	Unable to apply patch.	File Name: %file_name% Error Code: %err_code%
4609	Warning	intelli_av	Incoming Files Scanned, Action Taken by Antivirus: %PATH%	Incoming files were scanned by antivirus. Action was taken according to settings. File Path: %PATH% File Hash: %STRING% Threat Type: %STRING% Threat Name: %STRING% Action Result: %INTEGER% Quarantine Path: %PATH%

Event ID	Level	Category	Event	Details
4610	Warning	intelli_av	Incoming Files Scanned, Action Taken by Next-Generation Antivirus: %PATH%	Incoming files were scanned by next-generation antivirus. Action was taken according to settings. File Path: %PATH% File Hash: %STRING% Threat Type: %STRING% Threat Name: %STRING% Action Result: %INTEGER% Quarantine Path: %PATH%

Event ID	Level	Category	Event	Details
4611	Warning	intelli_av	Local Files Scanned, Action Taken by Antivirus: %PATH%	Local files were scanned by antivirus. Action was taken according to settings. File Path: %PATH% File Hash: %STRING% Threat Type: %STRING% Threat Name: %STRING% Action Result: %INTEGER% Quarantine Path: %PATH%

Event ID	Level	Category	Event	Details
4612	Warning	intelli_av	Local Files Scanned, Action Taken by Next-Generation Antivirus: %PATH%	Local files were scanned by next-generation antivirus. Action was taken according to settings. File Path: %PATH% File Hash: %STRING% Threat Type: %STRING% Threat Name: %STRING% Action Result: %INTEGER% Quarantine Path: %PATH%
4613	Warning	intelli_av	Suspicious Program Execution Blocked	Suspicious program execution was blocked. File Path: %PATH% File Hash: %STRING%

Event ID	Level	Category	Event	Details
4614	Warning	intelli_av	Suspicious Program Currently Running	Suspicious program is currently running. Process ID: %PID% File Path: %PATH% File Hash: %STRING% File Credibility: %STRING%
4615	Warning	intelli_av	Application Execution Blocked By Antivirus	Application execution was blocked by antivirus. Process Image Path: %PATH% File Hash: %STRING% Threat Type: %STRING% Threat Name: %STRING%

Event ID	Level	Category	Event	Details
4617	Warning	intelli_av	Application Execution Blocked By Next-Generation Antivirus	Application execution was blocked by next-generation antivirus. Process Image Path: %PATH% File Hash: %STRING% Threat Type: %STRING% Threat Name: %STRING%
4864	Warning	anomaly_detect	Operations Behavior Anomaly Detection (Script Behavior) has been disabled.	

Event ID	Level	Category	Event	Details
4865	Warning	anomaly_detect	Script Behavior has been allowed by Operations Behavior Anomaly Detection: %PATH%	Access User: %USERNAME% Parent Process 1: %PATH% %ARGUMENT% Parent Process 2: %PATH% %ARGUMENT% Parent Process 3: %PATH% %ARGUMENT% Parent Process 4: %PATH% %ARGUMENT% Mode: %Mode% Level: %LEVEL%
4866	Warning	anomaly_detect	Script Behavior has been blocked by Operations Behavior Anomaly Detection: %PATH%	Access User: %USERNAME% Parent Process 1: %PATH% %ARGUMENT% Parent Process 2: %PATH% %ARGUMENT% Parent Process 3: %PATH% %ARGUMENT% Parent Process 4: %PATH% %ARGUMENT% Mode: %Mode% Level: %LEVEL%

Event ID	Level	Category	Event	Details
4867	warning	anomaly_detect	Operations Behavior Anomaly Detection (User Login) has been disabled.	
4868	warning	anomaly_detect	Operations Behavior Anomaly Detection (Application Behavior) has been disabled.	
4869	warning	anomaly_detect	A user login failure has been detected by Operations Behavior Anomaly Detection.	Domain: %Domain% Account: %Account% Login Type: %LoginType% Source IP: %IP%
4870	warning	anomaly_detect	An abnormal user login has been detected by Operations Behavior Anomaly Detection.	Domain: %Domain% Account: %Account% Login Type: %LoginType% Source IP: %IP%

Event ID	Level	Category	Event	Details
4871	warning	anomaly_detect	Suspicious application behavior has been detected by Operations Behavior Anomaly Detection.	Program Path: %Path% Program Hash: %SHA256% Program Size: %Size% Certificate: %CertificateSigner% Vendor: %VendorName% Product: %Product%
4872	warning	anomaly_detect	An unrecognized application has been detected by Operations Behavior Anomaly Detection.	PID: %PID% Program Path: %Path% Program Hash: %SHA256% Program Size: %Size% Certificate: %CertificateSigner% Vendor: %VendorName% Product: %Product%

Event ID	Level	Category	Event	Details
4873	warning	anomaly_detect	Malicious application behavior has been detected by Operations Behavior Anomaly Detection	Program Path: %Path% Program Hash: %SHA256% Program Size: %Size% Certificate: %CertificateSigner% Vendor: %VendorName% Product: %Product%
4880	Warning	anomaly_detect	DLL Injection Prevention has been disabled.	
5120	Warning	change_control	Change to an ICS file was blocked by OT Application Safeguard.	Blocked Process: %PATH% Target File: %PATH%
5121	Warning	change_control	Manipulation to existing ICS process was blocked by OT Application Safeguard.	Blocked Process: %PATH% Target Process: %PATH%
5376	Warning	device_control	Device Control has been disabled.	

Event ID	Level	Category	Event	Details
5377	Warning	device_control	USB access has been blocked: %PATH%	Access Image Path: %PATH% Access User: %USERNAME% Vendor ID: %HEX% Product ID: %HEX% Serial Number: %STRING%
5888	Warning	lockdown	File access has been allowed: %PATH%	Access Image Path: %PATH% Access User: %USERNAME% Mode: %MODE% Reason: %ALLOWED_REASON% File hash allowed: %SHA256_HEXSTR% %THROTTLING_INFO_MSG%

Event ID	Level	Category	Event	Details
5889	Warning	lockdown	File access has been blocked: C:\object_file_path	Access Image Path: %PATH% Access User: %USERNAME% Mode: %MODE% Reason: %BLOCKED_REASON% File hash blocked: %SHA256_HEXSTR% %THROTTLING_INFO_MSG%
5890	Warning	lockdown	Unable to add to or update Approved List: %PATH%	
5891	Warning	lockdown	Application Lockdown has been disabled	
5892	Warning	lockdown	DLL/Driver Lockdown has been disabled.	
5893	Warning	lockdown	Script Lockdown has been disabled.	
5894	Warning	lockdown	Intelligent Runtime Learning has been disabled.	
5895	Warning	lockdown	Approved List initialization has been canceled.	

