Trellix MOVE AntiVirus 4.10.x Product Guide

Contents

Product Overview

Overview

Trellix® Management for Optimized Virtual Environments AntiVirus (**Trellix MOVE AntiVirus**) is an anti-virus solution for virtual environments. It provides protection and optimal performance for your organization without having to install an anti-virus application on every virtual machine.

Trellix MOVE AntiVirus detects threats and then protects your environment based on settings that you configure.

You can configure the software as a standalone product, or use **Trellix ePolicy Orchestrator - On-prem** to configure, manage, and enforce your policies. After the configuration, you can use queries and dashboards to track activity and detections.

The software includes two deployment options, **Multi-platform** and **Agentless**. Both options provide consistent protection and can be managed and reported through **Trellix ePO - On-prem**.

Key features

Trellix MOVE AntiVirus features enable you to secure and protect your enterprise systems without compromising on performance.

The key features are listed below.

Note

Each feature that is listed below is available either in both Multi-platform and Agentless deployment or only one. You can know about the availability of the feature by checking the column Multi-platform and Agentless in the table below.

Feature	Description	Multi-platform	Agentless
Centralized management	**Trellix MOVE AntiVirus** integrates fully into **Trellix ePO - On-prem** for automated security reporting, monitoring, deployment, and policy administration.	Yes	Yes
Data Center visibility	vSphere Connector, part of the Data Center Security suite, provides	Yes	Yes

Feature	Description	Multi-platform	Agentless
	a complete view into virtual datacenters and imports key properties like servers, hypervisors, and VMs through **Trellix ePO - On-prem**.		
On-access scanning	Examine files as they are accessed, providing continuous, real-time detection of threats.	Yes	Yes
On-demand scanning	Examine all files on VMs to find potential threats any time or on a schedule.	Yes	Yes
Targeted on-demand scanning	Optimize file scanning for files where the previous scanning is timed out for reasons such as large file size, file structure, and file composition.	Yes	Yes
SVM Manager	Automatically assign the SVM to Multi-platform clients for simplified administrative management, monitoring the health of SVMs, and load-balancing of SVMs.	Yes	No
SVM autoscaling	The SVMs automatically scale up and down depending on the	Yes	No

Feature	Description	Multi-platform	Agentless
	number of endpoints connected. Define the number of backup SVMs that are ready to protect your client systems. Calculate the number of ready SVMs required for the maximum number of clients that need protection at any time of the day. The standby SVMs are automatically deployed based on the backup SVM value.		
Scan diagnostics	Run the scan diagnostic tool to easily find frequently scanned files, extensions, and VMs, then use the results to exclude them from being scanned, improving performance.	Yes	Yes
RAM disk for scanning	RAM disk is used by the OSS for file scanning and it significantly reduces the disk I/O on the offline scan server. By default, RAM disk is enabled in the **Trellix ePO - On-prem** server. RAM disk is created by the OSS and it improves the OSS performance by enhancing the scan time.	Yes	No

Feature	Description	Multi-platform	Agentless
Trellix Global Threat Intelligence	Determine a file's reputation risk score with seamless integration of **TIE**, **Trellix ePO - On-prem**, and **Trellix MOVE AntiVirus**.	Yes	No
Trellix Intelligent Sandbox integration	Protect your client systems and network against malware and Advanced Persistent Threats (APTs) with the multi-level threat detection capabilities of **Intelligent Sandbox**.	Yes	No
Optimized scanning	Minimize the performance impact on virtual servers with enhanced scan avoidance and scanning based on overall workload of the hypervisor.	Yes	Yes
NSX-T Manager-based deployment	Register the SVM with VMware NSX-T Data Center Manager and automatically deploy it to a host to provide virus protection for VMs on a new hypervisor when the hypervisor is added to the cluster.	No	Yes
VMware vCNS-based deployment	Deploy the SVM to hypervisor or hypervisors in vCNS	No	No

Feature	Description	Multi-platform	Agentless
	environment to provide virus protection for VMs on a hypervisor.		
Endpoint Scan and Security reports	With the vSphere Connector software, quickly retrieve Endpoint Scan Report and Endpoint Security Report of all registered endpoints.	Yes	Yes

Working

Trellix MOVE AntiVirus detects, resolves, and logs information about detected threats. The software is installed on **Trellix MOVE AntiVirus** Security Virtual Machine (SVM) to perform these tasks.

The software includes two deployment options, **Multi-platform** and **Agentless**. Both options provide consistent protection and are managed and reported on by **Trellix ePO - On-prem**.

Multi-platform

Multi-platform is an agent-based deployment option that offloads all scanning to a dedicated Security Virtual Machine (SVM) that runs the **McAfee® Endpoint Security** software. Guest VMs are no longer required to run anti-virus software locally, which improves the performance for anti-virus scanning, and increases VM density per hypervisor.

Note

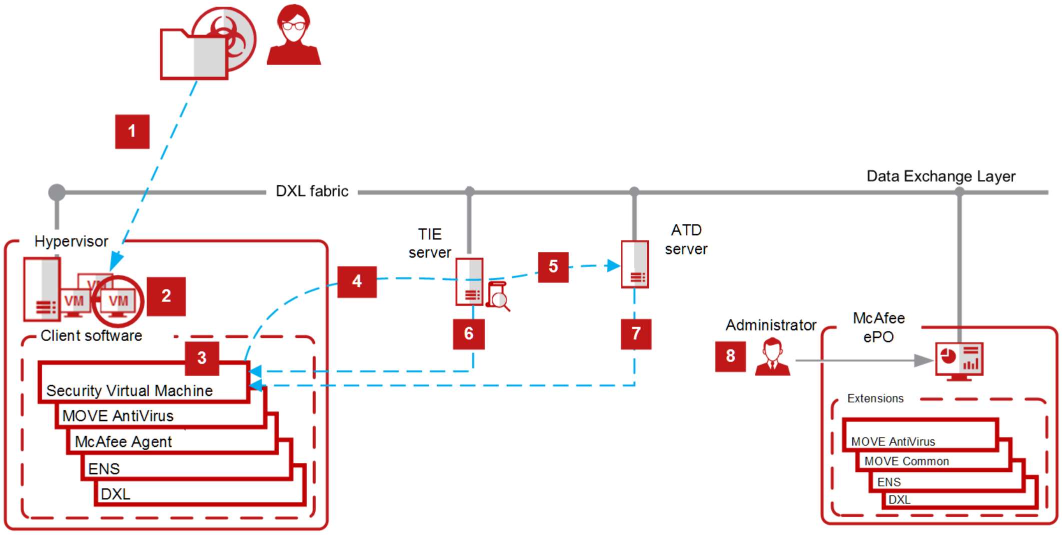
In the workflow mentioned below, the assumption is that **Trellix Threat Intelligence Exchange** and **Trellix Intelligent Sandbox** are enabled.

1. The file enters the network, where **Trellix MOVE AntiVirus** is installed.
2. **Trellix MOVE AntiVirus** client looks for the file reputation in the local cache of the VM.
3. When the search provides no results, then the file is provided to the Security Virtual Machine (SVM) to check the file reputation in the global cache.
4. If the search in local and global cache provides no results, then the file is provided to the **Threat Intelligence Exchange** for inspection, which internally requests the **Trellix Global Threat Intelligence** for the file reputation.
5. If the file's reputation is not available in **Global Threat Intelligence**, then the file is sent to **Intelligent Sandbox** for scan.
6. As the scan by **Intelligent Sandbox** is a time-consuming process, the file is also sent to the AMCore engine for scanning.
7. **Intelligent Sandbox** sends the results to the SVM after completion of the scan.

Note

If **Threat Intelligence Exchange** and **Intelligent Sandbox** are not enabled, then the file is sent for scanning after step 3 and therefore, steps 4, 5, 6, and 7 are not relevant.

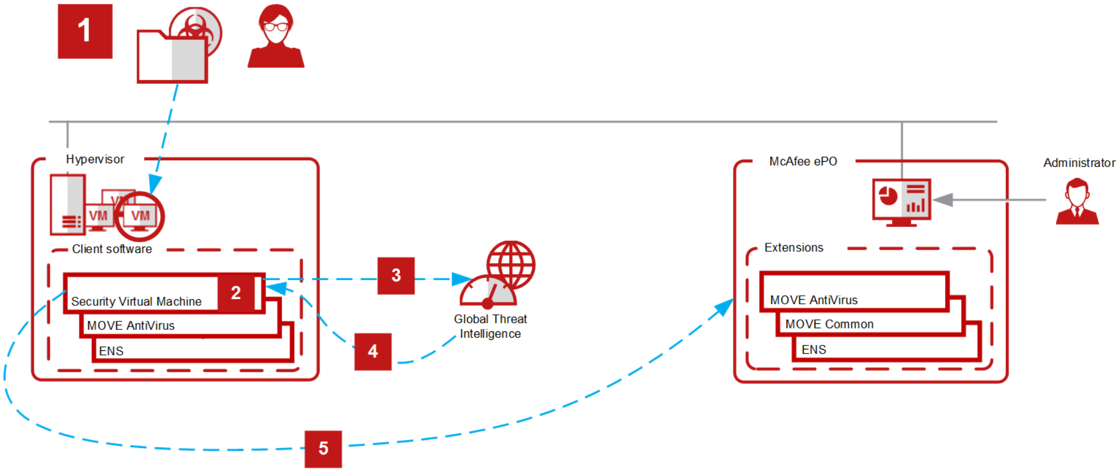
8. If the file is malicious, then you can check the **Threat Event Log** in **Trellix ePO - On-prem** to see the results.



Agentless

This deployment method integrates with VMware NSX-T Manager. It protects your virtual environment from malware without a **Trellix Agent** for easy deployment and setup. This deployment provides virus protection for VMs on the hypervisor.

1. The virus enters the network and tries to infect a VM, where **Trellix MOVE AntiVirus** is installed.
2. The Security Virtual Machine (SVM) is notified about the new file in the network through the third-party agents. After receiving the file information, the SVM initiates the search for the same file in the global cache.
3. When the search in global cache provides no results, then the SVM requests **Trellix GTI** for the file's reputation.
4. If the file's reputation is not available in **Trellix GTI** , then the SVM initiates a file scan.
5. If the file is malicious, then you can check the **Threat Event Log** in **Trellix ePO - On-prem** to see the results.


1
Hypervisor
VM
VM
VM
Client software
Security Virtual Machine
2
MOVE AntiVirus
ENS
3
Global Threat Intelligence
4
5
McAfee ePO
Administrator
Extensions
MOVE AntiVirus
MOVE Common
ENS

Configuring Trellix MOVE AntiVirus

Configure **Trellix MOVE AntiVirus** settings to prevent malware access, keep your protection up to date, and scan for malware on client systems.

Trellix MOVE AntiVirus provides two types of file scanning, on-access and on-demand. You can customize the scan settings based on your demands and requirements.

Multi-platform components

Each component performs specific functions to keep your environment protected.

ePolicy Orchestrator - On-prem — A management platform that communicates with the **Trellix Agent**, manages the Multi-platform configuration, and provides reports on malware discovered in your virtual environment.

Hypervisor — A virtual operating platform that allows multiple operating systems to run concurrently on a hosted system and manages the execution of the guest operating system.

Trellix Agent — A client-side component that communicates with **Trellix ePO - On-prem**, applies policies to each VM, and deploys the **Trellix MOVE AntiVirus** client.

Trellix MOVE AntiVirus client — The client software that allows VMs to work with the Security Virtual Machine (SVM) for file scanning and malware detection. Enforces actions on the client when a threat is detected.

Trellix MOVE AntiVirus SVM — The Security Virtual Machine VM that provides offloaded scanning support for VMs, minimizing the performance impact on virtual desktops.

SVM Manager — A load balancing component that automatically assigns SVM to Multi-platform clients based on configurable parameters like scan server load, **Trellix ePO - On-prem** tags, and IP address ranges.

Trellix MOVE AntiVirus Meta Package extension — The product extension that provides policies and controls for configuring and managing the self-protection for the product's command line interface. You can enable events and logging details of the **Trellix MOVE AntiVirus** client through **Trellix ePO - On-prem**. It provides policies and controls for configuring and managing components such as SVM Manager, SVM Settings, on-access and on-demand scanning, and shared cloud solutions. It provides the configurations required for managing the **Trellix MOVE AntiVirus** SVM through **Trellix ePO - On-prem**.

Endpoint Security — Anti-virus software that enables anti-virus scanning for the SVM virtual machine and communicates with the **Trellix GTI** servers.

vSphere Connector — A Data Center Connector that helps you discover and import your virtual infrastructure using **Trellix ePO - On-prem**. You can also view the virtualization properties and protection status of your virtual machines, and manage them.

Agentless components

Each component performs specific functions to keep your environment protected.

ePolicy Orchestrator - On-prem — A management platform that allows you to configure policies to manage Agentless configuration and provides reports on malware discovered in your virtual environment.

Security Virtual Machine (SVM) — The **Trellix MOVE AntiVirus** service package that provides anti-virus protection for VMs and communicates with the loadable kernel module on the hypervisor, **Trellix ePO - On-prem**, and the **Trellix GTI** servers. The SVM is the only system directly managed by **Trellix ePO - On-prem**. Endpoint Security for Linux Threat Prevention, **Trellix Agent**, and **Trellix MOVE AntiVirus** (Agentless) are pre-installed.

File Quarantine — Remote quarantine system, where quarantined files are stored on an administrator-specified network share.

Trellix GTI (Global Threat Intelligence) — A comprehensive, real-time, cloud-based threat intelligence service that classifies suspicious files that are found on the file system. When the real-time malware defense detects a suspicious program, it sends a DNS request for analysis to a central database server hosted by **Trellix Labs**.

VMware vCenter — Console that manages the ESXi servers, which host the guest VMs that require protection.

Hypervisor (ESXi) — A virtual operating platform that allows multiple operating systems to run concurrently on a hosted system and manages the execution of the guest operating systems. ESXi is an embedded hypervisor for servers that runs directly on server hardware without requiring an extra underlying operating system.

VMware NSX-T Manager — Console that allows you to configure, provision, and automate the protection on the endpoints in a datacenter.

Virtual Machines (VMs) — Completely isolated guest operating system installations in a normal host operating system that support both virtual desktops and virtual servers.

Importance of creating a security strategy

Protecting your virtual systems from malware requires a well-planned strategy: define threat prevention and detection, response to threats, and ongoing analysis and tuning.

Prevent — Avoiding threats

Define your security requirements to make sure that your data sources are protected. Then, develop an effective scan strategy to stop intrusions before they gain access to your environment.

Configure these features to prevent intrusions:

- **Self-Protection** — (Multi-platform only) One of the first things that malware tries to do during an attack is to disable your system security software. Configure **Self-Protection** for **Trellix MOVE AntiVirus** (Multi-platform) to prevent **Trellix MOVE AntiVirus** service, files, and registries from being stopped or changed.
- **Common scan options** — Enable **Trellix MOVE AntiVirus** and configure options that apply to all scans, including:

  - (Multi-platform) Quarantine location and the number of days to keep quarantined items before automatically deleting them
  - (Agentless) Quarantine network share where the quarantined files are stored
- **Scan Diagnostics** client task — Run the scan diagnostic tool or use **Trellix ePO - On-prem** to calculate and display frequently scanned files, extensions, processes, and VMs. You can use the results to exclude the items from being scanned.

Detect — Finding threats

Develop an effective strategy to detect intrusions when they occur. Configure these features to detect threats:

- **On-Access Scan** — Scan for threats as files are read from or written to disk.
- **On-Demand Scan** — Run immediate and scheduled scans, including scanning for malware-related registry entries that weren't previously cleaned.
- **Targeted On-Demand Scan** — Select a system or a group of systems from the System Tree where to initiate the on-demand scan.

Respond — Handling threats

Use product log files, automatic actions, and other notification features to determine the best way to handle detections.

- **Actions** — Configure what happens in response to a detection.
- **Alerts** — Specify how **Trellix MOVE AntiVirus** notifies you when detections occur, including alerting options and logging.

Tune — Monitoring, analyzing, and fine-tuning your protection

Monitor and analyze your configuration to improve system and network performance, and enhance virus protection, if needed. Use these tools and features:

- **Queries, dashboards, and server tasks** (**Trellix ePO - On-prem**) — Monitor scanning activity and detections.
- **Log files** — View a history of detected items. Analyzing this information might reveal that you must enhance your protection or change the configuration to improve system performance.
- **Scan policies** — Analyze log files or queries and change policies to increase performance or virus protection, if needed. For example, you can improve performance by configuring exclusions, high- and low-risk process scanning, and disabling scan on write.
- **Scan Diagnostics** reports — Run and view these scan diagnostic queries:
  - Top 10 Scanned File Extensions for each SVM
  - Top 10 Scanned Files for each SVM
  - Top 10 Scanned Virtual Machines for each SVM
  - (Multi-platform only) Top 10 Scanned Processes for each SVM

Trellix ePO - On-prem features leveraged by Trellix MOVE AntiVirus

Trellix MOVE AntiVirus leverages these features in the **Trellix ePO - On-prem** environment.

Trellix ePO - On-prem feature	**Trellix MOVE AntiVirus**
Policies	Adds predefined policies to the Policy Catalog.
Client tasks	Adds predefined client tasks to the Client Task Catalog.
Dashboards and monitors	Adds predefined dashboards and monitors.
Permission sets	Adds a **Trellix MOVE AntiVirus** permission group to each permission set.
Queries and reports	Adds: • Predefined queries to the Query list. Query names include Multi-platform, Agentless, and SVM name for easier filtering. • **Predefined Result Types and Properties** for creating and narrowing the scope of custom queries.
Server tasks	Adds predefined server tasks to the Server Tasks list in Automation.
Threat Event Log	Adds **Trellix MOVE AntiVirus** events that you can filter and view.

About the Trellix ePO - On-prem system tree

The System Tree is a graphical representation of how your managed network is organized.

Trellix ePO - On-prem enables you to automate and customize system organization. The structure that you put in place affects how security policies are inherited and enforced throughout your environment.

You can perform these **Trellix MOVE AntiVirus** functions from the System Tree.

Function	Category	Description
Policies	**MOVE AntiVirus Common 4.10.x → Options**	Includes policy setting to prevent **Trellix MOVE AntiVirus** service, files, and registries from being stopped or modified. You can also specify the settings required for events and logging for Multi-platform.
	MOVE AntiVirus 4.10.x → Options	Configures settings that apply to both on-access and on-demand scans.
	MOVE AntiVirus 4.10.x → On Access Scan	When a threat is detected, the on-access scanner responds based on the configurations in this policy.
	MOVE AntiVirus 4.10.x → On Demand Scan	When a threat is detected, the scanner responds based on the configurations in this policy.
	MOVE AntiVirus 4.10.x → Shared Cloud Solutions (Multi-platform only)	The Shared Cloud Solutions policy determines whether files and certificates are blocked or allowed on your systems based on reputation levels.
	MOVE AntiVirus 4.10.x → SVM Manager Settings (Multi-platform only)	Create and assign a policy that specifies which SVM a virtual infrastructure group uses. You can define the SVM auto scale settings, so that the SVM deployment starts automatically depending on the number of clients connecting to the SVM for protection.

Function	Category	Description
	MOVE AntiVirus 4.10.x → SVM Settings	Specifies the scanning settings and performance configurations for the SVM.
Client Tasks (Multi-platform)	**Restore from Quarantine**	Performs actions on quarantined items. For example, you can restore a quarantined item after downloading a later version of the DAT that contains information that cleans the threat.
	Targeted On-Demand Scan	Optimizes file scanning for files where the previous scan timed out for reasons such as large file size, file structure, and file composition.
	Scan Diagnostics	Run the scan diagnostic task to easily find frequently scanned files, extensions, and VMs, then use the results to exclude these items from being scanned.
	Check SVM Assignment	Checks whether an SVM is assigned to the client system to protect it.
	Check SVM Connectivity	Checks the connectivity status between an SVM and the client system.
	Check SVM Manager Connectivity	Checks the connectivity status between the SVM Manager and the client system.
	Perform EICAR Test	Performs an EICAR test on the client system.

Function	Category	Description
Client Tasks (Agentless)	**Scan Diagnostics**	Run the scan diagnostic task to easily find frequently scanned files, extensions, and VMs, then use the results to exclude these items from being scanned.
Targeted ODS	**Targeted On-Demand Scan**	Optimizes file scanning for files where the previous scan timed out for reasons such as large file size, file structure, and file composition.

Using client tasks with Trellix MOVE AntiVirus

Use client tasks to automate system management in your **Trellix ePO - On-prem** environment. For example, you can configure a client task to deploy product updates, run a diagnostic scan, or run an on-demand scan.

Depending on your permissions, you can use predefined client tasks as is, edit them, or create custom client tasks.

Trellix MOVE AntiVirus adds these predefined client tasks to the Client Task Catalog.

Function	Category	Description
Client Tasks (Multi-platform)	**Restore from Quarantine**	Performs actions on quarantined items. For example, you can restore an item after downloading a later version of the DAT that contains information that cleans the threat.
	Targeted On-Demand Scan	Optimizes file scanning for files where the previous scanning is timed out for reasons such as large file size, file structure, and file composition.
	Scan Diagnostics	Run the scan diagnostic task to easily find frequently scanned

Function	Category	Description
		files, processes, extensions, and VMs, then use these results to exclude them from being scanned. A good set of exclusions improves the performance of the virtual infrastructure.
	Check SVM Assignment	Checks whether an SVM is assigned to the client system to protect it.
	Check SVM Connectivity	Checks the connectivity status between an SVM and the client system.
	Check SVM Manager Connectivity	Checks the connectivity status between the SVM Manager and the client system.
	Perform EICAR Test	Performs an EICAR test on the client system.
Client Tasks (Agentless)	**Scan Diagnostics**	Run the scan diagnostic task to easily find frequently scanned files, extensions, and VMs, then use the results to exclude these items from being scanned.

For information about creating and using client tasks and the Client Task Catalog, see the **Trellix ePO - On-prem** documentation.

Using policies in Trellix ePO - On-prem

Policies enable you to configure managed products and apply the configuration to systems in your network, all from the **Trellix ePO - On-prem** console.

Policies are collections of settings that you create, configure, and apply, then enforce. Most policy settings correspond to settings that you configure for the **Trellix MOVE AntiVirus** client systems. Other policy settings are the primary interface for configuring and deploying the **Trellix MOVE AntiVirus** SVM and its components.

Trellix MOVE AntiVirus adds these categories to the Policy Catalog.

Trellix MOVE AntiVirus categories

Category	Description
Options	Configures the Quarantine Manager options that apply to both on-access scanner and on-demand scanner. Also, specifies the SVM assignment details for Multi-platform.
On Access Scan	Examines files on the computer as the user accesses them, and provides continuous, real-time detection of threats.
On Demand Scan	Configures the on-demand scan settings for the preconfigured scans that run on the SVM.
Share Cloud Solutions (Multi-platform only)	Enables you to specify that files and certificates with specific reputations are allowed to perform certain scan actions, as specified by scan rules.
SVM Manager Settings (Multi-platform only)	Configures the SVM Manager and autoscale settings required for SVM deployment and management.
SVM Settings	Specifies settings that apply to SVM configuration, scanning options, on-demand scan configurations required for SVM, and scan performance.

Trellix MOVE AntiVirus Common categories

Category	Description
Options	Allows you to configure the settings to defend files, services, and registry keys on virtual machines and to log events and alerts.

In each category, these predefined policies are available:

Trellix MOVE AntiVirus predefined policies

Policy	Description
McAfee Default	Defines the default policy that takes effect if no other policy is applied. You can duplicate this policy, but you can't delete or modify it.
My Default	Specifies predefined settings for the category.

You can use predefined policies as is, edit the **My Default** policies, or create custom policies.

For information about creating and using policies and the Policy Catalog, see the **Trellix ePO - On-prem** documentation.

Create a policy

Policies allow you to describe threat scanning behavior for specific virtual machines.

Before you begin

You installed the **Trellix MOVE AntiVirus** extension on the **Trellix ePO - On-prem** server.

By default, policies created in **Trellix ePO - On-prem** are not assigned to any groups or systems. When you create a policy, you add a custom policy to the Policy Catalog. You can create policies before or after a product is deployed.

Task

1. **Log on to Trellix ePO - On-prem as an administrator.**
2. **Select Menu → Policy → Policy Catalog, then select MOVE AntiVirus 4.10.x or MOVE AntiVirus Common 4.10.x from the Product drop-down list.**
3. **Click New Policy.**
4. **On the Create a new policy dialog box, configure the options, as required, then click OK.**
5. **Click the new policy that is created, then configure the policy options, as required.**
6. **Click Save.**

Assign a policy

You must assign a policy to the client systems for it to take effect.

Before you begin

You installed the **Trellix MOVE AntiVirus** extension on the **Trellix ePO - On-prem** server.

Task

1. **Log on to Trellix ePO - On-prem as an administrator.**
2. **In the System Tree, select the group containing the virtual machines where you want to apply the policy.**
3. **Select Menu → Systems → System Tree → Assigned Policies.**

4. **From the Product drop-down list, select MOVE AntiVirus 4.10.x or MOVE AntiVirus Common 4.10.x.**
5. **In the Actions column of the McAfee Default policy, select Edit assignments.**
6. **In the Inherit from list on the Policy Assignments page, select Break inheritance and assign the policy and settings below.**
7. **In the Assigned Policy list, select the policy you created.**
8. **Click Save.**
9. **To apply the policy immediately, send wake-up agent call.**

Results

The policies are not modified on client systems until the next agent-server communication that includes a **Collect and Send Properties** operation. This can be initiated from the agent on the client, or by sending wake-up agent call from **Trellix ePO - On-prem**.

Policy assignment (Agentless)

VM-based scan configuration is enabled by default. The **Trellix ePO - On-prem** administrator can enforce unique scan policies with exclusion to different groups, resource pool, or specific virtual machines protected by **Trellix MOVE AntiVirus** SVM on a hypervisor, even when **Trellix Agent** is not deployed to the client systems.

The on-access and on-demand scan policies can be applied to SVMs or to a specific virtual machine, or group. With VM-based scan configuration enabled by default, all VMs are protected by the on-access and on-demand scan policies, which are assigned to VM or group.

The on-access and on-demand scan policies can be assigned to the system using system-based assignment or rule-based assignment in **Trellix ePO - On-prem**.

Enable or disable policy collector

You can enable the **Policy Collector** to update the target SVMs with the latest on-access and on-demand scan policies.

Follow the steps below to enable or disable **Policy Collector**:

Task

1. **Login to Trellix ePO - On-prem.**
2. **Go to MOVE AntiVirus Deployment page.**
3. **In the Configuration tab, expand Agentless and then select Server Settings.**
4. **Select Edit.**
5. **Enable or disable Policy Collector.**

Note

> The **Policy Collector** dialog box appears.

6. **Select Yes.**

7. **Select Save.**

Results

You have enabled or disabled **Policy Collector** successfully.

Update SVMs with scan policies

You can run the policy collector to update the target SVMs with the latest on-access and on-demand scan policies. The policies and updates are enforced to SVM in the default policy collection interval, which is 60 minutes.

Tip

Best practice: Specify the policy collection interval for your environment, as needed.

Task

1. **Select Menu → Automation → MOVE AntiVirus Deployment → Configuration → Server Settings.**
2. **Click Run next to Run policy collector.**

   The **Policy collection completed successfully** message appears when policies are successfully collected.

   Important

   You can change the policy enforcement interval by navigating to **Menu** → **Automation** → **MOVE AntiVirus Deployment** → **Configuration** → **Server Settings** → **Edit**. You can also view the task log for policy collection (**MOVE AntiVirus:Policy collection task**) by navigating to **Menu** → **Automation** → **Server Task Log**. The policy collection task log is updated in the default policy collection interval, which is 60 minutes.

3. **Send wake-up agent call to the target SVMs.**

Assign an on-access scan policy to a group in Trellix ePO - On-prem

You can assign an on-access scan policy to a group in **Trellix ePO - On-prem**. This is applicable only for NSX-T environment.

Task

1. **Log on to Trellix ePO - On-prem as an administrator.**
2. **In the System Tree, select the group containing the virtual machines where you want to apply the policy.**
3. **Assign the policy to the group. For more information, see *Assign a policy* topic.**
4. **Log on to the NSX-T console as an administrator.**
5. **Click Security → Endpoint Protection Rules → Rules → Add policy.**
6. **Apply the same security policy to the NSX security group and wait for the policy reflection.**

   Note

   Make sure that the same set of client VMs are part of **Trellix ePO - On-prem** group and NSX security group.

7. **Run the policy collector in Trellix ePO - On-prem.**
8. **Send wake-up agent call to the SVMs, which these client VMs are protected with.**

Configuring policies

You can configure the **Trellix MOVE AntiVirus** client and SVM behavior with policy settings.

Policies for client	Policies for SVM
• Which SVM a client uses. • When files are scanned. • Which files and programs to exclude from scanning. • Where to send alerts. • What to do when a threat is found. • How to handle quarantined files. • How the SVM operates.	• Maximum size of the server cache. • The number of concurrent scans that an SVM policy can support. • Which port the SVM listens to for scan requests from clients. • The number assigned to a log file and size. • Which types of files to scan. • **Trellix GTI** sensitivity level. • On-demand and on-access scan settings.

Configuring permissions sets

A permission set is a group of access rights granted to a user account for specific features of a product. Permission sets only grant permissions — they never remove a permission.

All permissions to all products and features are assigned automatically to global administrators. Other users must have permission assigned manually. Global administrators can assign existing permission sets when creating or editing user accounts and when creating or editing permission sets.

For more information about permission sets, see the product documentation for your version of **Trellix ePO - On-prem**.

Trellix MOVE AntiVirus permission set

The **Trellix MOVE AntiVirus** software adds sections to the permission sets including the **MOVE AntiVirus SVM Manager** role.

Global administrators must grant permissions to users for the MOVE AntiVirus Common, MOVE AntiVirus Deployment, MOVE AntiVirus General, and MOVE AntiVirus Policy Permission sections, because no permissions are granted by default.

Permission section	Permission set	Description
MOVE AntiVirus Common	View policy and task settings	User can view the policy and task settings that are available in the MOVE AntiVirus Common

Permission section	Permission set	Description
		extension in **Trellix ePO - On-prem**.
	View and change policy and task settings	User can view and edit the policy and task settings that are available in the MOVE AntiVirus Common extension in **Trellix ePO - On-prem.**
MOVE AntiVirus Deployment	View/Edit Deployment MOVE AntiVirus Configuration	User can view and edit the MOVE AntiVirus Deployment configuration details in **Trellix ePO - On-prem**.
MOVE AntiVirus General	Run System Tag Info Command	This permission is used by the SVM Manager to fetch the system tag information, which is configured and assigned to the client systems.
MOVE AntiVirus Policy Permission	View policy and task settings	User can view the policy and tasks settings that are available in the MOVE AntiVirus extension in **Trellix ePO - On-prem**.
	View and change policy and task settings	User can view and edit the policy and tasks settings that are available in the MOVE AntiVirus extension in **Trellix ePO - On-prem**.

Other required permissions

The global administrator must give **Trellix ePO - On-prem** permissions to handle other areas that work with **Trellix MOVE AntiVirus** including queries, dashboards, and the Threat Event Log.

For these features...	These permissions sets are required
Dashboards	Dashboards, Queries and Reports
Queries	Queries and Reports
Policies	System Tree access, Policy Assignment Rules
Events on virtual machines	Systems, System Tree access, Threat Event Log

Using permission sets

A permission set specifies all permissions that apply to one object and controls users' level of access to features.

Trellix MOVE AntiVirus adds a permission group **MOVE AntiVirus** SVM Manager to each permission set.

Permission groups define the access rights to the features. **Trellix ePO - On-prem** grants all permissions for all products and features to global administrators. Administrators then assign user roles to existing permission sets or create permission sets.

Feature	Required permissions
Automatic responses	Automatic Responses, Event Notifications, plus any feature-specific permissions depending on the feature used (such as System Tree or queries).
Client tasks	• **Trellix MOVE AntiVirus** (Multi-platform) Tasks • **Trellix MOVE AntiVirus** (Agentless) Tasks
Dashboards and monitors	Dashboards
Policies	**Trellix MOVE AntiVirus** Policy
Queries	Queries and Reports
Server tasks	Server tasks
System Tree	Systems, System Tree access

Feature	Required permissions
Threat Event Log	Systems, System Tree access, Threat Event Log

Configure permission sets

Update the read/write permissions assigned to the user roles defined for your **Trellix ePO - On-prem** environment.

Task

1. **Log on to Trellix ePO - On-prem as an administrator.**
2. **Select Menu → User Management → Permission Sets.**
3. **Select a user role from the Permission Sets list.**
4. **Next to any Trellix MOVE AntiVirus permission, click Edit.**
5. **Select the permission level, as needed.**
6. **Click Save.**

Configuring Trellix MOVE AntiVirus settings

Configure settings that apply to all components and features of **Trellix MOVE AntiVirus** in the **MOVE AntiVirus Common 4.10.x** and **MOVE AntiVirus 4.10.x** extensions.

Protect Trellix MOVE AntiVirus resources (Multi-platform)

One of the first things that a malware tries to do during an attack is to disable your system security software. Configure Self-Protection in the **Options** policy under **MOVE AntiVirus Common 4.10.x** to prevent **Trellix MOVE AntiVirus** services, files, and registries from being stopped or modified.

Task

1. **Log on to Trellix ePO - On-prem as an administrator.**
2. **Select Menu → Policy → Policy Catalog, then select MOVE AntiVirus Common 4.10.x from the Product list.**
3. **From the Category list, select Options.**
4. **Click the name of an editable policy.**
5. **Under Self-Protection, enable these options.**

Options	Description
Enable Self-Protection	To prevent **Trellix MOVE AntiVirus** services and files, registries from being stopped or modified.
Enable Self-Protection for MOVE CLI	To protect the command-line utility from being accessed by unauthorized users.

6. **Click Save.**

Configure logging settings (Multi-platform)

Configure **Trellix MOVE AntiVirus** logging in the **Options** policy under **MOVE AntiVirus Common 4.10.x** to retrieve the software deployment and configuration details.

Task

1. **Log on to Trellix ePO - On-prem as an administrator.**
2. **Select Menu → Policy → Policy Catalog, then select MOVE AntiVirus Common 4.10.x from the Product list.**
3. **From the Category list, select Options.**
4. **Click the name of an editable policy.**
5. **Configure these settings on the page.**

Options	Actions
Events	• **Log events to Windows Application log** — Select to display alerts in the local system's Windows Event Log. • **Send events to McAfee ePO** — Select to display alerts in the **Trellix ePO - On-prem** Threat Event Log.
Logging	**Rotate log file content when the file size reaches____MB** — Type the maximum size for a log file to rotate it. Default size is 10 MB.

6. **Click Save.**

Configuring exclusions

Trellix MOVE AntiVirus enables you to fine-tune your protection by specifying items to exclude from scanning.

For example, you might need to exclude some file types to prevent a scanner from locking a file used by a database or server. A locked file can cause the database or server to fail or generate errors.

For this scan type...	Specify items to exclude	Where to configure	Use wildcards?
On-access scan	Files, file types, folders, and process exclusions	**On Access Scan** policy	Yes

For this scan type...	Specify items to exclude	Where to configure	Use wildcards?
On-demand scan	Files, file types, and folders	**On Demand Scan** policy	Yes

Every item in exclusion lists is mutually exclusive. Each exclusion is evaluated separately from the others in the list.

Note

To exclude a folder on Windows systems, append a backslash (\) character to the path. To exclude a folder on Linux systems, append a forward slash (/) character to the path.

Path exclusions

The **Trellix MOVE AntiVirus** product allows you to fine-tune the list of file types scanned including individual files, folders, and disks. You might need these exclusions because the scanners might scan and lock a file when that file is being used by a database or server. This might cause the database or server to fail or generate errors.

Note

When specifying the path exclusions, wildcards are supported.

(Windows system) All folder exclusion must append a backslash (\). For example, C:\temp\test\

If you do not append a backslash (\) for the specified path, the file ***test*** is excluded.

(Linux system) All folder exclusion must append a forward slash (/). For example, /temp/test/

If you do not append a forward slash (/) for the specified path, the file ***test*** is excluded.

Process exclusions (Multi-platform)

The **Trellix MOVE AntiVirus** product allows you to fine-tune the list of process types scanned including processes. You might need these exclusions because the scanners might scan and lock a process when that process is being used by a database or server. This might cause the database or server to fail or generate errors.

Note

When specifying the process exclusions, wildcards are not supported.