Event ID	Level	Category	Event	Details
8706	Critical	intelli_av	Real-Time Scan has been disabled.	
9216	Critical	change_control	The Maintenance Mode has now started.	
9217	Critical	change_control	The Maintenance Mode has now ended.	

Server Event Log Descriptions for StellarProtect

This table lists the server event log descriptions for StellarProtect.

Event ID	Event
33027	Switch agent (%s) to policy mode
33028	Switch agent (%s) to individual mode
33029	Deploy policy with version: %s
33041	Modify in common use (DLL Injection Prevention, Device Control, OT Application Safeguard, OBAD) setting for [%s] group policy with version: %s
33042	Modify real-time scan settings for [%s] group policywith version: %s
33043	Modify schedule scan settings for [%s] group policywith version: %s
33044	Maintain Device Control list for [%s] group policy with version: %s
33045	Maintain User-Defined Suspicious Object list for [%s] group policy with version: %s
33046	Maintain Operations Behavior Anomaly Detection Watch List for [%s] group policy with version: %s

Event ID	Event
33047	Maintain Trusted Certification list for [%s] group policy with version: %s
33048	Maintain OT Application Safeguard list for [%s] group policy with version: %s
33049	Modify agent password for [%s] group policy with version: %s
33056	Modify available patch setting for [%s] group policy with version: %s
33057	Maintain an authorized process for [%s] group policy with version: %s
33058	Modify schedule update settings for [%s] group policy with version: %s
33059	Modify lockdown config for [%s] group policy with version: %s
33105	Send individual command to agent (%s)
33106	Send protection command <Configure Maintenance Mode> to agents
33107	Send protection command <Scan Now> to agents
33108	Send update command <Update Agent Component> to agents
33109	Send update command <Deploy Agent Patches> to agents
33110	Send protection command <Initialize Lockdown Approved List> to agents
33111	Send update command <Check Connections> to agents
33112	Send update command <Apply Policies> to agents
33121	Apply event action to agent (%AGENT_NAME%)
33122	Apply event action <%ACTION_TYPE%> to agent(s)
37122	Set activation code with policy version: %s
37123	Active agents
37124	Inactive agents

Log Descriptions for StellarProtect (Legacy Mode)

Topics in this section include:

Agent Event Log Descriptions for StellarProtect (Legacy Mode)

This table details the Windows event log descriptions for StellarProtect (Legacy Mode).

Event ID	Level	Category	Event	Details
1000	Information	System	Service started	
1001	Warning	System	Service stopped	
1002	Information	System	Application Lockdown Turned On	
1003	Warning	System	Application Lockdown Turned Off	
1004	Information	System	Disabled	
1005	Information	System	Administrator password changed	
1006	Information	System	User password changed	
1007	Information	System	User account enabled	
1008	Information	System	User account disabled	
1009	Information	System	Product activated	
1010	Information	System	Product deactivated	

Event ID	Level	Category	Event	Details
1011	Warning	System	License Expired. Grace period enabled.	
1012	Warning	System	License Expired. Grace period ended.	
1013	Information	System	Product configuration import started: %path%	
1014	Information	System	Product configuration import completed: %path%	
1015	Information	System	Product configuration exported to: %path%	
1016	Information	System	USB Malware Protection set to Allow	
1017	Information	System	USB Malware Protection set to Block	
1018	Information	System	USB Malware Protection enabled	
1019	Warning	System	USB Malware Protection disabled	
1025	Information	System	Memory Randomization enabled	

Event ID	Level	Category	Event	Details
1026	Warning	System	Memory Randomization disabled	
1027	Information	System	API Hooking Prevention set to Allow	
1028	Information	System	API Hooking Prevention set to Block	
1029	Information	System	API Hooking Prevention enabled	
1030	Warning	System	API Hooking Prevention disabled	
1031	Information	System	DLL Injection Prevention set to Allow	
1032	Information	System	DLL Injection Prevention set to Block	
1033	Information	System	DLL Injection Prevention enabled	
1034	Warning	System	DLL Injection Prevention disabled	
1035	Information	System	Pre-defined Trusted Update enabled	
1036	Information	System	Pre-defined Trusted Update disabled	

Event ID	Level	Category	Event	Details
1037	Information	System	DLL/Driver Lockdown enabled	
1038	Warning	System	DLL/Driver Lockdown disabled	
1039	Information	System	Script Lockdown enabled	
1040	Warning	System	Script Lockdown disabled	
1041	Information	System	Script added	File extension: %extension% Interpreter: %interpreter%
1042	Information	System	Script removed	File extension: %extension% Interpreter: %interpreter%
1044	Information	System	Exception path enabled	
1045	Information	System	Exception path disabled	
1047	Information	System	Trusted certificate enabled	
1048	Information	System	Trusted certificate disabled	
1049	Information	System	Write Protection enabled	
1050	Warning	System	Write Protection disabled	

Event ID	Level	Category	Event	Details
1051	Information	System	Write Protection set to Allow	
1052	Information	System	Write Protection set to Block	
1055	Information	System	Added file to Write Protection List Path: %path%	
1056	Information	System	Removed file from Write Protection List Path: %path%	
1057	Information	System	Added file to Write Protection Exception List Path: %path% Process: %process%	
1058	Information	System	Removed file from Write Protection Exception List Path: %path% Process: %process%	
1059	Information	System	Added folder to Write Protection List Path: %path% Scope: %scope%	

Event ID	Level	Category	Event	Details
1060	Information	System	Removed folder from Write Protection List Path: %path% Scope: %scope%	
1061	Information	System	Added folder to Write Protection Exception List Path: %path% Scope: %scope% Process: %process%	
1062	Information	System	Removed folder from Write Protection Exception List Path: %path% Scope: %scope% Process: %process%	
1063	Information	System	Added registry value to Write Protection List Registry Key: %regkey% Registry Value Name: %regvalue %	
1064	Information	System	Removed registry value from Write Protection List	

Event ID	Level	Category	Event	Details
			Registry Key: %regkey% Registry Value Name: %regvalue%	
1065	Information	System	Added registry value to Write Protection Exception List Registry Key: %regkey% Registry Value Name: %regvalue% Process: %process%	
1066	Information	System	Removed registry value from Write Protection Exception List Registry Key: %regkey% Registry Value Name: %regvalue% Process: %process%	
1067	Information	System	Added registry key to Write Protection List Path: %regkey% Scope: %scope%	

Event ID	Level	Category	Event	Details
1068	Information	System	Removed registry key from Write Protection List Path: %regkey% Scope: %scope%	
1069	Information	System	Added registry key to Write Protection Exception List Path: %regkey% Scope: %scope% Process: %process%	
1070	Information	System	Removed registry key from Write Protection Exception List Path: %regkey% Scope: %scope% Process: %process%	
1071	Information	System	Custom Action set to Ignore	
1072	Information	System	Custom Action set to Quarantine	
1073	Information	System	Custom Action set to Ask StellarOne	
1074	Information	System	Quarantined file is restored.	Original Location: %path% Source: %source %