Wildcards in exclusions

You can use wildcards to represent characters in exclusions for files, folders, and detection names.

Valid wildcards

Wildcard character	Name	Represents
?	Question mark	Single character This wildcard applies only if the number of characters matches the length of the file or folder name. For example: The exclusion W?? excludes WWW, but doesn't exclude WW or WWWW. (Windows) This wildcard matches one character. For example: ?:\ABC matches C:\ABC and D:\ABC (Linux) This wildcard matches one character. For example: /?DEF/ matches /CDEF/
*	Asterisk	Multiple characters, except backslash (\). (Windows) This wildcard matches zero or more characters. For example: C:\ABC\*\XYZ matches C:\ABC\DEF\XYZ and C:\ABC\XYZ
**	Double asterisk	Zero or more of any characters, including backslash (\). (Windows system) This wildcard matches zero or more characters. For example: C:\ABC\**\XYZ matches C:\ABC\DEF\XYZ and C:\ABC\XYZ

(Windows) Wildcards can appear in front of a backslash (\) in a path. For example, C:\ABC\*\XYZ matches C:\ABC\DEF\XYZ.

(Linux) Wildcards can appear in front of a forward slash (/) in a path. For example, ?DEF matches /CDEF.

Root-level exclusions (Multi-platform)

Trellix MOVE AntiVirus requires an absolute path for root-level exclusions. This means that you can't use leading \ or ?:\ wildcard characters to match drive names at the root level.

Instead, you can use leading **\ wildcard characters in root-level exclusions to match drives and subfolders.

For example, **\test\ matches the following:

C:\test\

D:\test\

C:\temp\test\

D:\foo\test\

Root-level exclusions (Agentless)

For Windows systems

Trellix MOVE AntiVirus requires an absolute path for root-level exclusions. You can use leading ?:\ wildcard characters in root-level exclusions to match drives and subfolders.

For example, ?:\test\ matches the following:

C:\test\

D:\test\

System variables (Multi-platform)

These are the Windows system variables that are supported for Multi-platform.

System variable	Path
%ALLUSERSPROFILE%	C:\ProgramData
%CommonProgramFiles%	C:\Program Files\Common Files
%CommonProgramFiles(x86)%	C:\Program Files (x86)\Common Files (only in 64-bit version)
%CommonProgramW6432%	C:\Program Files\Common Files (only in 64-bit version)
%ProgramData%	%SystemDrive%\ProgramData

System variable	Path
%ProgramFiles%	%SystemDrive%\Program Files
%ProgramFiles(x86)%	%SystemDrive%\Program Files (x86) (only in 64-bit version)
%ProgramW6432%	%SystemDrive%\Program Files (only in 64-bit version)
%PUBLIC%	%SystemDrive%\Users\Public
%SystemDrive%	C:\
%SystemRoot%	%SystemDrive%\Windows
%windir%	%SystemDrive%\Windows

Import path exclusions from Endpoint Security Threat Prevention scan policies

If you are using Endpoint Security Threat Prevention in your environment, you can import the list of path exclusions that are defined in the on-access scan and on-demand scan policies of Endpoint Security Threat Prevention to **Trellix MOVE AntiVirus** scan policies.

Before you begin

- You installed the **Trellix MOVE AntiVirus** extension on the **Trellix ePO - On-prem** server.
- You installed the Endpoint Security Threat Prevention extension on the **Trellix ePO - On-prem** server.
- You have path exclusions list ready in the on-access scan and on-demand scan policies of Endpoint Security Threat Prevention.

Task

1. **Log on to Trellix ePO - On-prem as an administrator.**
2. **Select Menu → Policy → Policy Catalog, then select Endpoint Security Threat Prevention from the Product list.**
3. **From the Category list, select On Access Scan or On Demand Scan.**

   Note

   From the on-demand scan policy, you can import only the exclusions that are defined on the **Full Scan** tab.

4. **Next to the name of the policy where you want to import path exclusions, click Export.**

   a. **Next to the Download file, right-click the policy name and select Save link as....**
   b. **From the Save As window, browse to the location and click Save to save the xml file.**
5. **Select Menu → Policy → Policy Catalog, then select MOVE AntiVirus 4.10.x from the Product list.**
6. **From the Category list, select On Access Scan or On Demand Scan.**
7. **Click the name of an editable policy.**
8. **From Path Exclusions under the Exclusions option, click Import... to open the Import Exclusion Path dialog box.**
9. **Under Select the file to add exclusion path, click Choose File, then browse to the location, and select the xml file that is download from Endpoint Security Threat Prevention.**

   Note

   If you want to clear the existing exclusions, select **Clear existing exclusions**.

10. **Click OK to import the exclusions list.**
    You can now see that the path exclusions are imported.
11. **Click Save to save the changes in the policy.**

Configure client load per SVM (Multi-platform)

Depending on your environment, you can configure the load type for each SVM, which specifies the workload and activities on clients. Configure the client load for each SVM in the **SVM Settings** policy.

The available options are:

- **Low (Higher number of clients)** — Less file activity on clients per SVM. When clients have less file activity, SVM can handle more clients. Default number of clients is 300.
- **Medium (Moderate number of clients)** — Medium file activity on clients per SVM. Default number of clients is 250.
- **High (Fewer number of clients)** — More file activity on clients per SVM. When clients have more file activity, SVM can handle fewer clients. Default number of clients is 150.
- **Custom** — Customize workload and activities for your clients.

  Tip

  We recommend **250**. Increasing this value might cause performance issues or scan delays, or both.

Alerts for number of client connections and scan time

You can configure alerts for the number of client connections and scan time per SVM. Configure the **Alert me** option for each SVM in the **SVM Settings** policy.

The available options are:

- **When number of client connections to the SVM reaches____%** — Specify the SVM capacity level (in percentage) for number of client connections. A warning appears when the number of connected clients is greater than this level. Default value is 90.
- **When average scan time on the SVM exceeds____seconds** — Specify the SVM's average scan time (in seconds). A warning appears when the average scan time on the SVM exceeds this level. Default value is 10 seconds.

Scanning for threats on client computers

Types of scans

Scanning files for threats when the user accesses them protects against intrusions when they occur. Periodically scanning areas of your system that are most susceptible to infection ensures complete protection.

Trellix MOVE AntiVirus provides two types of scans: on-access scans and on-demand scans.

- **On-access scan** — Configure on-access scans to run on managed endpoints. When you access files, folders, and programs, the on-access scanner checks the operation and scans the item, based on criteria defined by the administrator. On-access scanning provides continuous and real-time detection of threats. To configure and schedule on-access scans, use the on-access scan policy settings.
- **On-demand scan** — Configure and schedule on-demand scans to run on managed endpoints. This scan type examines all files or files in a specific folder on virtual machines for potential threats during the time specified. On-demand scans supplement the continuous protection of on-access scanning. You can also schedule regular scans at times that do not interfere with your work.
  To configure and schedule on-demand scans, use these client task settings:

  - **Targeted On Demand Scan** — Allows you to select a system or a group of systems from the System Tree to initiate the on-demand scan.
  - Policy-based **On-Demand Scan** — Schedules the predefined on-demand scans. Configure the behavior of these scans in the policy settings for on-demand scan.

  The **Options** policy includes settings that apply to all scan types.

Trellix GTI working

If you enable **Trellix GTI** for the on-access or on-demand scanner, the scanner uses heuristics to check for suspicious files.

The scanner submits fingerprints of samples, or hashes, to a central database server hosted by **Trellix Labs** to determine if they are malware. By submitting hashes, detection might be made available sooner than when **Trellix Labs** publishes the next DAT release.

You can configure the sensitivity level that **Trellix GTI** uses when it determines if a detected sample is malware. The higher the sensitivity level, the higher the number of malware detections. However, allowing more detections can result in more false positives. The **Trellix GTI** sensitivity level is set to **Medium** by default. Configure the sensitivity level for each scanner in the **SVM Settings** policy.

Enable or disable Trellix GTI

Follow the steps to enable or disable **Trellix GTI** and to specify the **GTI timeout** value.

Task

1. **Log on to Trellix ePO - On-prem.**
2. **Go to Policy Catalog.**
3. **Select MOVE AntiVirus 4.10.0 as the Product and SVM Settings as the Category.**
4. **Select a policy.**
5. **Select Show Advanced.**
6. **Select Enable GTI and specify the GTI timeout value in seconds.**
   The **GTI timeout** value ranges from 1 to 10 seconds.
7. **Select Save.**

Note

You can specify the **GTI timeout** value only for **MOVE AntiVirus** Agentless.

Results

You have now enabled or disabled **Trellix GTI** and specified the **GTI timeout** value.

Configure common scan settings

To specify settings that apply to both on-access and on-demand scans, configure the **MOVE AntiVirus 4.10.x** → **Options** policy settings.

The common scan settings in the policy apply to all scans:

- **Quarantine Manager** (Multi-platform) — Specifies the quarantine location and the number of days to keep quarantined items before automatically deleting them.
- **Quarantine network share** (Agentless) — Specifies the specified network share where the quarantined files are stored. Make sure that you have write permission to the shared folder. **Trellix MOVE AntiVirus** supports only Windows share path for quarantine network share.
- **SVM Server Communication** (Multi-platform) — Specifies the scan server port for communicating with the client system.
- **SVM Assignment** (Multi-platform)
  - **Assign SVM using SVM Manager** — Specifies the IP address of the SVM manager for assigning the SVM using SVM Manager.
  - **Assign SVM manually** — Specifies the IP address of the SVM to assign the SVM manually.

Task

1. **Log on to Trellix ePO - On-prem as an administrator.**
2. **Select Menu → Policy → Policy Catalog, then select MOVE AntiVirus 4.10.x from the Product list.**
3. **From the Category list, select Options.**
4. **Click the name of an editable policy.**

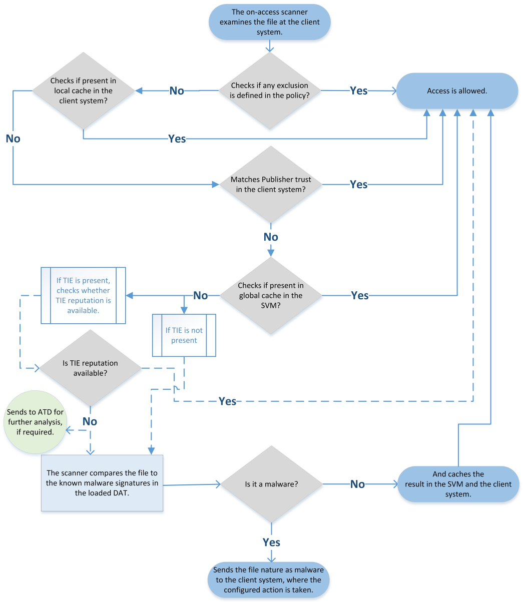
5. **Configure settings on the page, as required, then click Save.**

On-access scanning

The on-access scanner examines files on the computer as the user accesses them, and provides continuous, real-time detection of threats.

On-access scanning (Multi-platform)

The on-access scanner integrates with the system at the lowest levels (file system filter driver) and scans files where they first enter the system.


The on-access scanner examines the file at the client system.
Checks if any exclusion is defined in the policy?
Yes
Access is allowed.
No
Checks if present in local cache in the client system?
Yes
No
Matches Publisher trust in the client system?
Yes
No
Checks if present in global cache in the SVM?
Yes
No
If TIE is present, checks whether TIE reputation is available.
If TIE is not present
Is TIE reputation available?
Yes
No
Sends to ATD for further analysis, if required.
The scanner compares the file to the known malware signatures in the loaded DAT.
Is it a malware?
No
And caches the result in the SVM and the client system.
Yes
Sends the file nature as malware to the client system, where the configured action is taken.

The on-access scanner delivers notifications to the System Service interface when detections occur.

When an attempt is made to access or modify a file, the scanner intercepts the operation and takes these actions.

1. Examines the file at the client system.
2. Checks if any exclusion is defined in the policy. If any exclusion is defined for the file, the access is allowed.
3. If an exclusion is not defined, the scanner checks whether the file is present in local cache in the client system. If it is present, access is allowed.
4. If the file is not present in local cache, the scanner checks for publisher trust in the client system. If it matches, the access is allowed.
5. If the publisher trust does not match, the scanner checks for the file in global cache in the SVM. If the file is present, the access is allowed.
6. If the file is not present in global cache, the scanner compares the information in the file to the known malware signatures in the currently loaded DAT files.
    - If the file is clean, the result is cached and the read, write, or rename operation is granted. **Trellix MOVE AntiVirus** caches the result in the SVM and client system.

- If the file contains a threat, the scanner sends the file nature as malware to the client systems, where the configured action is taken.

On-access scanning with TIE and Intelligent Sandbox enabled

1. On-access scanner goes through the steps 1 through 4 of *How on-access scanning works*.
2. If the publisher trust does not match:
    - The client looks for the reputation in global cache in the SVM. If the reputation is available, the access is allowed based on the **Shared Cloud Solutions** policy assigned to the system.
    - If the reputation is not available in global cache in the SVM, the client sends the file hashes to the SVM for **TIE** lookup.
    - The SVM checks the reputation cache for the file hash. If the file hash is found, the SVM gets the reputation data from the SVM cache and sends the reputation to the client and the action is taken.
    - (SVM is connected to **TIE**) If the file hash is not found in the SVM cache and TIE server does not have the reputation:
        - (**Intelligent Sandbox** is present) If the policy on the endpoint determines that the file must be sent to **Intelligent Sandbox**, the server sends the file for further analysis. To send the file to **Intelligent Sandbox**, these requirements must be met:
            - **Advanced Threat Defense (ATD)** option is configured in the **Shared Cloud Solutions** policy on the **Trellix ePO - On-prem** server.
            - Size of the file is less than 10 MB
        - The TIE server returns the file hash's reputation to the SVM once the data is received from **Intelligent Sandbox** after analyzing the file.
3. **Trellix MOVE AntiVirus** takes action based on the **Shared Cloud Solutions** policy assigned to the system that is running the file.
4. The SVM sends threat details as threat events to **Trellix ePO - On-prem**.

Changing when files are scanned

You can change the client policy to determine which files are scanned for threats and when.

By default, files are scanned when they are read from or written to disk, or when opened for backup. The **Trellix Agent** program files and the User Profile Manager process are excluded from scans.

When files are written to disk, the on-access scanner examines these files:

- Incoming files written to the local drive.
- Files (new, changed, or files copied or moved from one drive to another) created on the local drive or a mapped network drive (if enabled with Multi-platform).

When files are read from disk, the scanner examines these files:

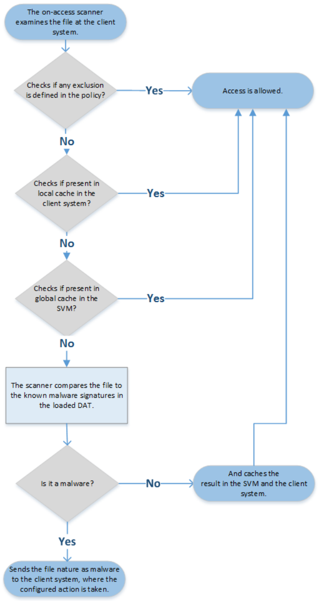
- Outgoing files read from the local drive or mapped network drives (if enabled with Multi-platform).
- Files trying to execute a process on the local drive.
- Files opened on the local drive.

Caution

Depending on your environment, selecting **On network drives** can degrade network performance.

On-access scanning (Agentless)

The on-access scanner integrates with the system at the lowest levels (file system filter driver) and scans files where they first enter the system.


The on-access scanner examines the file at the client system.
Checks if any exclusion is defined in the policy?
Yes
Access is allowed.
No
Checks if present in local cache in the client system?
Yes
No
Checks if present in global cache in the SVM?
Yes
No
The scanner compares the file to the known malware signatures in the loaded DAT.
Is it a malware?
No
And caches the result in the SVM and the client system.
Yes
Sends the file nature as malware to the client system, where the configured action is taken.

The on-access scanner delivers notifications to the System Service interface when detections occur.

When an attempt is made to access or modify a file, the scanner intercepts the operation and takes these actions.

1. Examines the file at the client system.
2. Checks if any exclusion is defined in the policy. If any exclusion is defined for the file, the access is allowed.
3. If an exclusion is not defined, the scanner checks whether the file is present in local cache in the client system. If it is present, access is allowed.
4. The scanner checks for the file in global cache in the SVM. If the file is present, the access is allowed.
5. If the file is not present in global cache, the scanner compares the information in the file to the known malware signatures in the currently loaded DAT files.
    - If the file is clean, the result is cached and the read, write, or rename operation is granted. **Trellix MOVE AntiVirus** caches the result in the SVM as part of global cache and client system as part of local cache.
    - If the file contains a threat, the scanner sends the file nature as malware to the client systems, where the configured action is taken.

Changing when files are scanned

You can change the client policy to determine which files are scanned for threats and when.

By default, files are scanned when they are read from or written to disk, or when opened for backup. The **Trellix Agent** program files and the User Profile Manager process are excluded from scans.

When files are written to disk, the on-access scanner examines these files:

- Incoming files written to the local drive.
- Files (new, changed, or files copied or moved from one drive to another) created on the local drive.

When files are read from disk, the scanner examines these files:

- Outgoing files read from the local drive.
- Files trying to execute a process on the local drive.
- Files opened on the local drive.

Configure on-access scan policy settings

These settings enable and configure on-access scanning, which includes specifying messages to send when a threat is detected and different settings based on process type.

Task

1. **Log on to Trellix ePO - On-prem as an administrator.**
2. **Select Menu → Policy → Policy Catalog, then select MOVE AntiVirus 4.10.x from the Products list.**
3. **Select On-Access Scan.**
4. **Click Edit for the name of an editable policy.**

   Policy Catalog page opens.
5. **Click Show Advanced.**
6. **Select Enable On-Access Scan to enable the on-access scanner and modify options.**
7. **Configure these settings:**

Options	Actions
On-access Scan	Under **Scan**, select any combination of: • **When writing to disk** • **When reading from disk** • **On network drives** • **Opened for backup (Multi-platform only)** • **Case-sensitivity Enabled on this machine** (applicable for **Trellix MOVE AntiVirus** 4.9.1 and above versions) ⚠ **Caution:** Depending on your environment, selecting **On network drives** can degrade network performance.

Options	Actions
	The supported file systems for Linux client system are ext2, ext3, ext4, btrfs, cifs, vfat, ISO9660, xfs, and nfs.
File types to scan	• **All files** — Select to scan all files. • **Default + Additional files** (Multi-platform only) — Select to scan the default file types or any additional file types. You can add, edit, and remove additional file types, which are included for scanning. By default, this option is selected. • **Following only** — Select to specify a list of file extensions to scan. You can add, edit, and remove file extensions that are included for scanning. Wildcards are supported, and exact matches are required. Do not include the period when specifying extensions. **Note:** Archive and MIME-encoded files are not scanned by default. This behavior is changed by modifying the SVM Settings policy. For more information about how to use wildcards when creating exclusions in VirusScan Enterprise or **Trellix MOVE AntiVirus**, see **Trellix** KnowledgeBase article KB54812.
Exclusions	**Path Exclusions** Add them to the **Path Exclusions** list. The **Trellix MOVE AntiVirus** product allows you to fine-tune the list of file types scanned including individual files, folders, and disks. You might need these exclusions because the scanners might scan and lock a file when that file is being used by a database or server. This might cause the database or server to fail or generate errors. When specifying the exclusions: • Wildcards are supported for path exclusions.

Options	Actions
	- (Multi-platform only) Windows system variables are supported, see *System variables* for the list of supported system variables. **Note:** (Agentless only) System variables are not supported. Using the **Import** option, you can browse to and select the exclusion rule file and add path exclusions. You can import exclusions from an on-access scan policy of **Endpoint Security** that has exclusions defined in it. You can refer to Import path exclusions from Endpoint Security Threat Prevention scan policies for more information. **Note:** A path exclusion entry ***.log** is available, so that the log files on the endpoints are not scanned. This improves the scanning performance of the client system.
	Process Exclusions (Multi-Platform only) Add them to the **Process Exclusions** list. The **Trellix MOVE AntiVirus** product allows you to fine-tune the list of process types scanned including processes. You might need these exclusions because the scanners might scan and lock a process when that process is being used by a database or server. This might cause the database or server to fail or generate errors. **Note:** Wildcards are not supported for process exclusions.
	Publisher Exclusions (Multi-Platform only) You can choose to trust the authenticated and signed files from different publishers, so that the scanning performance improves by optimized use

Options	Actions
	of resources at the SVM by sending fewer files for scanning from the endpoints. Here are the portable executable extensions that are excluded with this option: **.cpl, .exe, .dll, .ocx, .sys, .scr, .drv, .efi, .fon** • **Certificate revocation check** — This is used for the Windows Publisher Trust feature. You can configure the certificate revocation check with these options: ▫ **none** — **Trellix MOVE AntiVirus** does not do certificate revocation check. ▫ **for end Certificate locally** — **Trellix MOVE AntiVirus** checks whether the end certificate of the file is valid or has it being revoked. This is checked from the Windows CRL (local cache) that is maintained by Windows locally. ▫ **for full certificate chain locally** — **Trellix MOVE AntiVirus** checks the complete chain of certificate for a particular digitally signed file against the Windows CRL (local cache) that is maintained by Windows locally. ▫ **for end certificate locally as well as by getting CRL from the issuing CA** — **Trellix MOVE AntiVirus** checks against the Windows CRL (local cache) that is maintained by Windows locally and also checks against the issuing CA's (certificate authority) CRL that is done over network.

Options	Actions
	Note: When Windows Verify Trust (WVT) is enabled, the files digitally signed by Microsoft and **Trellix** are excluded from scanning. Currently there are 29 certificates (22 from Microsoft, 6 from **Trellix** and 1 from VeriSign) supported by the WVT feature. These certificates are selected and excluded from scanning based on the high probability usage. If the hash value of a file is not part of any of these 29 certificates, the file is sent for scanning, though the WVT feature is enabled.

8. **For the Actions options, configure Threat detection primary response. Make sure that you select a primary action and a secondary action.**

   Available primary actions:

   - **Delete files automatically and quarantine** — Once the threat is detected, it deletes and quarantines the threat to the specified location.

     Note

     (Agentless only) If no quarantine policy is configured, the **Delete files automatically and quarantine** action does not occur even if it is configured as the primary action.

   - **Delete files automatically** — Once the threat is detected, it deletes the threat.
   - **Deny access to files** — Prevents the user from accessing the file.

   Available secondary action:

   - **Deny access to files** — Prevents the user from accessing the file.

9. **Click Save to store the policy.**

On-demand scanning

The on-demand scanner examines the client systems for potential threats at regular intervals or at convenient times.

Use on-demand scans to supplement the continuous protection of the on-access scanner, such as to scan latent and inactive processes. You can also schedule regular scans at times that do not interfere with your work.

On-demand scans (Multi-platform)

The on-demand scanner searches files, folders, and registry for any malware that might have infected the computer.

You decide when and how often the on-demand scans occur. You can scan at a scheduled time or at startup.

The on-demand scanner intercepts the operation and takes these actions:

1. Examines the file at the client system.
2. Checks if any exclusion is defined in the policy. If any exclusion is defined for the file, the access is allowed.
3. If an exclusion is not defined, the scanner checks whether the file is present in local cache in the client system. If it is present, access is allowed.
4. If the file is not present in local cache, the scanner checks for publisher trust in the client system. If it matches, the access is allowed.
5. If the publisher trust does not match, the scanner checks for the file in global cache in the SVM. If the file is present, the access is allowed.
6. If the file is not present in global cache, the scanner compares the information in the file to the known malware signatures in the currently loaded DAT files.
    - If the file is clean, the result is cached and the read, write, or rename operation is granted. **Trellix MOVE AntiVirus** caches the result in the SVM and the client system.
    - If the file contains a threat, the scanner sends the file nature as malware to the client systems, where the configured action is taken. For example, if the action is configured to **Delete files automatically and quarantine** (the default setting), the scanner:
        - Deletes items that are detected as threats and saves copies in a non-executable format to the Quarantine folder.
        - Records the results in the activity log.
        - Notifies the user that it detected a threat in the file, and includes the item name and the action taken.
7. If the file doesn't meet the scanning requirements, the scanner doesn't check it. The scanner continues until all data is scanned.

The on-demand scan detection list is cleared when the next on-demand scan starts.

On-demand scanning with TIE and Intelligent Sandbox enabled

1. On-demand scanner goes through the steps 1 through 4 of *How on-demand scanning works*.
2. If the publisher trust does not match:
    - The client looks for the reputation in global cache in the SVM. If the reputation is available, the access is allowed based on the **Shared Cloud Solutions** policy assigned to the system.
    - If the reputation is not available in global cache in the SVM, the client sends the file hashes to the SVM for **TIE** lookup.
    - The SVM checks the reputation cache for the file hash. If the file hash is found, the SVM gets the reputation data from the SVM cache and sends the reputation to the client and the action is taken.
    - (SVM is connected to **TIE**) If the file hash is not found in the SVM cache and **TIE** server does not have the reputation:

  - (**Intelligent Sandbox** is present) If the policy on the endpoint determines that the file must be sent to **Intelligent Sandbox**, the server sends the file for further analysis. To send the file to **Intelligent Sandbox**, these requirements must be met:
    - **Advanced Threat Defense (ATD)** option is configured in the **Shared Cloud Solutions** policy on the **Trellix ePO - On-prem** server.
    - Size of the file is less than 10 MB
  - The TIE server returns the file hash's reputation to the SVM once the data is received from **Intelligent Sandbox** after analyzing the file.

3. **Trellix MOVE AntiVirus** takes action based on the **Shared Cloud Solutions** policy assigned to the system that is running the file.
4. The SVM sends threat details as threat events to **Trellix ePO - On-prem**.

Optimizing the scanning performance on systems

To minimize the impact that on-demand scans have on a system, specify performance options when configuring these scans.

On-demand scans summary

ODS Summary feature is helpful in tracking ODS happening on the **Trellix MOVE AntiVirus** Multi-platform environment.

You can track ODS details from Client, SVM, and **Trellix ePO - On-prem** (**Queries and Reports**). For more information see, ***Trellix ePO - On-prem*** *features leveraged by* ***Trellix MOVE AntiVirus***.

The ODS summaries on the clients are:

MP Clients: Information

Parameters	**Description**
ODS State	The state (started, in progress or stopped) of scan.
ODS start time	The time when the scan started.
ODS End time	The time when the scan stopped.
No. of Files Trusted by Publisher Check	The number of files passed during the certificate entry scan.
No. of Local Cache Hit	The number of files got missed during the scan.
No. of SVM Cache Hit	The number of files got missed during the scan from SVM side.

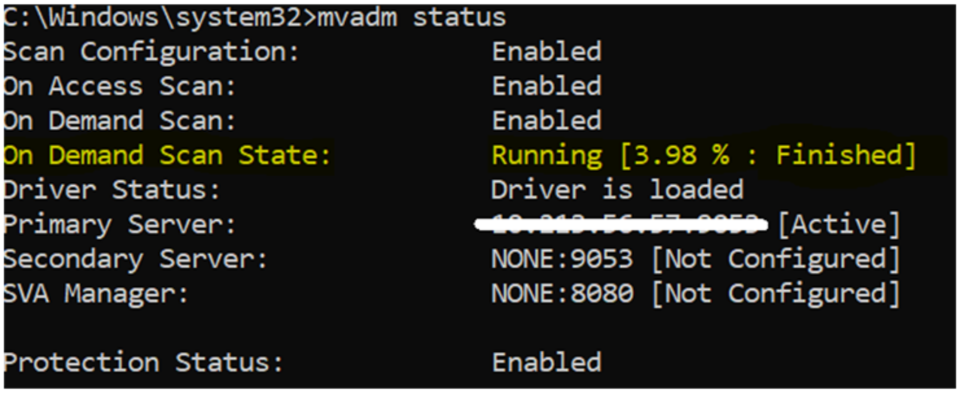
Parameters	Description
No. of Files Excluded by Path	The number of files excluded during the scan.
No of clean files found in SVM Scanning	The number of files found clean from SVM scan.
No. of Scan Timeout	The number of files got timed out during the configured time scan.
No. of Files Infected	The number of detected files found during the scan.
SVM IP Address	The IP address.
ODS Termination Reason	Reason for ODS fail.
AMCore Engine Version	The AMCore engine version.
AMCore Content Version	The AMCore content version.

View ODS stats on Client/SVM side

Client side

Shows the scan status (Running/Not Running) in percentage.

Run **mvadm status** command to view ODS current state (Running/Not Running). If ODS is running, this command shows the completion status in percentage.



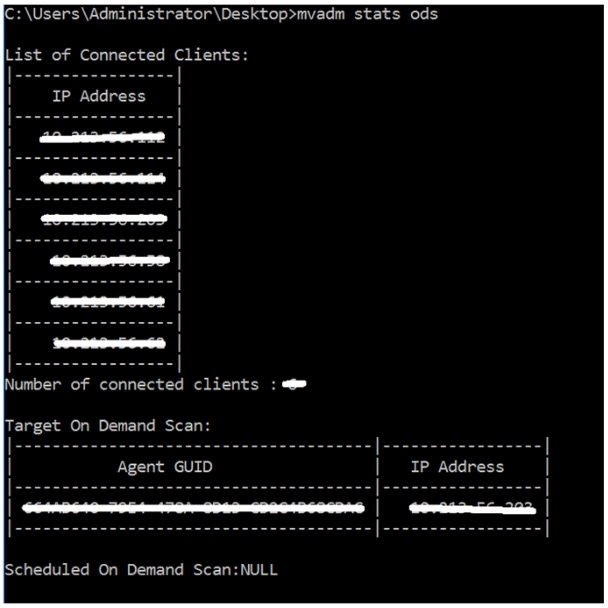
```
C:\Windows\system32>mvadm status
Scan Configuration:            Enabled
On Access Scan:                Enabled
On Demand Scan:                Enabled
On Demand Scan State:          Running [3.98 % : Finished]
Driver Status:                 Driver is loaded
Primary Server:               [redacted] [Active]
Secondary Server:              NONE:9053 [Not Configured]
SVA Manager:                   NONE:8080 [Not Configured]

Protection Status:             Enabled
```

SVM side

Shows the list of connected clients, total number of connected clients, clients running TODS and ODS.

Run **mvadm stats ods** command to get list of connected clients, clients running ODS, and clients running TODS.



```
C:\Users\Administrator\Desktop>mvadm stats ods

List of Connected Clients:
|----------------|
|   IP Address   |
|----------------|
|   [redacted]   |
|----------------|
|   [redacted]   |
|----------------|
|   [redacted]   |
|----------------|
|   [redacted]   |
|----------------|
|   [redacted]   |
|----------------|
|   [redacted]   |
|----------------|
Number of connected clients : [redacted]

Target On Demand Scan:
|------------------------------------|----------------|
|             Agent GUID             |   IP Address   |
|------------------------------------|----------------|
|             [redacted]             |   [redacted]   |
|------------------------------------|----------------|

Scheduled On Demand Scan:NULL
```

Note

If scheduled ODS is running on clients, it displays the output in same format as TODS else NULL.

On-demand scans logging

A new log level ODSLOG is defined on client side to get the detailed logging when ODS is running. It creates separate empty log file **ods.log** on starting the service.

The detail logging information is available only if you enable **loglevel == ODSLOG** in command prompt, else only ODS summary is displayed on the **Trellix ePO - On-prem**. The ODS related logging summary is part of **ods.log** file.

Define separate log level on client side (ODSLOG):

- When ODS/TODS starts on **MOVE** client side, log ODS related logging in separate file (**ods.log**).
- Print ODS summary in case ODS starts, end, stop in **ods.log** file.
- Keep log rotation and configurable file size same as existing **mvagent.log** file.

On-demand scans (Agentless)

The on-demand scanner searches files, folders, and registry for any malware that might have infected the computer.

You decide when and how often the on-demand scans occur. You can scan at a scheduled time or at startup.

The on-demand scanner intercepts the operation and takes these actions:

1. Examines the file at the client system.

2. Checks if any exclusion is defined in the policy. If any exclusion is defined for the file, the access is allowed.
3. If an exclusion is not defined, the scanner checks whether the file is present in local cache in the client system. If it is present, access is allowed.
4. The scanner checks for the file in global cache in the SVM. If the file is present, the access is allowed.
5. If the file is not present in global cache, the scanner compares the information in the file to the known malware signatures in the currently loaded DAT files.
    - If the file is clean, the result is cached and the read, write, or rename operation is granted. **Trellix MOVE AntiVirus** caches the result in the SVM as part of global cache and the client system as part of local cache.
    - If the file contains a threat, the scanner sends the file nature as malware to the client systems, where the configured action is taken. For example, if the action is configured to **Delete files automatically and quarantine** (the default setting), the scanner:
        - Deletes items that are detected as threats and saves copies in a non-executable format to the Quarantine folder.
        - Records the results in the activity log.
6. If the file doesn't meet the scanning requirements, the scanner doesn't check it. The scanner continues until all data is scanned.

The on-demand scan detection list is cleared when the next on-demand scan starts.

Optimizing the scanning performance on systems

To minimize the impact that on-demand scans have on a system, specify performance options when configuring these scans.

Enable and configure on-demand scans

You can modify the on-demand scan policy to enable system on-demand scans, and to determine the schedule and frequency of scans.

Before you begin

You installed the **Trellix MOVE AntiVirus** extension on the **Trellix ePO - On-prem** server.

By default, on-demand scans are not enabled. Other scan settings (for example, exclusions) are inherited from the client scan policy.

Task

1. **Log on to Trellix ePO - On-prem as an administrator.**
2. **Select Menu → Policy → Policy Catalog, then select MOVE AntiVirus 4.10.x from the Products list .**
3. **Select On Demand Scan.**
4. **Click Edit for the name of an editable policy.**

    Policy Catalog page opens.
5. **Click Show Advanced.**
6. **Configure these settings:**

Options	Actions
On-demand Scan	• Select **Enable on-demand scan**. • Select **Case-sensitivity Enabled on this machine** (applicable for **Trellix MOVE AntiVirus** 4.9.1 and above versions). • **Specify maximum time for each file scan ____ seconds** — Enter the appropriate amount for your environment. We recommend **45**. • **Run on-demand scan for every ____ days** — Enter the appropriate amount for your environment. We recommend **7**. • **On-demand scan will stop after____ minutes** — The amount of time to wait for a scan to complete, in minutes. Defaults to 150 minutes. This is the duration for which a **Trellix MOVE AntiVirus** Agent waits for scan response of a file from the SVM. Typically, file scans are fast. However, file scans might take longer time due to large file size, file type, or heavy load on the SVM. In case, the file scan takes longer than the scan timeout limit, the file access is allowed and a scan timeout event is generated. • **Cache scan results for files smaller than ____ MB (Multi-platform only)** — Set the maximum file size (in MB) up to which scan results must be cached. Defaults to 40 MB. Files smaller than this threshold are copied completely to the SVM and scanned. If the file is found to be clean, its scan result is cached based on its SHA-1 checksum for faster future access. Files larger than this size threshold are transferred in chunks that are requested by the SVM and scanned.
File Types to Scan	• **All files** — Select to scan all files. By default, this option is selected. • **Default + Additional files** (Multi-platform only) — Select to scan the default file types or any additional file types. You can add, edit, and

Options	Actions
	remove additional file types, which are included for scanning. - **Following only** — Select to specify a list of file extensions to scan. You can add, edit, and remove file extensions that are included for scanning. Wildcards are supported, and exact matches are required. Do not include the period when specifying extensions. **Note:** Archive and MIME-encoded files are not scanned by default. This behavior is changed by modifying the SVM Settings policy. For more information about how to use wildcards when creating exclusions in VirusScan Enterprise or **Trellix MOVE AntiVirus**, see **Trellix** KnowledgeBase article KB54812.
Path Exclusions	Add them to the **Path Exclusions** list. **Excluding scan items** — The **Trellix MOVE AntiVirus** product allows you to fine-tune the list of file types scanned including individual files, folders, and disks. You might need these exclusions because the scanners might scan and lock a file when that file is being used by a database or server. This might cause the database or server to fail or generate errors. When specifying the exclusions: - Wildcards are supported. - (Multi-platform only) Windows system variables are supported, see *System variables* for the list of supported system variables. **Note:** (Agentless only) System variables are not supported. Using the **Import** option, you can browse to and select the exclusion rule file and add path exclusions.

Options	Actions
	Note: A path exclusion entry ***.log** is available, so that the log files on the endpoints are not scanned. This improves the scanning performance of the client system.