Event ID	Level	Category	Event	Details
1075	Information	System	Quarantined file is deleted.	Original Location: %path% Source: %source %
1076	Information	System	Integrity Monitoring enabled	
1077	Information	System	Integrity Monitoring disabled	
1078	Information	System	Root cause analysis report unsuccessful	Access Image Path: %path%
1079	Information	System	Server certification imported: %path %	
1080	Information	System	Server certification exported: %path %	
1081	Information	System	Managed mode configuration imported: %path %	
1082	Information	System	Managed mode configuration exported: %path %	
1083	Information	System	Managed mode enabled	
1084	Information	System	Managed mode disabled	

Event ID	Level	Category	Event	Details
1085	Information	System	Protection applied to Write Protection List and Approved List while Write Protection is enabled	
1086	Warning	System	Protection applied to Write Protection List while Write Protection is enabled.	
1088	Information	System	Windows Update Support enabled	
1089	Information	System	Windows Update Support disabled	
1094	Information	System	Applied a patch to agent by StellarOne File applied: %file_name%	
1096	Information	System	Trusted hash enabled	
1097	Information	System	Trusted hash disabled	
1099	Information	System	Storage device access set to Allow	
1100	Information	System	Storage device access set to Block	

Event ID	Level	Category	Event	Details
1101	Information	System	Storage device control enabled	
1102	Warning	System	Storage device control disabled	
1103	Information	System	Event Log settings changed	Windows Event Log: %ON|off% Level: Warning Log: %ON|off% Information Log: %ON|off% System Log: %ON|off% Exception Path Log: %ON|off% Write Protection Log: %ON|off% List Log: %ON|off% Approved Access Log: DllDriver Log: %ON|off% Trusted Updater Log: %ON|off% Exception Path Log: %ON|off% Trusted Certification Log: %ON|off% Trusted Hash Log: %ON|off% Write Protection Log: %ON|off%

Event ID	Level	Category	Event	Details
				Blocked Access Log: %ON|off% USB Malware Protection Log: %ON|off% Execution Prevention Log: %ON|off% Integrity Monitoring Log File Created Log: %ON|off% File Modified Log: %ON|off% File Deleted Log: %ON|off% File Renamed Log: %ON|off% RegValue Modified Log: %ON|off% RegValue Deleted Log: %ON|off% RegKey Created Log: %ON|off% RegKey Deleted Log: %ON|off% RegKey Renamed Log: %ON|off% Device Control Log: %ON|off% Debug Log: %ON|off%

Event ID	Level	Category	Event	Details
1104	Warning	System	Memory Randomization is not available in this version of Windows.	
1105	Information	System	Blocked File Notification enabled	
1106	Information	System	Blocked File Notification disabled	
1107	Information	System	Administrator password changed remotely	
1111	Information	System	Fileless Attack Prevention enabled	
1112	Warning	System	Fileless Attack Prevention disabled	
1500	Information	List	Trusted Update started.	
1501	Information	List	Trusted Update stopped.	
1502	Information	List	Approved List import started: %path%	
1503	Information	List	Approved List import complete: %path%	
1504	Information	List	Approved List exported to: %path%	

Event ID	Level	Category	Event	Details
1505	Information	List	Added to Approved List: %path%	
1506	Information	List	Added to Trusted Updater List: %path%	
1507	Information	List	Removed from Approved List: %path%	
1508	Information	List	Removed from Trusted Updater List: %path%	
1509	Information	List	Approved List updated: %path%	
1510	Information	List	Trusted Updater List updated: %path%	
1511	Warning	List	Unable to add to or update Approved List: %path%	
1512	Warning	List	Unable to add to or update Trusted Updater List: %path%	
1513	Information	System	Added to Exception Path List	Type: %exceptionpathtype% Path: %exceptionpath%

Event ID	Level	Category	Event	Details
1514	Information	System	Removed from Exception Path List	Type: %exceptionpathtype% Path: %exceptionpath%
1515	Information	System	Added to Trusted Certification List	Label: %label% Hash: %hashvalue% Type: %type% Subject: %subject% Issuer: %issuer%
1516	Information	System	Removed from Trusted Certification List	Label: %label% Hash: %hashvalue% Type: %type% Subject: %subject% Issuer: %issuer%
1517	Information	System	Added to Trusted Hash List.%n	Label : %label% Hash : %hashvalue% Type : %type% Add to Approved List: %yes|no% Path : %path% Note: %note%

Event ID	Level	Category	Event	Details
1518	Information	System	Removed from Trusted Hash List.%n	Label : %label% Hash : %hashvalue% Type : %type% Add to Approved List: %yes|no% Path : %path% Note: %note%
1519	Information	List	Removed from Approved List remotely: %path %	
1520	Warning	List	Unable to create Approved List because an unexpected error occurred during enumeration of the files in %1 %n Error Code: %2 %n	
1521	Information	System	Added Fileless Attack Prevention exception	Label : %label% Target Process: %process_name % Arguments: %arguments% %regex_flag% Parent Process 1 Image Path: %path%

Event ID	Level	Category	Event	Details
				Parent Process 2 Image Path: %path% Parent Process 3 Image Path: %path% Parent Process 4 Image Path: %path%
1522	Information	System	Removed Fileless Attack Prevention exception	Label : %label% Target Process: %process_name% Arguments: %arguments% %regex_flag% Parent Process 1 Image Path: %path% Parent Process 2 Image Path: %path% Parent Process 3 Image Path: %path% Parent Process 4 Image Path: %path%
1523	Information	System	Maintenance Mode started	
1524	Information	System	Leaving Maintenance Mode	

Event ID	Level	Category	Event	Details
1525	Information	System	Maintenance Mode stopped	
1526	Information	List	Added to Approved List in Maintenance Mode Path: %1 Hash: %2	
1527	Information	List	Approved List updated in Maintenance Mode Path: %1 Hash: %2	
2000	Information	Access Approved	File access allowed: %path%	Access Image Path: %path% Access User: %username% Mode: %mode% List: %list%
2001	Warning	Access Approved	File access allowed: %path%	Access Image Path: %path% Access User: %username% Mode: %mode% File Hash allowed: %hash%
2002	Warning	Access Approved	File access allowed: %path% Unable to get the file path while	Access Image Path: %path% Access User: %username%