7. **Click Save to store the policy.**

On-demand scan events and log details

Trellix MOVE AntiVirus generates alerts for on-demand scans. You can view the ODS statuses and event logs on **Trellix ePO - On-prem** and client systems.

The log files for on-demand and on-access scans are available in the installation directory.

Under loglevel, an ODS module is introduced that allows the **Trellix MOVE AntiVirus** to record the logs. To enable ODS logging, run the command: **mvadm loglevel enable ODS ALL.**

In the client log file, you can search for terms like **ODS: start scan** and **ODS: scan complete** to find the status on-demand scan.

(Multi-platform only) You can also view the ODS status from the local system's Windows Event Log on the client system. (Event: **On-Demand Scan Started on winvistax64mp.moveauto.com using engine version 5600.1067 and dat version 7203.0000**)

Trellix MOVE AntiVirus generates alerts for on-demand scans. These alerts can be displayed in any of these locations:

- The local system's Windows Event Log
- The **Trellix ePO - On-prem** Threat Event Log
- The local system as a **Trellix** notification area pop-up menu

Server on-demand scan events (Multi-platform)

Event ID	Event message
36984	On-demand scan started.
36985	On-demand scan completed.
36986	On-demand scan terminated. Scan time limit reached.

Event ID	Event message
36987	On-demand scan terminated. Scan disabled in policy.
36988	On-demand scan terminated. Exceeded maximum number of concurrent scans.
36989	High on-demand scan terminated. Scan failure on client.
36990	High on-demand scan terminated. Unexpected termination.
37009	Threat detected.
37014	On-demand scan events summary report.

Server on-demand scan events (Agentless)

Event ID	Event message
37055	On-demand scan started.
37056	On-demand scan completed.
37057	On-demand scan found malware.
37058	On-demand scan failed to start.
37059	On-demand scan terminated. Scan time limit reached.
37060	On-demand scan terminated. Scan target powered off.
37061	On-demand scan terminated. Scan disabled in policy.

Event ID	Event message
37062	On-demand scan resumed.
37076	Malware detected and successfully deleted.

Targeted on-demand scans

The targeted on-demand scan feature allows the administrator to select a system or a group of systems where to initiate the on-demand scan.

When the admin initiates the targeted on-demand scan on the client system, **Trellix Agent** schedules the client task on the client system. The SVM picks the client task, then runs the scan on the client system, depending on the slot availability for the scan. **Trellix Agent** monitor shows the status such as TODSTask becomes active, TODSTask is successful, and TODSTask is finished, but this is not the actual on-demand scan status. You can view the on-demand scan status and event logs on **Trellix ePO - On-prem** and client systems.

The SVM runs the specified maximum concurrent targeted on-demand scans per SVM defined by the administrator. When the SVM has reached the maximum number of targeted on-demand scans, the recently initiated on-demand scan runs later when the targeted on-demand scan slot is available.

Example 1

Consider a scenario where:

- **Restrict number of on-demand scans to____per SVM** is set as 2
- **Restrict number of targeted on-demand scans to____per SVM** is set as 2
- No on-demand scan is running currently
- Two targeted on-demand scans are running currently

With these assumptions, if you configure one more targeted on-demand scan, the newly scheduled targeted on-demand scan starts when one of the existing targeted on-demand scans finishes.

Example 2

Consider a scenario where:

- **Restrict number of on-demand scans to____per SVM** is set as 2
- **Restrict number of targeted on-demand scans to____per SVM** is set as 2
- One or two on-demand scans are running currently
- Two targeted on-demand scans are running currently

With these assumptions, if you configure one more targeted on-demand scan, the newly scheduled targeted on-demand scan starts when one of the existing targeted on-demand scans finishes.

Configure targeted on-demand scans

Change the **SVM Settings** policy to enable on-demand scanning, and to set the concurrent scan value as needed.

Before you begin

You installed the **Trellix MOVE AntiVirus** extension on the **Trellix ePO - On-prem** server.

By default, on-demand scans are disabled. Other scan settings (for example, exclusions) are inherited from the client on-demand scan policy.

Task

1. **Log on to Trellix ePO - On-prem as an administrator.**
2. **Select Menu → Policy → Policy Catalog, then from the Product list select MOVE AntiVirus 4.10.0.**
3. **From the Category list, select SVM Settings.**
4. **Click the name of an editable policy.**
5. **Under Concurrent on-demand scans, configure these settings, then click Save.**

To do this...	Do this...
Restrict number of targeted on-demand scans to____per SVM	Enter the appropriate value for your environment. **Note:** The default value is **1**. Increasing this value reduces the performance.

Create and run targeted on-demand scan

Select a system or a group of systems from the **System Tree** and initiate the targeted on-demand scan.

Before you begin

- You installed the **Trellix MOVE AntiVirus** extension on the **Trellix ePO - On-prem** server.
- You enabled the **Enable on-demand scan** option in the **On Demand Scan** policy.
- You configured **Restrict number of targeted on-demand scans to____per SVM** in the **SVM Settings** policy.
- A new ODS does not start if an ODS is currently running on the targeted system.

Task

1. **Log on to the Trellix ePO - On-prem server as an administrator.**
2. **Select Menu → Systems → System Tree.**
3. **Select the VMs you want to run the targeted on-demand scan.**
4. **Click Actions → MOVE → Targeted ODS.**

Note

(For Agentless) If any target VM is turned off, **Trellix ePO - On-prem** sends the task once the VM is turned on, then SVM initiates the scan.

5. **On the Schedule page, schedule the task, then click Next.**
6. **On the Summary page, review the task details and click Save to run the on-demand scan.**

Create and run targeted on-demand scan client task (Multi-platform)

Select a system or a group of systems from the **System Tree** and assign a client task to initiate the targeted on-demand scan.

Before you begin

- You installed the **Trellix MOVE AntiVirus** extension on the **Trellix ePO - On-prem** server.
- You enabled the **Enable on-demand scan** option in the **On Demand Scan** policy.
- You configured **Restrict number of targeted on-demand scans to____per SVM** in the **SVM Settings** policy.
- A new on-demand scan does not start if the on-demand scan is already running on the targeted system.

Task

1. **Log on to the Trellix ePO - On-prem server as an administrator.**
2. **Select Menu → Policy → Client Task Catalog.**
3. **From Client Task Types, select MOVE AntiVirus 4.10.x → Targeted On-Demand Scan [Multi-Platform].**
4. **Click the name of an existing client task or click New Task, then confirm the task type.**
5. **Configure the Task Name and Description on each tab. Also provide Folder Path (Optional), then click Save.**
6. **Click Assign, specify the servers where you want to assign the task, then click OK.**
7. **Click Schedule to schedule the task.**

Configure deferred scan settings (Multi-platform)

The deferred scan feature optimizes file scanning for files where the previous scan timed out because of large file size, file structure, or file composition.

Before you begin

You installed the **Trellix MOVE AntiVirus** extension on the **Trellix ePO - On-prem** server.

When the previous on-access scan timed out, scanning for a file starts again with an increased or new timeout, depending on the file size. You can configure this timeout value and the file size using the **Trellix ePO - On-prem** server.

For an on-demand scan, the scanning for a file starts according to the timeout based on file size value specified in the deferred scan policy.

Task

1. **Log on to Trellix ePO - On-prem as an administrator.**
2. **Select Menu → Policy → Policy Catalog, select MOVE AntiVirus 4.10.x from the Product drop-down list, then select On-Access Scan or On-Demand Scan from the Category drop-down list.**
3. **Click New Policy or click the name of an existing policy to edit it.**
4. **Type a name for the new policy (for example,** `MOVE AV Scan Policy`**), then click OK.**

5. **Under Deferred Scan (Multi-Platform only), select Enable on-access deferred scan or Enable on-demand deferred scan and configure these file size ranges and scan timeout values, then click Save.**

File size range	Scan timeout
> 40 MB and ≤200 MB	480 seconds
> 200 MB and ≤4096 MB	900 seconds
> 4096 MB and greater	1800 seconds

Client notifications for deferred scans

If the deferred scanning is incomplete after reaching the maximum timeout, access to the file is allowed.

These client notifications appear to the user on the client system for successful on-access scanning or scan timeouts:

- Deferred scan completed for file **<C:\Test\file name>**. File is safe to access.
- Deferred scan is in progress for file **<C:\Test\file name>**. (A thread in svchost.exe process took 45 seconds for scanning. Hence, access denied.)
- Deferred scan is timed out for file **<C:\Test\file name>**. Hence, access allowed.
- Deferred scan failed for file **<C:\Test\file name>** due to some internal error. Hence, access denied.
- Deferred scan failed for file **<C:\Test\file name>**. Hence, access denied.
- Access Denied: Deferred scan is in progress for file **<C:\Test\file name>**.
- Deferred scan completed for file **<C:\Test\file name>**. File is not accessible.
- Deferred scan completed for file **<C:\Test\file name>**. File is deleted.

Note

The client notifications do not appear for on-demand scan.

Scan Diagnosis

Identify frequently scanned items from Trellix ePO - On-prem (Agentless)

Select an SVM or a group of SVMs from the **System Tree** and assign a client task to calculate and display frequently scanned files, extensions, and VMs. You can include these results in the path exclusion policies to exclude them from being scanned.

Before you begin

You installed the **Trellix MOVE AntiVirus** extension on the **Trellix ePO - On-prem** server.

Task

1. **Log on to Trellix ePO - On-prem as an administrator.**
2. **Select Menu → Policy → Client Task Catalog.**
3. **From Client Task Types, select MOVE AntiVirus 4.10.x → Scan Diagnostics [Agentless].**
4. **Click the name of an existing client task or click New Task and confirm the task type.**
5. **Configure these settings on each tab, then click Save.**
   - **Task Name** — Specifies a unique name for the task.
   - **Description** — Specifies a description about the task.
   - **Diagnosis Time** — Specifies a description about the task.
6. **Click Assign, specify the SVM where you want to assign the task, then click OK.**
7. **Click Schedule to schedule the task.**
   At the end of specified minutes, the **Trellix ePO - On-prem** completes the analysis and displays the results. The default allowed time limit is 10 minutes.
8. **Select Menu → Reporting → Queries & Reports, then select MOVE AntiVirus 4.10.x [Agentless] under Trellix Groups to view and run these scan diagnostic queries:**
   - **MOVE AntiVirus: Top 10 Scanned File Extensions for each SVM** — Lists the top 10 file extensions scanned by the SVM.
   - **MOVE AntiVirus: Top 10 Scanned Files for each SVM** — Lists the top 10 files scanned by the SVM.
   - **MOVE AntiVirus: Top 10 Scanned Virtual Machines for each SVM** — Lists the top 10 virtual machines that are sending maximum scan and checksum requests.

Identify frequently scanned items from command line (Agentless)

Use the scan diagnostic command-line tool to calculate and display frequently scanned files, extensions, and VMs, on a system running the Agentless software. You can include these results in the path exclusion policies to exclude them from being scanned.

Before you begin

- Make sure that the user is a root user, or has sudo permissions.
- The name of the VM is resolved only when the vCenter is successfully registered in the SVM Settings policy using **Trellix ePO - On-prem**. Otherwise, only the VM ID appears.

Access the command line interface (CLI) of the SVM to create and display this report.

This diagnostic tool captures these details:

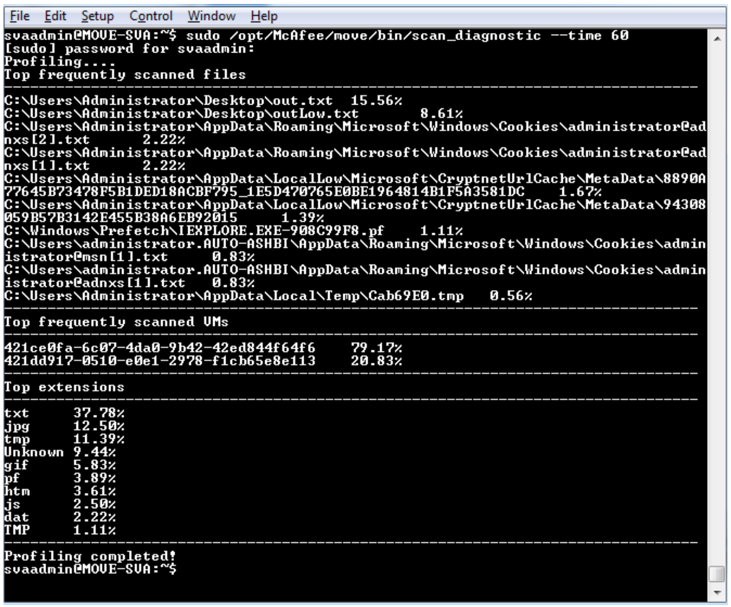
- Top 10 file scan requests.
- Top 10 file extensions.
- Top 10 virtual machines that are sending scan and checksum requests.

Task

1. **To identify the frequently scanned files, run the command:**
   `>cd /opt/McAfee/move/bin>sudo ./scan_diagnostic` or `sudo /opt/McAfee/move/bin/scan_diagnostic`.
   These parameters are available:

Option	Definition
--help	Shows how to use the command and its options.
--time arg	Specifies the time period, in seconds, set for calculating the frequently scanned files. For example, 60 seconds.
--elements arg	Specifies the number of entries to be captured and displayed in the result.
--path arg	Specifies the output folder path. The default path is **/opt/McAfee/move/log**.

At the end of specified minutes, the tool completes the analysis and displays the results. The default allowed time limit is 1 minute.



```
svaadmin@MOVE-SVA:~$ sudo /opt/McAfee/move/bin/scan_diagnostic --time 60
[sudo] password for svaadmin:
Profiling....
Top frequently scanned files
------------------------------------------------------------------------------
C:\Users\Administrator\Desktop\out.txt  15.56%
C:\Users\Administrator\Desktop\outLow.txt       8.61%
C:\Users\Administrator\AppData\Roaming\Microsoft\Windows\Cookies\administrator@ad
nxs[2].txt      2.22%
C:\Users\Administrator\AppData\Roaming\Microsoft\Windows\Cookies\administrator@ad
nxs[1].txt      2.22%
C:\Users\Administrator\AppData\LocalLow\Microsoft\CryptnetUrlCache\MetaData\8890A
77645B73478F5B1DED18ACBF795_1E5D470765E0BE1964814B1F5A3581DC    1.67%
C:\Users\Administrator\AppData\LocalLow\Microsoft\CryptnetUrlCache\MetaData\94308
059B57B3142E455B38A6EB92015     1.39%
C:\Windows\Prefetch\IEXPLORE.EXE-908C99F8.pf    1.11%
C:\Users\administrator.AUTO-ASHBI\AppData\Roaming\Microsoft\Windows\Cookies\admin
istrator@msn[1].txt     0.83%
C:\Users\administrator.AUTO-ASHBI\AppData\Roaming\Microsoft\Windows\Cookies\admin
istrator@adnxs[1].txt   0.83%
C:\Users\Administrator\AppData\Local\Temp\Cab69E0.tmp   0.56%
------------------------------------------------------------------------------
Top frequently scanned VMs
------------------------------------------------------------------------------
421ce0fa-6c07-4da0-9b42-42ed844f64f6    79.17%
421dd917-0510-e0e1-2978-f1cb65e8e113    20.83%
------------------------------------------------------------------------------
Top extensions
------------------------------------------------------------------------------
txt     37.78%
jpg     12.50%
tmp     11.39%
Unknown 9.44%
gif     5.83%
pf      3.89%
htm     3.61%
js      2.50%
dat     2.22%
TMP     1.11%
------------------------------------------------------------------------------
Profiling completed!
svaadmin@MOVE-SVA:~$
```

2. **(Optional) Change the time limit by editing the svaconfig.xml file located at /opt/McAfee/move/etc/.**

Note

To stop the scan diagnostic tool while it is collecting the data, use the **Ctrl+C** keys.

Identify frequently scanned items from Trellix ePO - On-prem (Multi-platform)

Select one or a group of SVMs from the **System Tree** and assign a client task to calculate and display frequently scanned files, extensions, processes, and VMs. You can include these results in the path exclusion policies to exclude them from being scanned.

Before you begin

You installed the **Trellix MOVE AntiVirus** extension on the **Trellix ePO - On-prem** server.

Task

1. **Log on to Trellix ePO - On-prem as an administrator.**
2. **Select Menu → Policy → Client Task Catalog.**
3. **From MOVE AntiVirus 4.10.x under Client Task Types, select Scan Diagnostics [Multi-Platform].**
4. **Click the name of an existing client task or click New Task, then confirm the task type.**
5. **Configure these settings on each tab, then click Save.**
    - **Task Name** — Specifies a unique user-friendly name for the task.
    - **Description** — Specifies some user-friendly description about the task.
    - **Diagnosis Time** — Specifies the time period, in minutes, set for calculating the frequently scanned files. for example 1-10 minutes.
6. **Click Assign, select one SVM or a group of SVMs where you want to assign the task, then click OK.**
7. **Click Schedule to schedule the task.**
   At the end of specified minutes, the **Trellix ePO - On-prem** server completes the analysis and displays the results. The default allowed time limit is 10 minutes.
8. **Select Menu → Reporting → Queries & Reports and select MOVE AntiVirus 4.10.x [Multi-Platform] under Trellix Groups to view and run these scan diagnostic queries:**
    - **MOVE AntiVirus: Top 10 Scanned File Extensions for each SVM** — Lists the top 10 file extensions scanned by the SVM.
    - **MOVE AntiVirus: Top 10 Scanned Files for each SVM** — Lists the top 10 files scanned by the SVM.
    - **MOVE AntiVirus: Top 10 Scanned Processes for each SVM** — Lists the top 10 processes scanned by the SVM.
    - **MOVE AntiVirus: Top 10 Scanned Virtual Machines for each SVM** — Lists the top 10 virtual machines that are sending maximum scan and checksum requests.

Note

This data is rolled over every 7 days.

Identify frequently scanned items from command line (Multi-platform)

The scan diagnostic tool calculates and displays frequently scanned processes, files, extensions, and VMs. You can include these files in the path and process exclusion policies. These specified files are excluded from scans when they are written by a trusted process.

Before you begin

You must have administrator permissions to perform this task.

Access the SVM command line interface (CLI) on the SVM virtual machine to create and display this report.

This diagnostic tool captures these details:

- Top 10 file scan requests
- Top 10 file extensions
- Top 10 processes
- Top 10 virtual machines that are sending maximum scan and checksum requests.

Task

1. **Open the SVM CLI: click Start → Programs → McAfee → MOVE AV Server command prompt.**

   Note

   This command prompt has administrator rights.