Event ID	Level	Category	Event	Details
			checking the Approved List	Mode: %mode%
2003	Warning	Access Approved	File access allowed: %path% Unable to calculate hash while checking the Approved List	Access Image Path: %path% Access User: %username% Mode: %mode%
2004	Warning	Access Approved	File access allowed: %path% Unable to get notifications to monitor process	
2005	Warning	Access Approved	File access allowed: %path% Unable to add process to non exception list	
2006	Information	Access Approved	File access allowed: %path%	Access Image Path: %path% Access User: %username% Mode: %mode%
2007	Warning	Access Approved	File access allowed: %path% An error occurred while checking the Exception Path List	Access Image Path: %path% Access User: %username% Mode: %mode%
2008	Warning	Access Approved	File access allowed: %path% An error occurred while checking	Access Image Path: %path% Access User: %username%

Event ID	Level	Category	Event	Details
			the Trusted Certification List	Mode: %mode%
2011	Information	Access Approved	Registry access allowed Registry Key: %regkey% Registry Value Name: %regvalue%	Access Image Path: %path% Access User: %username% Mode: %mode%
2012	Information	Access Approved	Registry access allowed Registry Key: %regkey%	Access Image Path: %path% Access User: %username% Mode: %mode%
2013	Information	Access Approved	Change of File/ Folder allowed by Exception List: %path%	Access Image Path: %path% Access User: %username% Mode: %mode%
2015	Information	Access Approved	Change of Registry Value allowed by Exception List Registry Key: %regkey% Registry Value Name: %regvalue%	Access Image Path: %path% Access User: %username% Mode: %mode%
2016	Information	Access Approved	Change of Registry Key allowed by Exception List	Access Image Path: %path% Access User: %username%

Event ID	Level	Category	Event	Details
			Registry Key: %regkey%	Mode: %mode%
2017	Warning	Access Approved	Change of File/ Folder allowed: %path%	Access Image Path: %path% Access User: %username% Mode: %mode%
2019	Warning	Access Approved	Change of Registry Value allowed Registry Key: %regkey% Registry Value Name: %regvalue%	Access Image Path: %path% Access User: %username% Mode: %mode%
2020	Warning	Access Approved	Change of Registry Key allowed Registry Key: %regkey%	Access Image Path: %path% Access User: %username% Mode: %mode%
2021	Warning	Access Approved	File access allowed: %path% An error occurred while checking the Trusted Hash List	Access Image Path: %path% Access User: %username% Mode: %mode%
2022	Warning	Access Approved	Process allowed by Fileless Attack Prevention: %path% %argument%	Access User: %username% Parent Process 1 Image Path: %path%

Event ID	Level	Category	Event	Details
				Parent Process 2 Image Path: %path% Parent Process 3 Image Path: %path% Parent Process 4 Image Path: %path% Mode: Unlocked Reason: %reason%
2503	Warning	Access Blocked	Change of File/ Folder blocked: %path%	Access Image Path: %path% Access User: %username% Mode: %mode%
2505	Warning	Access Blocked	Change of Registry Value blocked. Registry Key: %regkey% Registry Value Name: %regvalue%	Access Image Path: %path% Access User: %username% Mode: %mode%
2506	Warning	Access Blocked	Change of Registry Key blocked. Registry Key: %regkey%	Access Image Path: %path% Access User: %username% Mode: %mode%

Event ID	Level	Category	Event	Details
2507	Information	Access Blocked	Action completed successfully: %path%	Action: %action% Source: %source %
2508	Warning	Access Blocked	Unable to take specified action: %path%	Action: %action% Source: %source %
2509	Warning	Access Blocked	File access blocked: %path%	Access Image Path: %path% Access User: %username% Mode: %mode% Reason: Not in Approved List File Hash blocked: %hash%
2510	Warning	Access Blocked	File access blocked: %path%	Access Image Path: %path% Access User: %username% Mode: %mode% Reason: Hash does not match expected value File Hash blocked: %hash%
2511	Information	Access Blocked	Change of File/ Folder blocked: %path%	Access Image Path: %path% Access User: %username% Mode: %mode%

Event ID	Level	Category	Event	Details
2512	Warning	Access Blocked	Change of Registry Value blocked. Registry Key: %regkey% Registry Value Name: %regvalue%	Access Image Path: %path% Access User: %username% **Note** Enabling the Service Creation Prevention feature triggers Event ID 2512.
2513	Warning	Access Blocked	Process blocked by Fileless Attack Prevention: %path% %argument%	Access User: %username% Parent Process 1 Image Path: %path% Parent Process 2 Image Path: %path% Parent Process 3 Image Path: %path% Parent Process 4 Image Path: %path% Mode: locked Reason: %reason%

Event ID	Level	Category	Event	Details
2514	Warning	Access Blocked	File access blocked: %BLOCKED_FILE_PATH%	Access Image Path: %PARENT_PROCESS_PATH% Access User: %USER_NAME% Reason: Blocked file is in a folder that has the case sensitive attribute enabled.
3000	Warning	USB Malware Protection	Device access allowed: %path%	Access Image Path: %path% Access User: %username% Device Type: %type%
3001	Warning	USB Malware Protection	Device access blocked: %path%	Access Image Path: %path% Access User: %username% Device Type: %type%
4000	Warning	Process Protection Event	API Hooking/DLL Injection allowed: %path%	Threat Image Path: %path% Threat User: %username%
4001	Warning	Process Protection Event	API Hooking/DLL Injection blocked: %path%	Threat Image Path: %path% Threat User: %username%

Event ID	Level	Category	Event	Details
4002	Warning	Process Protection Event	API Hooking allowed: %path%	Threat Image Path: %path% Threat User: %username%
4003	Warning	Process Protection Event	API Hooking blocked: %path%	Threat Image Path: %path% Threat User: %username%
4004	Warning	Process Protection Event	DLL Injection allowed: %path%	Threat Image Path: %path% Threat User: %username%
4005	Warning	Process Protection Event	DLL Injection blocked: %path%	Threat Image Path: %path% Threat User: %username%
4500	Information	Changes in System	File/Folder created: %path%	Access Image Path: %path% Access Process Id: %pid% Access User: %username%
4501	Information	Changes in System	File modified: %path%	Access Image Path: %path% Access Process Id: %pid% Access User: %username%
4502	Information	Changes in System	File/Folder deleted: %path%	Access Image Path: %path%

EVENT ID	LEVEL	CATEGORY	EVENT	DETAILS
				Access Process Id: %pid% Access User: %username%
4503	Information	Changes in System	File/Folder renamed: %path % New Path: %path %	Access Image Path: %path% Access Process Id: %pid% Access User: %username%
4504	Information	Changes in System	Registry Value modified. Registry Key: %regkey% Registry Value Name: %regvalue % Registry Value Type: %regvaluetype%	Access Image Path: %path% Access Process Id: %pid% Access User: %username%
4505	Information	Changes in System	Registry Value deleted. Registry Key: %regkey% Registry Value Name: %regvalue %	Access Image Path: %path% Access Process Id: %pid% Access User: %username%
4506	Information	Changes in System	Registry Key created. Registry Key: %regkey%	Access Image Path: %path% Access Process Id: %pid%