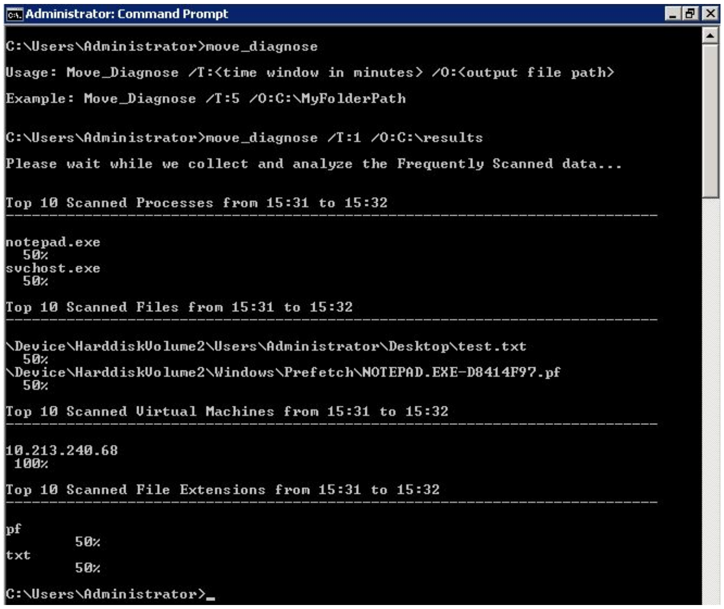
   At this command prompt, you can type commands that activate the mvadm utility to perform administration tasks on the SVM.

2. **To calculate the frequently scanned files, run this command:**

   ```
   move_diagnose /T: <Time Window> /O: < Output File>
   ```

Option	Definition
T	The time period, in minutes, set for calculating the frequently scanned files. For example, 3 minutes.
O	Full path of the output file for storing the results.

At the end of specified minutes, the tool completes the analysis and displays the results. The default allowed time limit is 10 minutes.



```
C:\Users\Administrator>move_diagnose

Usage: Move_Diagnose /T:<time window in minutes> /O:<output file path>

Example: Move_Diagnose /T:5 /O:C:\MyFolderPath

C:\Users\Administrator>move_diagnose /T:1 /O:C:\results

Please wait while we collect and analyze the Frequently Scanned data...

Top 10 Scanned Processes from 15:31 to 15:32
---------------------------------------------------------------------------

notepad.exe
  50%
svchost.exe
  50%

Top 10 Scanned Files from 15:31 to 15:32
---------------------------------------------------------------------------

\Device\HarddiskVolume2\Users\Administrator\Desktop\test.txt
  50%
\Device\HarddiskVolume2\Windows\Prefetch\NOTEPAD.EXE-D8414F97.pf
  50%

Top 10 Scanned Virtual Machines from 15:31 to 15:32
---------------------------------------------------------------------------

10.213.240.68
 100%

Top 10 Scanned File Extensions from 15:31 to 15:32
---------------------------------------------------------------------------

pf
        50%
txt
        50%

C:\Users\Administrator>_
```

3. **(Optional) Change the time limit by configuring the registry settings in HKLM\System\CurrentControlSet\services\mvserver\Parameters\diagnostic\FrequentlyScanMaxTimeOutWindow.**

Managing Trellix MOVE AntiVirus

Manage **Trellix MOVE AntiVirus** by responding to threat detections, managing quarantined items, and periodically analyzing your protection.

Keeping your protection up to date

Trellix MOVE AntiVirus depends on the engine and information in the content files to identify and act on threats. Every day, **Trellix Labs** releases new content files to address new threats.

To update systems managed by **Trellix ePO - On-prem**, use the Main Repository. The Main Repository on the **Trellix ePO - On-prem** server maintains the latest versions of the engine and content files.

For Agentless SVM, AutoUpdate for DAT files is disabled. Use **Trellix ePO - On-prem** to create a client task and update to the latest versions of the engine and DAT files.

Responding to detections

When a threat occurs, the **Trellix MOVE AntiVirus** configuration determines the threat detection method and response.

If **Trellix MOVE AntiVirus** is configured to **Delete files automatically and quarantine** (the default setting), the scanner deletes items that are detected as threats and saves copies in a non-executable format to the Quarantine folder. If the file can't be deleted, the scanner denies access to the file.

Unwanted program detection

The on-access and on-demand scanners detect unwanted programs using policy settings that you configured and DAT files.

When a detection occurs, the scanner that detected the unwanted program applies the action that you configured for that scanner.

Review the information in the log file, then decide whether to take any of these additional actions:

- Fine-tune the settings for the scanner to make your scans more efficient.
- Exclude unwanted program and files from detection. If a legitimate program was detected (false positive), configure it as an exclusion.

On-access scan detections

When a threat is detected, the on-access scanner responds according to the settings in the On-Access Scan policy.

Review the information in the activity log to decide whether to take more actions:

- Fine-tune the settings for scan to make your scans more efficient. For example, exclude legitimate files and delete known threats from the quarantine.

- Configure the scanner to:
  - **Delete files automatically and quarantine** — Deletes and quarantines the item that contains the threat.
  - **Delete files automatically** — Deletes the item that contains the threat.
  - **Deny access to files** — Prevents the user from accessing files with detected threats.
- Configure the scanner to display a message to users when a threat is detected.

On-demand scan detections

When an on-demand detection occurs, the scanner response depends on the type of on-demand scan.

For targeted on-demand scans, the scanner uses **Targeted On-Demand Scan** client task settings. For policy-based on-demand scans, the scanner uses On-Demand Scan policy settings.

Review the information in the log file to decide whether to take more actions:

- Fine-tune the settings for the scan to make your scans more efficient. For example, exclude legitimate files and delete known threats from the quarantine.
- Configure the scanner to prompt for action.
- Configure the scanner to:
  - **Delete files automatically and quarantine** — Deletes and quarantines the item that contains the threat.
  - **Delete files automatically** — Deletes the item that contains the threat.
  - **Notify only** — Notifies when accessed an item that contains the threat.

Quarantined items

Trellix MOVE AntiVirus deletes items that are detected as threats and saves copies in a non-executable format to the Quarantine folder.

You can restore a quarantined item.

Configure the settings for quarantine

Configure Quarantine Manager settings in the **Options** policy, including the location of quarantined items and how long to keep them.

Task

1. **Log on to Trellix ePO - On-prem as an administrator.**
2. **Select Menu → Policy → Policy Catalog, then select MOVE AntiVirus 4.10.x from the Product list.**
3. **From the Category list, select Options.**
4. **Click the name of an editable policy.**
5. **Configure the Quarantine Manager settings, then click Save.**

For	Option	Description
Multi-platform	**Quarantine Directory**	Specify where quarantined items are stored by changing the quarantine directory. **Note:** Mapped network drives and UNC network path names are not supported.
Agentless	**Quarantine network share**	Quarantined files are stored on the specified network share. The share is mounted as CIFS, so the remote share must support this protocol. Read and write permissions are required. **Trellix MOVE AntiVirus** supports only Windows share path for quarantine network share. Linux share path is not supported for quarantine network share. Enter the IP address or FQDN so that it can be resolved by the SVM. How this is entered depends on the environment and how the SVM is configured.
	Network domain name	The domain used to access the specified share.
	Network user name	The user name used to access the specified share.
	Network password	The password used to access the specified share.

For	Option	Description
	SMB Versions	Select the required SMB version to access the specified share (Default is 2.1).

Restore quarantined items (Multi-platform)

Trellix MOVE AntiVirus deletes any items that are detected as threats, converts a copy of the item to a non-executable format, and saves it in the **Quarantine** folder.

Before you begin

You installed the **Trellix MOVE AntiVirus** extension on the **Trellix ePO - On-prem** server.

You can restore a quarantined item.

Task

1. **Log on to the Trellix ePO - On-prem server as an administrator.**
2. **Select Menu → Policy → Client Task Catalog.**
3. **From Client Task Types, select MOVE AntiVirus 4.10.x → Restore from Quarantine (Multi-Platform).**
4. **Click the name of an existing client task or click New Task, then confirm the task type.**
5. **Configure these settings on each tab, then click Save.**

Tab	Description
Task Name	Specifies a unique name for the task.
Description	Specifies a description about the task.
Detection name	Specifies the exact detection name of the item to restore from quarantine. You can find the **Threat Name** under **Menu → Reporting → Threat Event Log**. If TIE is disabled, the detection name of the item might be **Artemis!EB51D377817C**, **RDN/Generic.dx!dqq** If TIE is enabled, the detection name of the item might be **TIE!4414f6c4303c2ce9a23261a880b3ee6b3ef4f378**. The detection name of the item is prefixed with **TIE!**

Tab	Description
	and suffixed with the SHA-1 reputation value of the item.

6. **Click Assign, specify the servers where you want to assign the task, then click OK.**
7. **Click Schedule to schedule the task.**

Note

> You can also use the **mvadm** command on the client system to restore the quarantined items: **mvadm q restore <Detection_Name>**

Quarantined items (Agentless)

Trellix MOVE AntiVirus (Agentless) implements a remote quarantine system, where quarantined files are stored on an administrator-specified network share.

The quarantine network share is mounted on the SVM during policy enforcement at **/mnt/quarantine** using the Common Internet File System (CIFS) protocol. If mounting fails, the **Quarantine Mount Failed** event is generated and mounting is tried at the next policy enforcement.

A file is quarantined when:

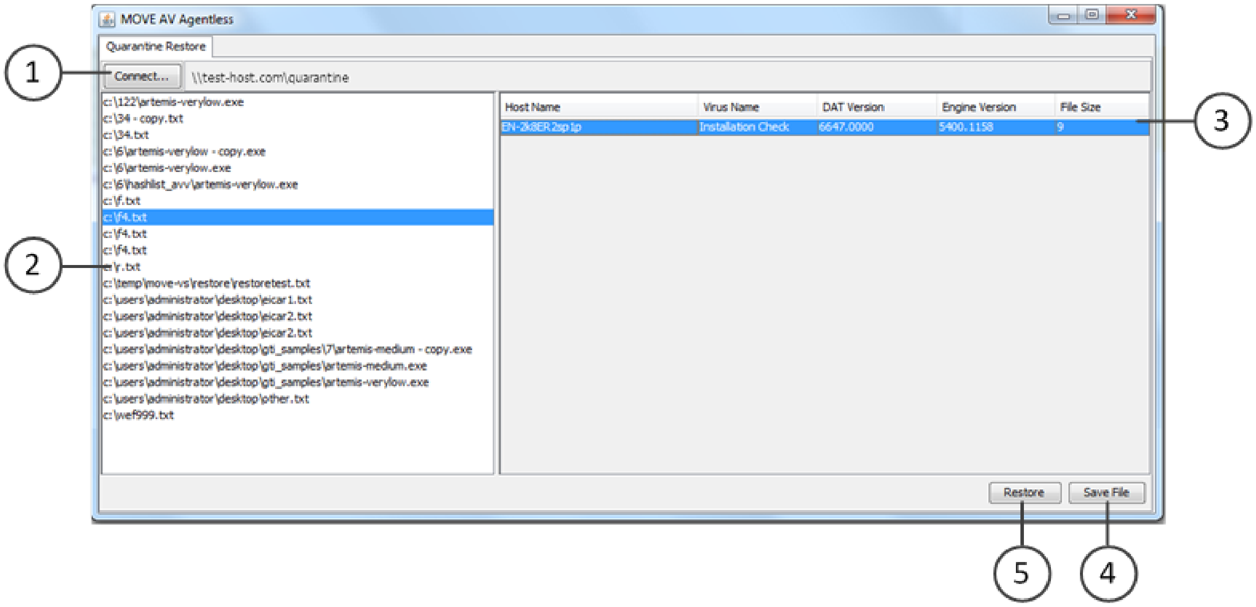
- The **Quarantine network share** configuration, which is present in the **Options** policy, is mounted.
- A detection occurs.
- **Delete files automatically and quarantine** is the primary action. Quarantined files are automatically deleted after 28 days.

Note

> If no quarantine policy is configured, the **Delete files automatically and quarantine** action does not occur even if it is configured as the primary action in the scan policies.

Restore tool

This diagram provides an overview of how the quarantine restore tool works.



\\test-host.com\quarantine

```
c:\122\artemis-verylow.exe
c:\34 - copy.txt
c:\34.txt
c:\6\artemis-verylow - copy.exe
c:\6\artemis-verylow.exe
c:\6\hashlist_avv\artemis-verylow.exe
c:\f.txt
c:\f4.txt
c:\f4.txt
c:\f4.txt
c:\r.txt
c:\temp\move-vs\restore\restoretest.txt
c:\users\administrator\desktop\eicar1.txt
c:\users\administrator\desktop\eicar2.txt
c:\users\administrator\desktop\eicar2.txt
c:\users\administrator\desktop\gti_samples\7\artemis-medium - copy.exe
c:\users\administrator\desktop\gti_samples\artemis-medium.exe
c:\users\administrator\desktop\gti_samples\artemis-verylow.exe
c:\users\administrator\desktop\other.txt
c:\wef999.txt
```

Host Name	Virus Name	DAT Version	Engine Version	File Size
EN-2k8ER2sp1p	Installation Check	6647.0000	5400.1158	9

The restore tool requires Java Runtime Environment (JRE) 1.8.

ⓘ **Important**

> Modify **quarantine_restore.cmd** by adding **-Djava.net.preferIPv4Stack=true** to the JVMARGS variable.

1. Connect to a quarantine share.
2. View the list of quarantined files.
3. View the VMs corresponding to the selected file.
4. Save a file to your local system.
5. Restore a specific file to one or more selected VMs.

Set permissions for quarantined folder

Setting permission for the quarantine folder allows you to specify who has access to the share.

Before you begin

Create the following:

- Quarantine folder
- Domain User Account — The account used by the SVM to quarantine files.
- Domain Local Security Group — This group has access to the Restore Tool.

Task

1. **Right-click the quarantine folder, then select Properties.**
2. **Select the Sharing tab, then click Advanced Sharing**
3. **In the Advanced Sharing dialog box, select Share this folder.**
4. **Click Permissions, select the default user name Everyone, click Remove, then click Apply.**

5. **Click Add to select an object type.**

   Note

   You can give permission only to administrators who need access to the quarantine folder.

   a. **In Select Users or Groups, enter your Domain User account in the object names dialog box, then click OK.**
   b. **Select the user name you created earlier, select Full Control, then click OK.**
6. **Click Add to select an object type.**
   a. **In Select Users or Groups, enter your Domain Local Security Group in the object names dialog box, then click OK.**
   b. **With this group selected, select Full Control, then click OK.**

Restore a file

Restoring a quarantined file allows you to save to your local system or to a specific VM.

Before you begin

- Update the DATs on the SVM and the system where you run the restore, when needed.
- Download **MOVE-AV-AL_RestoreTool.4.8.0.Zip** from the **Trellix** download site and extract the contents.
- Make sure that the TCP port 445 is open on the guest VM's firewall.

Task

1. **From the folder where you extracted MOVE-AV-AL_RestoreTool.4.8.0.Zip, start the quarantine restore tool.**

   ```
   quarantine_restore.cmd
   ```

   The **Connect** dialog box is automatically displayed.

2. **Enter the location and credentials of the quarantine share, then click OK.**

   Note

   Trellix MOVE AntiVirus supports only Windows share path for quarantine network share.

   If you need to connect to a different share, click **Connect**.
3. **From the list of quarantined files, select the file you want to restore.**

   Note

   If a file is listed multiple times, it has been quarantined multiple times and the contents of the file are different.

4. **Choose one of these options:**

   - Save the file to your local system.
     - Select **Save File**.

- Browse to the location, enter a file name, and click **OK**.

  The file is saved to the specified location. The quarantined file remains on the share.
- Restore the file to selected VMs.
  - Select the VMs where you want to restore the file, then click **Restore**.
  - Enter valid credentials to restore the file to all selected VMs.

  The same file can be restored to multiple VMs by multi-selecting the VM hosts before you click **Restore**. The same credentials must be valid for all selected VMs for this method to work. The file is restored to each selected VM. The quarantined file is removed from the share after it is successfully restored. When the restore is completed, the list of quarantined files and VMs are updated to reflect the current state.

Errors are logged on the **RestoreTool.log**.

Tagging in an NSX-T environment (Agentless)

When malware is detected on a VM where you configured NSX tagging, the affected VM is tagged with the NSX tag (**ANTI_VIRUS.VirusFound.threat=high**).

- In the **On Access Scan** policy, if the primary action is configured to **Delete files automatically** or **Delete files automatically and quarantine**, and when malware is detected and deleted on a client system, the NSX tagging and untagging happens at the same time. The malware detection details can be viewed in **Trellix ePO - On-prem** Orion logs.
- In the **On Access Scan** policy, if the primary action is configured to **Deny access to files** and when malware is detected and deleted on a client system, the client system is tagged with **ANTI_VIRUS.VirusFound.threat=high**. The tag is removed on the next successful completion of an on-demand scan.
- In the **On Access Scan** policy, if the primary action is configured to **Delete files automatically and quarantine** and the quarantine details are not configured, and when malware is detected and deleted on the client system, the client system is tagged with the NSX tag **ANTI_VIRUS.VirusFound.threat=high**. The tag is removed on the next successful completion of an on-demand scan.
- When you run on-demand scan and malware is detected on a VM, the NSX tag is removed for the VM only if the primary action is configured to **Delete files automatically** or **Delete files automatically and quarantine**.

Self-protection (Multi-platform)

The self-protection feature defends files, services, and registry keys on virtual machines. Use the **Endpoint Security** access protection rules for protecting the components of the SVM.

Trellix MOVE AntiVirus Client

The self-protection feature prevents malicious attacks on **Trellix MOVE AntiVirus** (Multi-platform) client components. This keeps your virus protection active and stable.

Protection type	Protection effects
File protection	Files inside the installed directory and driver file (mvagtdrv.sys) are protected from being deleted or renamed.
Registry protection	These registry keys, all subkeys, and all values under them are protected. • **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\mvagtdrv** • **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\mvagtsvc** • **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\EventLog\Application\MOVE AV client**
Service stop protection	The **mvagtsvc** service cannot be stopped.

The `IntegrityEnabled` configuration parameter controls the self-protection feature. By default, the parameter is set to 0x7, and all components of the feature are enabled.

The configuration parameter accepts values from 0–7, which is a decimal representation of a 3-bit binary value.

Decimal value	Binary value	Definition
0	000	Protection disabled
1	001	File protection
2	010	Registry protection
3	011	File and registry protection
4	100	Service protection
5	101	Service and file protection
6	110	Service and registry protection

Decimal value	Binary value	Definition
7	111	Service, registry, and file protection

For example, to enable file and registry protection, set the parameter to 3 (0b011) with this command:

```
mvadm config set IntegrityEnabled=3
```

To enable **file and service stop protection**, but not registry protection, set the parameter to 5 (0b101) with this command:

```
mvadm config set IntegrityEnabled=5
```

To disable the self-protection feature, set the parameter to 0 with this command:

```
mvadm config set IntegrityEnabled=0
```

When **Service stop protection** is enabled (by setting the highest bit to 1), the **mvagtsvc** service does not accept **stop** commands. File protection and registry protection require the agent driver be loaded, but service stop protection does not.

Trellix MOVE AntiVirus SVM

If you want to protect the components of the SVM, then you can use the **Access Protection** rules in **Endpoint Security**. Check the list of components below:

- **mvserver.exe**
- **C:\Program Files (x86)\McAfee\MOVE AV Server****
- **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\mvserver**
- **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\mvserver\Parameters**
- **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\mvserver\Parameters\ODS**

Events, responses, and Trellix MOVE AntiVirus

Configure Automatic Responses to respond to threat events.

The Threat Event Log is a log file of all threat events that **Trellix ePO - On-prem** receives from managed systems.

In **Trellix ePO - On-prem**, you can define which events are forwarded to the **Trellix ePO - On-prem** server. To display the complete list of events in **Trellix ePO - On-prem**, select **Menu** → **Configuration** → **Server Setting**, select **Event Filtering**, then click **Edit**.

Set up a Purge Threat Event Log server task to purge the Threat Event Log periodically.

For information about Automatic Responses and working with the Threat Event Log, see the **Trellix ePO - On-prem** documentation.

Analyzing your protection

The ongoing process of analyzing your system protection enables you to improve the protection and performance of your system.

Analyzing your protection helps you determine:

- Which threats you are facing
- What malware was used in the attack
- Where the threats are coming from
- Where and when the attacks occurred
- How often threats are found
- Which systems are being targeted
- How the attack affected the system

Protection analysis is also helps you:

- Create reports for IT and managers.
- Capture information used to create scripts and queries.

Dashboards and queries

Use **Trellix ePO - On-prem** queries to view events, run default queries, and create reports.

- View events in the Threat Event Log.
- Run default queries that show important client information.
- Create reports using data sent by the **Trellix Agent** to the **Trellix ePO - On-prem** database.

For information about how to run a query or report, see the product documentation for your version of **Trellix ePO - On-prem**.

Queries are questions that you ask **Trellix ePO - On-prem**, which returns answers as charts and tables. You can export or download queries, combine them into reports, and use most queries as dashboard monitors.

Reports enable you to package one or more queries into a single PDF document, for access outside of **Trellix ePO - On-prem**.

To create reports, your assigned permission set must include the ability to create and edit reports. You can restrict access to reports using groups and permission sets exactly as you restrict access to queries. Reports and queries can use the same groups, and because reports primarily consist of queries, this allows for consistent access control.

VMs running Agentless do not have the **Trellix Agent** installed. Only the SVM appears in the **Trellix ePO - On-prem** console, which means you don't see each VM. vShield Manager provides a report that validates the protection status of each VM.

Integrating TIE and Intelligent Sandbox

TIE provides context-aware adaptive security for your virtual environment. It quickly analyzes files and content from the SVM in your environment and makes informed security decisions.

These decisions are based on a file's security reputation and your own criteria set in the **Shared Cloud Solutions** policy of **Trellix MOVE AntiVirus**.

The Multi-platform deployment, with **TIE** and **Intelligent Sandbox** integration, becomes a multi-layered solution that involves various techniques to scan and detect the malware. It includes:

- Pattern matching
- Global reputation
- Program emulation
- Static analysis
- Dynamic analysis

All these layers are seamlessly integrated and provide a single point of control for easy configuration and management.

Threat Intelligence Exchange

Threat Intelligence Exchange uses the **McAfee Data Exchange Layer** framework to share file and threat information instantly across the entire network.

In the past, you sent an unknown file or certificate to **Trellix** for analysis, then updated the file information throughout your network later. **Threat Intelligence Exchange** enables file reputation to be controlled at a local level, your virtual environment. You decide which files can run and which are blocked, and the **Data Exchange Layer** shares the information immediately throughout your environment.

Threat Intelligence Exchange components

Threat Intelligence Exchange includes these components.

- A server that stores information about file and certificate reputations, then passes that information to other systems.
- **Data Exchange Layer** brokers that allow bidirectional communication between managed systems on a network.

These components are installed as **Trellix ePO - On-prem** extensions and add several new features and reports:

- **TIE** server extension
- **DXL** broker management
- **DXL** client for **Trellix ePO - On-prem**
- **DXL** client management

Intelligent Sandbox

If **Intelligent Sandbox** is present, the following process occurs.

1. When a file is sent for **TIE** reputation and **TIE** determines that it is an **Intelligent Sandbox** candidate. Then the file is submitted to **Intelligent Sandbox** for further analysis through **TIE** from SVM based on the settings in **Shared Cloud Solutions** policy under **Trellix MOVE AntiVirus**.
2. **Intelligent Sandbox** analyses file and sends file reputation results to the **TIE** server using the **Data Exchange Layer**. The **TIE** server also updates the database and sends the updated reputation information to the SVM.

The **Intelligent Sandbox** solution primarily consists of the **Intelligent Sandbox** Appliance and the pre-installed software. The **Intelligent Sandbox** Appliance is available in two models. The standard model is the ATD-3000. The high-end model is the ATD-6000.

For installing and setting up **Intelligent Sandbox**, see the installation guide for your version of **Intelligent Sandbox**.

Intelligent Sandbox components

Intelligent Sandbox integrates its native capabilities with **Trellix MOVE AntiVirus** to provide a multilayered defense mechanism against malware.

These features and components of **Intelligent Sandbox** integrate with **Trellix MOVE AntiVirus** for better malware detection:

- A local block list to quickly detect known malware.
- **Trellix GTI** for cloud lookups to detect malware that has already been identified by organizations throughout the globe.
- Embedded McAfee Gateway Anti-Malware Engine in for emulation capability.
- Embedded McAfee Anti-Malware Engine embedded in for signature-based detection.
- A virtual sandbox environment for dynamic file analysis.

Scenarios for using Threat Intelligence Exchange

- **Immediately block a file** — **Threat Intelligence Exchange** alerts the network administrator of an unknown file in the environment. Instead of sending the file information to **Trellix** for analysis, **Trellix MOVE AntiVirus** blocks the file immediately. The administrator can then use **Threat Intelligence Exchange** to learn whether the file is a threat and how many systems ran the file.
- **Allow a custom file to run** — A company routinely uses a file whose default reputation is suspicious or malicious, for example a custom file created for the company. This file can override the reputation of a file on **TIE** server so that it is allowed to run in the environment.
- **Import known reputations** — A company has several files that are trusted and used regularly, and other files that are not allowed. Because the reputations are already known and set, the administrator can import a list of files and their reputations directly into the **Threat Intelligence Exchange** database. Those reputations are used immediately with no further action needed.
- **See additional information about a file** — **Threat Intelligence Exchange** notifies the network administrator of an unknown file. The administrator can see several details about the file, such as the file's parent process, company, hash information, and the systems that ran the file. The administrator can also see more detailed information about the file with VirusTotal, a free online service for scanning viruses, malware, and URLs.

Determine a file or certificate's reputation

File and certificate reputation is determined when a file tries to run on a managed system.

These steps occur in determining a file or certificate's reputation.

1. A user or system tries to run a file.
2. **Trellix MOVE AntiVirus** compares and inspects the file with local cache and can't determine its validity and reputation.

3. The client looks for the reputation in global cache in the SVM and can't find the reputation, then sends the file hashes to the SVM for **TIE** lookup based on the **Shared Cloud Solutions** policy assigned to the system.
4. The SVM checks the reputation cache for the file hash. If the file hash is found, the SVM gets the reputation data from the SVM cache and sends the reputation to the client and action is taken.
5. If the file hash is not found in the SVM cache and **TIE** server does not have the reputation:
    - (**Intelligent Sandbox** is present) If the policy on the endpoint determines that the file has to be sent to **Intelligent Sandbox**, the **TIE** server sends the file for further analysis. To send the file to **Intelligent Sandbox**, these requirements must meet:
        - **Advanced Threat Defense (ATD)** option is configured in the **Shared Cloud Solutions** policy on the **Trellix ePO - On-prem** server.
        - Size of the file is less than 10 MB.
    - The TIE server returns the file hash's reputation to the SVM once the data is received from **Intelligent Sandbox** after analyzing the file.
6. **Trellix MOVE AntiVirus** responds based on the **Shared Cloud Solutions** policy assigned to the system that is running the file.
7. The SVM sends threat details as threat events to **Trellix ePO - On-prem**.

Determine a reputation with TIE 2.0.0

When the SVM sends a signed file for certificate lookup and this certificate has a file that has administrator overridden file reputation, the file hash is sent for file reputation lookup again. Then the overridden file reputation is considered for the file, ignoring certificate reputation value.

For example, let us consider a scenario where:

- The file has a certificate value as **Known trusted**
- The file reputation of any files associated with the same certificate is overridden by the administrator to **Known malicious**

With these assumptions, when an SVM sends a file for TIE lookup, TIE notifies that it has a file reputation overridden for the certificate. Then the SVM sends for file reputation again and responds based on the file reputation.

Monitoring activity in your environment

An important step in a protection strategy is using tools to monitor the malware events that occur on your systems.

Monitoring activity with Trellix ePO - On-prem

Use **Trellix ePO - On-prem** to monitor activity on your managed systems and determine what to do when issues occur.

Dashboards are collections of monitors that track activity in your **Trellix ePO - On-prem** environment.

Trellix MOVE AntiVirus provides predefined dashboards and monitors. Depending on your permissions, you can use them as is, modify them to add or remove monitors, or create custom dashboards.

Trellix MOVE AntiVirus dashboard

The **Trellix MOVE AntiVirus** dashboard is added to your **Trellix ePO - On-prem** server when you install the software.

The dashboard displays a collection of monitors based on the results of the default **Trellix MOVE AntiVirus** software queries.

The default monitors that appear on the **Trellix MOVE AntiVirus** dashboard are:

- **SVM Load: Number of Connected Endpoints** — Displays the number of managed endpoints with load category of the SVM.
    - **Capacity Full** — Indicates that the SVM limit is reached when the number of endpoints is equal to what can be assigned.
    - **Capacity Above Threshold** — Appears when capacity of an SVM is more than its threshold value.
    - **Capacity Below Threshold** — Appears when capacity of an SVM is less than its threshold value.
- **SVM with Higher Average Scan Time in last 7 days** — Specifies the top 10 SVMs, which have reached average scan time threshold and they are in this state for the longest time in the past 7 days.

See the chapter on dashboards in the ***Trellix ePO - On-prem*** *Product Guide* for information about managing dashboards.

Check visibility and health details of the SVM

You can view and check the product properties of **Trellix MOVE AntiVirus** and the product component SVM using **Trellix ePO - On-prem**.

Task

1. **Log on to Trellix ePO - On-prem as an administrator.**
2. **Select Menu → Systems → System Tree → Systems tab.**
3. **Click an SVM system to open the System Information page.**
4. **Click Product tab and select the product as MOVE AntiVirus.**

Results

You can now see the product properties, which can be used to determine the health details of the SVM.

Check predefined queries

Run the predefined queries to generate reports based on **Trellix MOVE AntiVirus** components.

Task

1. **Log on to Trellix ePO - On-prem as an administrator.**
2. **Select Menu → Reporting → Queries & Reports.**
3. **From the McAfee Groups pane, select MOVE AntiVirus 4.10.x to display the queries for the selected group.**
4. **From the Queries list, select a query, then click Run.**
5. **On the query results page, click any item in the results to drill down further.**
6. **Click Close when finished.**

Predefined Multi-platform queries

The **Trellix MOVE AntiVirus** (Multi-platform) deployment option adds several queries to your **Trellix ePO - On-prem** environment.

Multi-platform queries

Query	Description
Client Protection Status	Displays the status of all **Trellix MOVE AntiVirus** clients managed by the server.
Clients connected with a given SVM and SVM Manager	Displays the data of the clients and the associated SVMs and SVM Manager.
Clients connected with a given SVM	Displays the details of the client and the SVM that is assigned to it.
DAT version	Displays the DAT version of all **Trellix MOVE AntiVirus** clients that are managed by the server.
Summary of Threats Detected in the Last 24 Hours	Displays threats detected in the last 24 hours.
Threats Detected in the Last 24 Hours	Displays the number of threats detected in the last 24 hours by hour.

Query	Description
Top 10 Computers with the Most Detections	Displays the top 10 computers with the most threat detections in the last three months.
Top 10 Detected Threats	Displays the top 10 detected threats in the last three months.
Top 10 Users with the Most Detections	Displays the top 10 users with the most threat detections in the last three months.
TIE/ATD Metrics for each MP SVM	Lists all **TIE** or **Intelligent Sandbox** related metrics such as Total File reputation requests to **TIE**, Total Certificate reputation requests to **TIE**, and Total number of **Intelligent Sandbox** candidates for each **Trellix MOVE AntiVirus** SVM.

Client queries and events

Query	Description
MP Connectivity Details	Displays the connectivity status details between an SVM and SVM manager, and a client and SVM Manager such as **Success**, **Failed**, and **Unassigned**. **Note:** Before running this report, make sure that you run these client tasks: • **Check SVM Assignment** • **Check SVM Connectivity** • **Check SVM Manager Connectivity**

ODS Client queries and events

Query	Description
MOVE AntiVirus: MOVE MP ODS Summary	Displays a summary of On-Demand scan for all the clients.

Query	Description
	The query categorizes all the clients based on the ODS states. Possible ODS states are: • **Scan Not Run** • **Scan Running** • **Scan Finished** • **Scan Terminated**

SVM queries and events

Query	Description
SVM Load: Number of Connected Endpoints	Categorizes the SVMs into **Capacity full**, **Capacity Above Threshold**, and **Capacity Below Threshold** based on the number of connected endpoints.
SVM with Higher Average Scan Time in last 7 days	Specifies the top 10 SVMs, which have reached the average scan time threshold and are in this state for the longest time in the past 7 days.
SVM with SVM Manager details	Lists all SVMs with SVM Manager details.
SVM: Average Scan Time Events	Lists the SVM Average Scan Time, SVM Average Scan Time Threshold, and SVM Average Scan Time Sampling Interval details. This report is generated from SVM average Scan Time Threshold hit and SVM Average Scan Time Threshold Restored events. The average scan time threshold for each SVM can be modified in the **Alert me** in the SVM Settings policy.
SVM Capacity Events	Lists the SVM Capacity Full, SVM Capacity Restored, and SVM Capacity Threshold hit details. This report is generated from SVM Capacity Threshold hit, SVM Capacity Full, and SVM Capacity Threshold Restored event. The threshold limit of client connections for each SVM can be modified in the **Alert me** option in the SVM Settings policy.

Query	Description
Top 10 Scanned File Extensions for each SVM	Lists the top 10 file extensions scanned by the SVM.
Top 10 Scanned Files for each SVM	Lists the top 10 files scanned by the SVM.
Top 10 Scanned Processes for each SVM	Lists the top 10 processes scanned by the SVM.
Top 10 Scanned Virtual Machines for each SVM	Lists the top 10 virtual machines that are sending maximum scan and checksum requests.
MP Error Codes Data	Displays the error code details that occurred while managing **Trellix MOVE AntiVirus**

SVM Manager queries and events

Query	Description
SVM Assignment Failed	Specifies the details and reasons of SVM assignment by the SVM Manager. This event is reported on the **Trellix ePO - On-prem** server. • SVM_MANAGER_SVM_ASSIGNMENT_FAILED — This event is reported when an SVM assignment request is sent from a client to the SVM Manager and it is unable to complete the client request, because no registered SVM is reported with full capacity.
SVM Capacity Events	Specifies the maximum number of endpoints with the number of endpoints connected. These events are reported on the **Trellix ePO - On-prem** server. • SVM_MANAGER_SVM_THRESHOLD_CAPACITY_HIT — This event is reported when an SVM assignment request is sent from a client to the SVM Manager and cumulative capacity of all SVMs eligible to serve that client has reached the threshold value,

Query	Description
	which is set in the advanced options of the SVM Manager policy. • **SVM_MANAGER_SVM_CAPACITY_FULL** — This event is reported when an SVM assignment request is sent from a client to the SVM Manager and all SVM eligible to serve that client have reached their full capacity.
SVM Registration Events	Displays the SVM registration events raised by the SVM Manager. These events are reported on the **Trellix ePO - On-prem** server. • **SVM_MANAGER_SVM_REGISTER** — This event is reported when an SVM is registered with SVM Manager. • **SVM_MANAGER_SVM_UNREGISTER** — This event is reported when an SVM is unregistered from the SVM Manager because of issues like SVM shutdown, network interruptions.
SVM_MANAGER_STARTED	This event is reported when the SVM Manager starts.
SVM_MANAGER_STOPPED	This event is reported when the SVM Manager stops.

You can add these queries to dashboards to more efficiently track your environment by displaying several queries at once.

The queries are constantly refreshed, or you can run them at a specified frequency. You can add them to reports that are run on specific schedules and export them as PDF files or email messages.

Note

The **Trellix ePO - On-prem** Threat Event Log contains information about detections, scan failure, and on-demand scan events.

SVM Manager information

A shell script, `msmclient.sh`, is available with SVM Manager and is used to retrieve the SVM details. The script is available at **/opt/McAfee/movesvamanger**.

For these commands to work and retrieve the results, the SVM Manager application must be running.

Run these commands with root rights from the `/opt/McAfee/movesvamanager` directory:

- `sudo ./msmclient.sh osscount` — Displays the number of SVMs attached to the SVM Manager.
- `sudo ./msmclient.sh ossinfo` — Displays some basic information about the SVMs attached to the SVM Manager.
- `sudo ./msmclient.sh ossdetails` — Displays some advanced information about the SVM: current SVM load, SVM GUID, and last heartbeat time.

Predefined Agentless queries

You can use predefined queries as is, or create queries from events and properties stored in the **Trellix ePO - On-prem** database.