Event ID	Level	Category	Event	Details
				Access User: %username%
4507	Information	Changes in System	Registry Key deleted. Registry Key: %regkey%	Access Image Path: %path% Access Process Id: %pid% Access User: %username%
4508	Information	Changes in System	Registry Key renamed. Registry Key: %regkey% New Registry Key: %regkey%	Access Image Path: %path% Access Process Id: %pid% Access User: %username%
5000	Warning	Device Control	Storage device access allowed: %PATH%	Access Image path: %PATH% Access User: %USERNAME% Device Type: %TYPE% %DEVICEINFO%
5001	Warning	Device Control	Storage device access blocked: %PATH%	Access Image path: %PATH% Access User: %USERNAME% Device Type: %TYPE% %DEVICEINFO%
6000	Information	System	%Result%	Update Source: %SERVER% [Original Version]

Event ID	Level	Category	Event	Details
				Virus Pattern: %VERSION% Spyware Pattern: %VERSION% Digital Signature Pattern: %VERSION% Program Inspection Pattern: %VERSION% Damage Cleanup Template: %VERSION% Damage Cleanup Engine Configuration: %VERSION% Virus Scan Engine: %VERSION% Damage Cleanup Engine: %VERSION% Scanner: %VERSION% [Updated Version] Virus Pattern: %VERSION% Spyware Pattern: %VERSION% Digital Signature Pattern: %VERSION% Program Inspectio

Event ID	Level	Category	Event	Details
				Pattern: %VERSION% Damage Cleanup Template: %VERSION% Damage Cleanup Engine Configuration: %VERSION% Virus Scan Engine: %VERSION% Damage Cleanup Engine: %VERSION% Scanner: %VERSION%
6001	Warning	System	Update failed: %ERROR_MSG% (%ERROR_CODE%)	Update Source: %SERVER% [Original Version] Virus Pattern: %VERSION% Spyware Pattern: %VERSION% Digital Signature Pattern: %VERSION% Program Inspection Pattern: %VERSION% Damage Cleanup Template: %VERSION%

Event ID	Level	Category	Event	Details
				Damage Cleanup Engine Configuration: %VERSION% Virus Scan Engine: %VERSION% Damage Cleanup Engine: %VERSION% Scanner: %VERSION% [Updated Version] Virus Pattern: %VERSION% Spyware Pattern: %VERSION% Digital Signature Pattern: %VERSION% Program Inspection Pattern: %VERSION% Damage Cleanup Template: %VERSION% Damage Cleanup Engine Configuration: %VERSION% Virus Scan Engine: %VERSION%

Event ID	Level	Category	Event	Details
				Damage Cleanup Engine: %VERSION% Scanner: %VERSION%
6002	Information	System	Malware scan started: %SCAN_TYPE%	Files to scan: %SCAN_FOLDER_TYPE% Scanned folders: %PATHS% Excluded paths: %PATHS% Excluded files: %PATHS% Excluded extensions: %PATHS% [Components] Virus Pattern: %VERSION% Spyware Pattern: %VERSION% Digital Signature Pattern: %VERSION% Program Inspection Pattern: %VERSION% Damage Cleanup Template: %VERSION% Damage Cleanup Engine

Event ID	Level	Category	Event	Details
				Configuration: %VERSION% Virus Scan Engine: %VERSION% Damage Cleanup Engine: %VERSION% Scanner: %VERSION%
6003	Information	System	Malware scan completed: %SCAN_TYPE%. Number of infected files: %NUM%	Files to scan: %SCAN_FOLDER_TYPE% Scanned folders: %PATHS% Excluded paths: %PATHS% Excluded files: %PATHS% Excluded extensions: %PATHS% Start date/time: %DATE_TIME% End date/time: %DATE_TIME% Number of scanned files: %NUM% Number of infected files: %NUM%

Event ID	Level	Category	Event	Details
				Number of cleaned files: %NUM% Number of files cleaned after reboot: %NUM% [Components] Virus Pattern: %VERSION% Spyware Pattern: %VERSION% Digital Signature Pattern: %VERSION% Program Inspection Pattern: %VERSION% Damage Cleanup Template: %VERSION% Damage Cleanup Engine Configuration: %VERSION% Virus Scan Engine: %VERSION% Damage Cleanup Engine: %VERSION% Scanner: %VERSION%

Event ID	Level	Category	Event	Details
6004	Warning	System	Malware scan unsuccessful: %SCAN_TYPE% %ERROR%	Files to scan: %SCAN_FOLDER_TYPE% Scanned folders: %PATHS% Excluded paths: %PATHS% Excluded files: %PATHS% Excluded extensions: %PATHS% Start date/time: %DATE_TIME% End date/time: %DATE_TIME% Number of scanned files: %NUM% Number of infected files: %NUM% Number of cleaned files: %NUM% Number of files cleaned after reboot: %NUM% [Components] Virus Pattern: %VERSION% Spyware Pattern: %VERSION%

Event ID	Level	Category	Event	Details
				Digital Signature Pattern: %VERSION% Program Inspection Pattern: %VERSION% Damage Cleanup Template: %VERSION% Damage Cleanup Engine Configuration: %VERSION% Virus Scan Engine: %VERSION% Damage Cleanup Engine: %VERSION% Scanner: %VERSION%
6005	Information	System	Malware detected: %ACTION% File path: %PATH%	Reboot required: %NEED_REBOOT% [Scan Result] Threat type: %TYPE% Threat name: %NAME% [Components] Virus Pattern: %VERSION%

Event ID	Level	Category	Event	Details
				Spyware Pattern: %VERSION% Digital Signature Pattern: %VERSION% Program Inspection Pattern: %VERSION% Damage Cleanup Template: %VERSION% Damage Cleanup Engine Configuration: %VERSION% Virus Scan Engine: %VERSION% Damage Cleanup Engine: %VERSION% Scanner: %VERSION%
6006	Warning	System	Malware detected. Unable to perform scan actions: %PATH%	First action: %1ST_ACTION% Second action: %2ND_ACTION% Threat type: %TYPE% Threat name: %NAME% [Components]

Event ID	Level	Category	Event	Details
				Virus Pattern: %VERSION% Spyware Pattern: %VERSION% Digital Signature Pattern: %VERSION% Program Inspection Pattern: %VERSION% Damage Cleanup Template: %VERSION% Damage Cleanup Engine Configuration: %VERSION% Virus Scan Engine: %VERSION% Damage Cleanup Engine: %VERSION% Scanner: %VERSION%
6007	Warning	Maintenance Mode	Malware detected in Maintenance Mode (file quarantine successful): %PATH%	Component versions: %VERSION% Virus Pattern: %VERSION% Spyware Pattern: %VERSION%

Event ID	Level	Category	Event	Details
				Digital Signature Pattern: %VERSION% Program Inspection Pattern: %VERSION% Damage Cleanup Template: %VERSION% Damage Cleanup Engine Configuration: %VERSION% Virus Scan Engine: %VERSION% Damage Cleanup Engine: %VERSION% Scanner: %VERSION%
6008	Warning	Maintenance Mode	Malware detected in Maintenance Mode (file quarantine unsuccessful): %PATH%	Component versions: Virus Pattern: %VERSION% Spyware Pattern: %VERSION% Digital Signature Pattern: %VERSION% Program Inspection Pattern: %VERSION%

Event ID	Level	Category	Event	Details
				Damage Cleanup Template: %VERSION% Damage Cleanup Engine Configuration: %VERSION% Virus Scan Engine: %VERSION% Damage Cleanup Engine: %VERSION% Scanner: %VERSION%
6009	Warning	Maintenance Mode	Malware detected in Maintenance Mode: %PATH%	Component versions: Virus Pattern: %VERSION% Spyware Pattern: %VERSION% Digital Signature Pattern: %VERSION% Program Inspection Pattern: %VERSION% Damage Cleanup Template: %VERSION% Damage Cleanup Engine Configuration: %VERSION%

Event ID	Level	Category	Event	Details
				Virus Scan Engine: %VERSION% Damage Cleanup Engine: %VERSION% Scanner: %VERSION%
7000	Information	System	Group policy applied	Old Group Name: %GROUP NAME% Old Policy Version: %VERSION% New Group Name: %GROUP NAME% New Policy Version: %VERSION%
7001	Warning	System	Unable to synchronize group policy	Old Group Name: %GROUP NAME% Old Policy Version: %VERSION% New Group Name: %GROUP NAME% New Policy Version: %VERSION% Reason: %Reason %
8000	Information	System	Real Time Scan is enabled.	

Event ID	Level	Category	Event	Details
8001	Warning	System	Real Time Scan is disabled.	
8010	Warning	System	Incoming files were scanned by antivirus. Action was taken according to settings.	File Path: %PATH% File Hash: %HASH% Threat Type: %TYPE% Threat Name: %NAME% Action Result: %INTEGER% Quarantine Path: %PATH%
8011	Warning	System	Application execution was blocked by antivirus.	Process Image Path: %PATH% File Hash: %HASH% Threat Type: %TYPE% Threat Name: %NAME%
8500	Information	System	Scheduled component update has been enabled. Next update will be on %TIME% (agent's local system time).	
8501	Information	System	Scheduled component	

Event ID	Level	Category	Event	Details
			update has been disabled.	
8601	Information	anomaly_detect	Operations Behavior Anomaly Detection (User Login) has been enabled.	Mode: %Mode% Level: %Level% Learning time: %LearningTime% day(s)
8602	Information	anomaly_detect	Operations Behavior Anomaly Detection (User Login) has been disabled.	
8603	Information	anomaly_detect	Operations Behavior Anomaly Detection (Application Behavior) has been enabled.	Mode: %Mode% Level: %Level% Learning time: %LearningTime% day(s)
8604	Information	anomaly_detect	Operations Behavior Anomaly Detection (Application Behavior) has been disabled.	
8610	warning	anomaly_detect	An abnormal user login has been detected by Operations Behavior Anomaly Detection.	Domain: %Domain% Account: %Account% Login Type: %LoginType% Source IP: %IP%

Event ID	Level	Category	Event	Details
8611	warning	anomaly_detect	A user login failure has been detected by Operations Behavior Anomaly Detection.	Domain: %Domain% Account: %Account% Login Type: %LoginType% Source IP: %IP%
8612	warning	anomaly_detect	An unrecognized application has been detected by Operations Behavior Anomaly Detection.	PID: %PID% Program Path: %Path% Program Hash: %SHA256% Program Size: %Size% Certificate: %CertificateSigner% Vendor: %VendorName% Product: %Product%
8613	warning	anomaly_detect	Malicious application behavior has been detected by Operations Behavior Anomaly Detection	Program Path: %Path% Program Hash: %SHA256% Program Size: %Size% Certificate: %CertificateSigner% Vendor: %VendorName%

Event ID	Level	Category	Event	Details
				Product: %Product%
8614	warning	anomaly_detect	Suspicious application behavior has been detected by Operations Behavior Anomaly Detection.	Program Path: %Path% Program Hash: %SHA256% Program Size: %Size% Certificate: %CertificateSigner% Vendor: %VendorName% Product: %Product%
8620	Information	anomaly_detect	A user login account has been added to the Situational Awareness baseline.	Domain: %Domain% Account: %Account% Login Type: %LoginType% Source IP: %IP%
8621	Information	anomaly_detect	A user login account has been excluded from the Situational Awareness baseline.	Domain: %Domain% Account: %Account% Login Type: %LoginType% Source IP: %IP%
8622	Information	anomaly_detect	An application has been added to the Situational	Application Path: %Path%

Event ID	Level	Category	Event	Details
			Awareness baseline.	
8623	Information	anomaly_detect	An application has been excluded from the Situational Awareness baseline.	Application Path: %Path%

Agent Error Code Descriptions for StellarProtect (Legacy Mode)

This list describes the various error codes used in StellarProtect (Legacy Mode) agent.

Code	Description
0x00040200	Operation successful.
0x80040201	Operation unsuccessful.
0x80040202	Operation unsuccessful.
0x00040202	Operation partially successful.
0x00040203	Requested function not installed.
0x80040203	Requested function not supported.
0x80040204	Invalid argument.
0x80040205	Invalid status.
0x80040206	Out of memory.
0x80040207	Busy. Request ignored.
0x00040208	Retry. (Usually the result of a task taking too long)
0x80040208	System Reserved. (Not used)
0x80040209	The file path is too long.

Code	Description
0x0004020a	System Reserved. (Not used)
0x8004020b	System Reserved. (Not used)
0x0004020c	System Reserved. (Not used)
0x0004020d	System Reserved. (Not used)
0x8004020d	System Reserved. (Not used)
0x0004020e	Reboot required.
0x8004020e	Reboot required for unexpected reason.
0x0004020f	Allowed to perform task.
0x8004020f	Permission denied.
0x00040210	System Reserved. (Not used)
0x80040210	Invalid or unexpected service mode.
0x00040211	System Reserved. (Not used)
0x80040211	Requested task not permitted in current status. Check license.
0x00040212	System Reserved. (Not used)
0x00040213	System Reserved. (Not used)
0x80040213	Passwords do not match.
0x00040214	System Reserved. (Not used)
0x80040214	System Reserved. (Not used)
0x00040215	Not found.
0x80040215	"Expected, but not found."
0x80040216	Authentication is locked.
0x80040217	Invalid password length.

Code	Description
0x80040218	Invalid characters in password.
0x00040219	Duplicate password. Administrator and Restricted User passwords cannot match.
0x80040220	System Reserved. (Not used)
0x80040221	System Reserved. (Not used)
0x80040222	System Reserved. (Not used)
0x80040223	File not found (as expected, and not an error).
0x80040224	System Reserved. (Not used)
0x80040225	System Reserved. (Not used)
0x80040240	Library not found.
0x80040241	Invalid library status or unexpected error in library function.
0x80040260	System Reserved. (Not used)
0x80040261	System Reserved. (Not used)
0x80040262	System Reserved. (Not used)
0x80040263	System Reserved. (Not used)
0x80040264	System Reserved. (Not used)
0x00040265	System Reserved. (Not used)
0x80040265	System Reserved. (Not used)
0x80040270	System Reserved. (Not used)
0x80040271	System Reserved. (Not used)
0x80040272	System Reserved. (Not used)
0x80040273	System Reserved. (Not used)
0x80040274	System Reserved. (Not used)

Code	Description
0x80040275	System Reserved. (Not used)
0x80040280	Invalid Activation Code.
0x80040281	Incorrect Activation Code format.

Server Event Log Descriptions for StellarProtect (Legacy Mode)

This table lists the server event log descriptions for StellarProtect (Legacy Mode).

ID	Server Event	Description
1011	Unable to send reports	Unable to send scheduled reports to %email_address %.
1012	Unable to send notifications	Unable to send notifications to %email_address%.
3001	Purge agent event logs - automatic	Automatic purge of agent event logs.
3002	Purge agent event logs - manual	Manual purge of agent event logs.
3004	Purge server event logs - automatic	Automatic purge of server event logs.
3005	Purge server event logs - manual	Manual purge of server event logs.

ID	Server Event	Description
4001	Take action on unapproved blocked file	Request sent to endpoint(s): Add blocked file to Approved List. File name: %file_name% File hash: %file_hash% (SHA-1) Request sent to endpoint(s): Delete the blocked file. File name: %file_name% File hash: %file_hash% (SHA-1) Request sent to endpoint(s): Ignore the blocked file. File name: %file_name% File hash: %file_hash% (SHA-1) Request sent to endpoint(s): Quarantine the file. File name: %file_name% File hash: %file_hash% (SHA-1) Request sent to endpoint(s): Restore the file from quarantine. File name: %file_name% File hash: %file_hash% (SHA-1)
4004	Release the quarantined malicious file	Request sent to endpoint(s): Restore the file from quarantine. File name: %file_name% File hash: %file_hash% (SHA-1)
4005	Delete the quarantined malicious file	Request sent to endpoint(s): Delete the file from quarantine. File name: %file_name% File hash: %file_hash% (SHA-1)

ID	Server Event	Description
4006	Take action on unapproved fileless attack	Request sent to endpoint(s): Add blocked process chain and command argument. Process chain: %process_name% Command argument: %parameter% Request sent to endpoint(s): Ignore blocked process chain and command argument. Process chain: %process_name% Command argument: %parameter%
4100	Login Account Added to Baseline	A user login account has been added to the Situational Awareness baseline. Domain:%domain% Account:%account% Login type:%logon_type% Source IP:%source_ip%
4101	Application Added to Baseline	An application has been added to the Situational Awareness baseline. Application Path: %app_path%
5001	Turn Application Lockdown on	Turned Application Lockdown on for endpoint(s).
5002	Turn Application Lockdown off	Turned Application Lockdown off for endpoint(s).
5011	Add trusted file hashes	Added 1 trusted file hash to endpoint(s). Added %num% trusted file hashes to endpoint(s).
5013	Delete approved files	Removed specified items from the Approved List on endpoint(s) using `SLtasks.exe`.
5021	Block access from storage devices	Blocked access from storage devices on endpoint(s).

ID	Server Event	Description
5023	Allow access from storage devices	Allowed access from storage devices on endpoint(s).
5025	Add trusted USB device on selected endpoint(s)	Add trusted USB device on selected endpoint(s)
5601	Export agent settings	Exported (%file_desc%) from %endpoint_name%.
5602	Import agent settings	Imported (%file_desc%) to endpoint(s).
5700	Scan for malware	Scanned endpoint(s) for malware.
5701	Update agent components	Updated agent components on endpoint(s).
5800	Change agent administrator password	Changed password on endpoint(s).
5900	Update agent Approved List	Updated Approved List on endpoint(s).
6001	Deploy agent patch	Deploy agent patch to endpoint(s). Patch name: %patch_name%
6101	Agent transferred to new StellarOne server	Agent transferred to new StellarOne server
6201	Turn Maintenance Mode on	Turned Maintenance Mode on for endpoint(s).
6202	Turn Maintenance Mode off	Turned Maintenance Mode off for endpoint(s).
6301	Deploy group policy	Deploy group policy. Version: %version%.
6401	Set Intelligent Runtime Learning	Set Intelligent Runtime Learning. Version: %policy_version%

ID	Server Event	Description
6402	Set Agent Password	Set Agent Password. Version: %policy_version%
6403	Set Schedule Scan Setting	Set Schedule Scan Setting. Version: %policy_version%
6404	Set User-Defined Suspicious Objects	Set User-Defined Suspicious Objects. Version: %policy_version%
6405	Set Agent Patch	Set Agent Patch. Version: %policy_version%

Server Event Log Descriptions for StellarOne

This table lists the server event log descriptions for StellarOne.

ID	Content
45313	Scan component update now
45314	Scan component [%s] update task started
45315	Enable scan component scheduled update
45316	Disable scan component scheduled update
45317	Modify scan component update source for StellarOne
45318	Modify scan component update source for agents
45319	Scan component [%s] update was successful
45320	Scan component [%s] update was successful but no duplicate is needed
45321	Scan component [%s] update failed with internal error
45322	Scan component [%s] update failed due to unable to connect to the network
45323	Customize policy

ID	Content
45324	Inherit policy from [%s]
45325	Scan component [%s] update failed due to <%s>
45569	Modify sync interval: [%s] Minutes
45824	Enable forwarding logs to Trend Micro Vision One
45825	Disable forwarding logs to Trend Micro Vision One

Syslog Content - CEF

The following section maps syslog content between StellarOne log output and CEF syslog types.

Topics in this section includes:

- *StellarProtect Agent Event Format on page A-78*
- *StellarProtect Server Event Format on page A-81*
- *StellarProtect (Legacy Mode) Agent/Server Event Format on page A-82*
- *StellarOne Server Event Format on page A-84*

StellarProtect Agent Event Format

Please refer to the table below as StellarProtect agent events in the Common Event Format.

Table A-1. StellarProtect Agent Event Format

CEF Field Name	Description	Possible Values
Header		
CEF:Version	CEF format version	CEF:0
Device Vendor	Device Vendor	TXOne Networks
Device Product	Device Product	StellarProtect

CEF Field Name	Description	Possible Values
Device Version	Device Version	2.0.1145
Device Event Class ID	Event ID	{}
Name	Event category	Agent Event
Severity	LOG_CRIT: 2 LOG_WARNING: 4 LOG_INFO: 6	{2, 4, 6}
Extension		
eventTime	StellarProtect format	Apr 02 2022 13:31:51 GMT +00:00
msg	<string>	
category	OPTION: 0 SYSTEM: 1 INTELLI_AV: 2 ANOMALY_DETECT: 3 CHANGE_CONTROL: 4 DEVICE_CONTROL: 5 MISC: 15	
agentEndpoint	<string>	
agentIp	<string>	
agentLocation	<string>	
agentVendor	<string>	
agentModel	<string>	
agentOS	<string>	
policyVersion	<string>	

CEF Field Name	Description	Possible Values
detailMsg	<string>	
targetProcess	<string>	
fileHash	<string>	
threatType	<string>	
threatName	<string>	
filePath	<string>	
actionResult	<int>	
quarantinePath	<string>	
obadMode	<string>	
obadLevel	<string>	
accessUser	<string>	
processId	<string>	
parentProcess1	<string>	
parentProcess2	<string>	
parentProcess3	<string>	
parentProcess4	<string>	
targetArguments	<string>	
parentArguments1	<string>	
parentArguments2	<string>	
parentArguments3	<string>	
parentArguments4	<string>	
blockedProcess	<string>	
targetFile	<string>	

CEF Field Name	Description	Possible Values
vid	<int>	
pid	<int>	
sn	<string>	
accessImagePath	<string>	
srcPath	<string>	
dstPath	<string>	
errCode	<int>	
patchFileName	<string>	
filePath	<string>	
type	<string>	

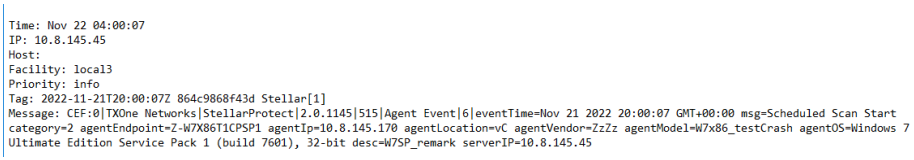


Figure A-1. Example of StellarProtect Syslog Content

StellarProtect Server Event Format

Please refer to below table as StellarProtect's server events in the Common Event Format.

Table A-2. StellarProtect Server Event Format

CEF Field Name	Description	Possible Values
Header		
CEF:Version	CEF format version	CEF:0
Device Vendor	Device Vendor	TXOne Networks

CEF Field Name	Description	Possible Values
Device Product	Device Product	StellarProtect
Device Version	Device Version	3.0
Device Event Class ID	Event ID	{}
Name	Event category	Server Event
Severity	LOG_INFO: 6	{6}
Extension		
eventTime	StellarProtect format	Apr 02 2023 13:31:51 GMT +00:00
msg	<string>	
userName	<string>	
userRole	<string>	
clientIp	<string>	

StellarProtect (Legacy Mode) Agent/Server Event Format

Please refer to below table as StellarProtect (Legacy Mode) agent/server events in the Common Event Format.

Table A-3. Agent Event Format

CEF Key	Description	Possible Values / Example
Header (logVer)	CEF format version	CEF:0
Header (vendor)	Device Vendor	TXOne Networks
Header (pname)	Device Product	StellarOne, StellarProtect (Legacy Mode)
Header (pver)	Device Version	2.0.1145
Header (eventid)	Device Event Class ID	2509, 6005

CEF Key	Description	Possible Values / Example
Header (eventName)	Name	Agent Event, Server Event, Console Log
Header (severity)	Severity	4
rt	Logged Time	Apr 02 2022 13:31:51 GMT +00:00
msg	Event Id mapped message	File access blocked. File not found in Approved List
dvchost	Computer name	Localhost
dvc	IP address	192.168.154.137
cs1Label	Detailed Event Message	Detailed Event Message
cs1	Event ID mapped detailed message	File access blocked: C:\ \Documents and Settings\ \Administrator\\Local Settings\\Temp\\isD5V0T.tmp \\is-H7K4O.tmp Malware detected: Quarantine. File path: C:\\eicar\ \EICAR_TEST_FILE.exe
cs2Label	Client OS	Client OS
cs2	OS description	Microsoft Windows 7 Enterprise Edition Service Pack 1 build 7601, 64-bit
cs3Label	Client Description	Client Description
cs3	Description	-
suser	Login User	PC1688\\Administrator
act	Action Type	ACTION_TYPE_BLOCKED
fileHash	SHA1	2201589AA3ED709B3665E4FF 979E10C6AD5137F C

CEF Key	Description	Possible Values / Example
filePath	File path	C:\\Documents and Settings\\\Administrator\\Local Settings\\Temp\\is-D5V0T.tmp\\is-H7K4O.tmp
fileCreateTime	File create time	04 02 2022 14:00:21
fileModificationTime	File modified time	04 02 2022 14:00:21
logGuid	Log GUID	: F43500BB-1F8A-4589-A292-144A9DA343AA、{56B7345A-B6D3-4BBB-A515-4AFFAE04092F}
ServerIP	Server IP	10.8.145.157

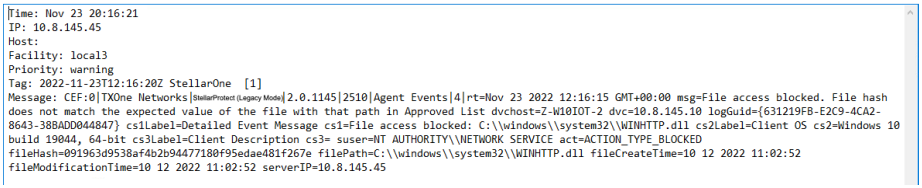


Figure A-2. Example of StellarProtect (Legacy Mode) Syslog Content

StellarOne Server Event Format

Please refer to below table as StellarOne's server events in the Common Event Format.

Table A-4. StellarOne Server Event Format

CEF Field Name	Description	Possible Values
Header		
CEF:Version	CEF format version	CEF:0

CEF Field Name	Description	Possible Values
Device Vendor	Device Vendor	TXOne Networks
Device Product	Device Product	StellarOne
Device Version	Device Version	3.0
Device Event Class ID	Event ID	{}
Name	Event category	Console Log
Severity	LOG_INFO: 6	{6}
Extension		
eventTime	StellarOne format	Jan 02 2006 15:04:05 GMT +00:00
msg	<string>	
userName	<string>	
userRole	<string>	
clientIp	<string>	
status	UNSPECIFIED: 0 AU_SUCCESS: 1 AU_FAIL: 2	{0, 1, 2}
product	<string>	{protect}
serverIP	StellarOne IP address	10.8.145.123

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