To create custom queries, your assigned permission set must include the ability to create and edit private queries.

The Agentless deployment option provides these predefined queries:

Query	Definition
Clients connected with a given SVM (AL)	Displays the data of Agentless clients and the associated SVMs.
DAT Version	Specifies the DAT version available on the VMs. This query is available only when the vSphere Connector is installed.
Detection Response Summary	Displays the number of threats on which an action such as **Modify**, **Access denied**, or **Deleted** is taken versus the number of threats on which no action was taken, in the last three months.
Licensing Information	Displays the number of VMs that are being managed by the licensed SVM. This report is generated from **MOVE AntiVirus: Compute licensing information** server task.
On-Demand Scan Events Summary	Displays a summary of the on-demand scan events for the last 3 months.
Service Events Summary	Displays a summary of the service events for the last 3 months.
Summary of Threats Detected in the Last 24 Hours	Displays a summary of the threats detected in the last 24 hours.

Query	Definition
Summary of Threats Detected in the Last 7 Days	Displays a summary of the threats detected in the last 7 days.
Threat Count by Severity	Specifies the slice count, which is the number of Agentless events. Slice indicates different event severities for the last months.
Threat Names Detected per Week	Displays the name and number of different threats detected every week for the last 3 months.
Threats Detected in the Last 24 Hours	Specifies the number of threats detected in the last 24 hours.
Threats detected in the Last 7 Days	Specifies the number of threats detected in the last 7 days.
Threats Detected Over the Previous 2 Quarters	Specifies the number of threats detected for the last 2 quarters.
Threats Detected per Week	Displays the number of threats detected every week for the last 3 months.
Top 10 Detected Threats	Displays the top 10 threats detected in the last 3 months.
Top 10 Scanned File Extensions for each SVM	Lists the top 10 file extensions scanned by the SVM.
Top 10 Scanned Files for each SVM	Lists the top 10 files scanned by the SVM.
Top 10 Scanned Virtual Machines for each SVM	Lists the top 10 virtual machines that are sending maximum scan and checksum requests.
Top 10 Threats per Threat Category	Displays the top 10 threats in a threat category for the last three months. The threats are grouped by threat category and threat name.

Query	Definition
Top 10 Virtual Machines with the Most Detections	Displays the top 10 virtual machines with the most threat detections in the last 3 months.
Unwanted Programs Detected in the Last 24 Hours	Displays the number of potentially unwanted program events for the last 24 hours.
Unwanted Programs Detected in the Last 7 Days	Displays the number of potentially unwanted program events for the last 7 days.
Virtual Machines with Threats Detected per Week	Displays the number of virtual machines detected with threats per week for the last 3 months.

Trellix MOVE AntiVirus server tasks

MOVE AntiVirus - generate certificates (Multi-platform)

If there is a connectivity issue with the SVM Manager, you must generate the certificates for **Trellix MOVE AntiVirus**, so that the **Trellix MOVE AntiVirus** SVM and SVM Manager communicate and authenticate each other properly. For details, see the ***Trellix MOVE AntiVirus*** *4.10.x Installation Guide*

MOVE AntiVirus - compute licensing information (Agentless)

From **Menu** → **Automation** → **Server Tasks**, you can run **MOVE AntiVirus: Compute licensing information** server task to list the number of VMs being managed by the licensed SVM. You can find the output of this server task from **MOVE AntiVirus: Licensing information** Queries & Reports.

Troubleshooting

Use this information to resolve problems while running **Trellix MOVE AntiVirus** and using its deployment modes.

Best practices for using Trellix MOVE AntiVirus

Here are some best practices for deploying and managing the **Trellix MOVE AntiVirus** product.

Best practices for Multi-platform

Here are some best practices for deploying and managing the **Trellix MOVE AntiVirus** product (Multi-platform).

Best practices for creating multiple client systems using primary image

To create multiple client systems in your environment, create a primary image of a VM where client is installed on it and reconfigured the settings, as needed. So that you do not need to repeat these actions on every client system that you create.

1. Deploy the **Trellix MOVE AntiVirus** client to the managed VM, which you want to make a primary image.
2. In **Trellix ePO - On-prem**, add required exclusions for both on-access scan and on-demand scan policies and apply them to the primary image.
    - Path exclusions
    - Process exclusions
    - Publisher exclusions
3. Run the on-demand scan or Targeted on-demand scan on the primary image to build up the cache. Building up the cache on the primary image improves the performance of the VM when you clone the virtual machines.
4. In the primary image, under **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\mvagtdrv\Parameters**, delete the registry key for **ODSUniqueId** and **ServerAddress1**.
5. In the primary image, under **HKEY_LOCAL_MACHINE\SOFTWARE\McAfee\Agent\FirewallRules\Identifier**, delete the agent registry key **GUID**.
6. Shut down the primary image and clone the virtual machines from the primary image. When cloned virtual machines are turned on, new agent **GUID** values are automatically generated. The virtual machines are now managed by the **Trellix ePO - On-prem** server.

Note

It is recommended to update AMCore Content Package (V3 DAT) on daily basis during non peak hours.

Note

It is recommended to keep SVM on the same host where most of the clients are located, it improves the performance of the SVM.

Best practices for Agentless

Here are some best practices for deploying and managing the **Trellix MOVE AntiVirus** product (Agentless).

Best practices for VDI environment

While provisioning many VMs, the VDI might stop responding due to lack of client cache. The flushing of client cache while loading and unloading the filter driver is a VMware limitation.

When there is a significant workload running on the client systems, you might notice issues like the VM getting hung during its boot, latency during file scanning, and many. To prevent such issues, it is recommended to upgrade the SVM configuration with this configuration:

Memory	4-GB RAM or higher
CPU	4 vCPU
Maximum worker threads	512 (You can log on to the SVM and change this number) • Log on to the SVM as a root user. • Open **/opt/McAfee/move/etc/svaconfig.xml**. • Under **<EPSEC>**, set the value for **workerthreads** to 512. Default value is 256. • Save the changes. • Restart the MOVE service.

Error codes

Here are steps to troubleshoot some of the errors that you might see while deploying and managing the **Trellix MOVE AntiVirus** product. You might see these errors on the **Trellix ePO - On-prem** pages or in the log files.

Product area - Trellix MOVE AntiVirus extension

You might see these errors on the **Trellix ePO - On-prem** pages or in the log files while deploying and managing the **Trellix MOVE AntiVirus** product using **Trellix MOVE AntiVirus** extension.

MOVE_ERROR_30001

Error string: [MOVE_ERROR_30001] Critical error. Downloading **Trellix ePO - On-prem** init files failed.

Log: **Orion.log** on the **Trellix ePO - On-prem** system

Cause:

For Static IP Pool

The provided IP Pool details might be wrong.

For DHCP

The DNS might not ping FQDN or host name of the **Trellix ePO - On-prem** server.

Workaround:

For Static IP Pool

1. FQDN is resolved from **Trellix ePO - On-prem** and the client and vice versa.
2. Verify that the provided IP Pool details are correct.

For DHCP

1. FQDN is resolved from **Trellix ePO - On-prem** and the client and vice versa.
2. Verify that the DNS that you got through DHCP can ping FQDN or host name of the **Trellix ePO - On-prem** server.

MOVE_ERROR_30002

Error string: [MOVE_ERROR_30002] Compatibility checking failed

Log: **Orion.log** on the **Trellix ePO - On-prem** system

Cause: MOVEALCompatMatrix.xml might not be compatible with the versions of vCener, ESXi, vShield Manager, vShield Endpoint, and VM Tools.

Workaround: This error can be ignored because it does not impact while deploying and managing the **Trellix MOVE AntiVirus** product.

MOVE_ERROR_30003

Error string: [MOVE_ERROR_30003] For some VM's either VM Tools is not running or VMs are not part of the AD, hence, vShield driver installation fails on them.

Log: **Orion.log** on the **Trellix ePO - On-prem** system

Cause: VM Tools are not running on some of the VMs or the VMs are not part of the Active Directory server.

Workaround:

1. Verify that VMware Tools are running properly on all VMs.
2. Verify that the VMs are part of the Active Directory server.
3. Verify that you configured and registered all LDAP servers, which are managing the client systems to be protected.

MOVE_ERROR_30004

Error string: [MOVE_ERROR_30004] All VMs in the Hypervisor are not part of the AD, vShield driver installation fails on them.

Log: **Orion.log** on the **Trellix ePO - On-prem** system

Cause: The VMs are not part of the Active Directory server.

Workaround:

1. Verify that the VMs are part of the Active Directory server.
2. Verify that you configured and registered all LDAP servers, which are managing the client systems to be protected.

MOVE_ERROR_30005

Error string: [MOVE_ERROR_30005] VM Tools in some VMs are not running, vShield driver installation might fail on them.

Log: **Orion.log** on the **Trellix ePO - On-prem** system

Cause: VMware Tools are not running on some of the VMs.

Workaround: 1. Verify that the VMs are part of the Active Directory server. 2. Verify that you have configured and registered all LDAP servers, which are managing the client systems to be protected.

MOVE_ERROR_30007

Error string: [MOVE_ERROR_30007] Rest API call failed with exception.
Log: **Orion.log** on the **Trellix ePO - On-prem** system
Cause: **For NSX environment**: NSX Manager details are not configured properly in **Trellix ePO - On-prem**.
Workaround: **For NSX environment** 1. Verify that you configured the NSX Manager details properly in the **MOVE AntiVirus** Deployment wizard in **Trellix ePO - On-prem**. 2. From **Trellix ePO - On-prem** system, open SQL Server and verify the details in the **DC_AL_NSX_MANAGER_DETAILS** table.

MOVE_ERROR_30008

Error string: [MOVE_ERROR_30008] Getting vsm heartbeat details: <APPLIANCE_URL> failed using : <CLIENT_DETAILS>
Log: **Orion.log** on the **Trellix ePO - On-prem** system
Cause: The vShield Manager might not be running.
Workaround: Verify that the vShield Manager is up and running.

MOVE_ERROR_30009

Error string: [MOVE_ERROR_30009] Error occurred while executing service setup task. Continuing with next setup

Log: **Orion.log** on the **Trellix ePO - On-prem** system

Cause: VMs might not be synchronized properly from the vCenter account in **Trellix ePO - On-prem**.

Workaround:
Synchronize the vCeter account on the **Registered Cloud Account** page in **Trellix ePO - On-prem**.

MOVE_ERROR_30010

Error string: [MOVE_ERROR_30010] NSX-T Manager is already registered with different **Trellix ePO - On-prem.**

Log: **Orion.log** on the **Trellix ePO - On-prem** system

Cause: NSX-T Manager is registered with another **Trellix ePO - On-prem**.

Workaround:

1. Verify that the vCenter account is registered with another **Trellix ePO - On-prem**.
2. Verify that the NSX-T Manager is registered with another **Trellix ePO - On-prem** in the **MOVE AntiVirus** Deployment wizard.
3. Unregister the MOVE service from the **Service Registration** page in the MOVE AntiVirus Deployment wizard in **Trellix ePO - On-prem.**

MOVE_ERROR_30011

Error string: [MOVE_ERROR_30011] Error occurred while communicating with NSX-T Manager.

Log: **Orion.log** on the **Trellix ePO - On-prem** system

Cause: NSX-T certificate details are not valid.

Workaround:

1. Reconfigure and validate the NSX-T Manager details about the **Edit NSX Manager Details** page in the MOVE AntiVirus Deployment wizard.
2. Verify that the validation is successful.

MOVE_ERROR_30012

Error string: [MOVE_ERROR_30012] MOVE Service can't be unregistered or upgraded because it is used in NSX-T Manager Security Policy.

Log: **Orion.log** on the **Trellix ePO - On-prem** system

Cause: The Security Policy is being used in NSX-T Manager.

Workaround:

1. On the NSX-T console homepage, click **Security** → **Endpoint Protection Rules** → **Rules**.
2. Delete the Rules assigned for any policies.
3. Delete the Service Profiles created for any policies.
4. Navigate to the **System** → **Service Deployments** → **Deployments** and delete **Trellix MOVE** Service deployment from the **Service Deployments** page.

MOVE_ERROR_30013

Error string: [MOVE_ERROR_30013] MOVE Service can't be unregistered because it is deployed on clusters.

Log: **Orion.log** on the **Trellix ePO - On-prem** system

Cause: SVM is deployed on one or more clusters.

Workaround:

1. On the NSX-T console homepage, click **Security** → **Endpoint Protection Rules** → **Rules**.
2. Delete the Rules assigned for any policies.
3. Delete the Service Profiles created for any policies.

4. Navigate to the **System** → **Service Deployments** → **Deployments** and delete **Trellix MOVE** service deployment from the **Service Deployments** page.

Product area - Trellix MOVE AntiVirus client (Multi-platform)

You might see these errors on the Queries & Reports (**MOVE AntiVirus: Error Code Details** or **MOVE AntiVirus: Multi-Platform Connectivity Status**) in **Trellix ePO - On-prem** or in the log files.

Error code: 12002

Error reason string: Client communication with SVM Manager failed

Log: **mvagent.log** on the client

Cause: Client communication with SVM Manager has timed out.

Workaround:

1. Verify that the SVM Manager service is up and running.
2. Verify that the SVM Manager IP details are configured in the **Options** policy in **Trellix ePO - On-prem**.
3. Verify that the **Options** policy is assigned to the client.

Error code: 12002

Log: Queries & Reports (**MP Connectivity Details**) on **Trellix ePO - On-prem**

Cause: Client communication with SVM Manager has timed out.

Workaround:

1. Verify that the SVM Manager service is up and running.
2. Verify that the SVM Manager IP details are configured in the **Options** policy in **Trellix ePO - On-prem**.
3. Verify that the **Options** policy is assigned to the client.

Error code: 12029

Error reason string: Client communication with SVM Manager failed

Log: mvagent.log on the client

Cause: The attempt to connect client to SVM Manager is failed.

Workaround:

1. Verify that the SVM Manager service is up and running.
2. Verify that the SVM Manager IP details are configured in the **Options** policy in **Trellix ePO - On-prem**.
3. Verify that the **Options** policy is assigned to the client.

Error code: 12029

Log: Queries & Reports (**MP Connectivity Details**) on **Trellix ePO - On-prem**

Cause: The attempt to connect client to SVM Manager is failed.

Workaround:

1. Verify that the SVM Manager service is up and running.
2. Verify that the SVM Manager IP details are configured in the **Options** policy in **Trellix ePO - On-prem**.
3. Verify that the **Options** policy is assigned to the client.

Error code: 4001

Log: Queries & Reports (**MP Connectivity Details**) on **Trellix ePO - On-prem**

Cause: SVM is not available with SVM Manager to assign it to the client.

Workaround:

1. Make sure that the SVM Manager has an SVM, whose capacity is not full.
2. If all SVMs capacity is full, deploy the **Trellix MOVE AntiVirus** SVM to a virtual machine.

3. Verify that the SVM Manager IP details are configured in the **Options** policy in **Trellix ePO - On-prem**.
4. Assign the **Options** policy to the newly deployed SVM system.

Product area - Trellix MOVE AntiVirus SVM (Multi-platform)

You might see these errors on the Queries & Reports (**MOVE AntiVirus: Error Code Details** or **MOVE AntiVirus: Multi-Platform Connectivity Status**) in **Trellix ePO - On-prem** or in the log files.

Error code: 15

Error string: Failed to send request to the TIE server

Log: **mvserver.log** on the SVM

Cause: McAfee DXL client and DXL broker might not be compatible.

Workaround:
Verify that the McAfee DXL client and DXL broker version is compatible.

Error code: 16

Error string: Failed to send request to the TIE server

Log: **mvserver.log** on the SVM

Cause: McAfee DXL client service might be stopped / MOVE service might not be recognized the McAfee DXL client.

Workaround:

1. Log on to the **Trellix MOVE AntiVirus** SVM system.
2. Open **Task Manager** and verify that the McAfee DXL client service appears.
3. From system tray, click M and select **About...** to open **Trellix About...** window.
4. Under **McAfee Data Exchange Layer**, verify that the **DXL Connected Status** is **Connected**.
5. Restart the MOVE service.

Error code: 201

Error string: Failed to send request to the TIE server

Log: **mvserver.log** on the SVM

Cause: DXL fabric might not be connected.

Workaround:

1. In the System Tree, click the TIE server name, then click **Products**. Verify that the following components are listed with the corresponding version for the installation process.
   - DXL Broker
   - DXL Client
   - Threat Intelligence Exchange Server
2. In the System Tree, verify that the TIESERVER and DXLBROKER tags were applied to the system.
3. Select **Menu** → **Configuration** → **Server Settings**, click **DXL ePO Client**, then verify that the **Connection State** is **Connected**.
4. In the System Tree, select the **TIE** server, then from the **Actions** menu, select **DXL** | **Lookup in DXL**.
5. Verify that the **Connection State** is **Connected**.
6. Log on to the **Trellix MOVE AntiVirus** SVM system.
7. From system tray, click M and select **About...** to open **Trellix About...** window.
8. Under **McAfee Data Exchange Layer**, verify that the **DXL Connected Status** is **Connected**.

Error code: 202

Error string: Failed to send request to the TIE server

Log: **mvserver.log** on the SVM

Cause: DXL fabric might be trying to connect continuously.

Workaround:

1. In the System Tree, click the TIE server name, then click **Products**. Verify that the following components are listed with the corresponding version for the installation process.
   - DXL Broker

- DXL Client
- Threat Intelligence Exchange Server

2. In the System Tree, verify that the TIESERVER and DXLBROKER tags were applied to the system.
3. Select **Menu** → **Configuration** → **Server Settings**, click **DXL ePO Client**, then verify that the **Connection State** is **Connected**.
4. In the System Tree, select the **TIE** server, then from the **Actions** menu, select **DXL** | **Lookup in DXL**.
5. Verify that the **Connection State** is **Connected.**
6. Log on to the **Trellix MOVE AntiVirus** SVM system.
7. From system tray, click and select **About...** to open **Trellix About...** window.
8. Under **McAfee Data Exchange Layer**, verify that the **DXL Connected Status** is **Connected**.

Error code: 11

Error string: Failed to send request to the TIE server

Log: **mvserver.log** on the SVM

Cause: TIE server might not be running.

Workaround:

1. Log on to the TIE server as a root user.
2. Run this command: `service tieserver status`
3. Verify that the **PostgreSQL for McAfe TIE Server and ties server** and **McAfee TIE Server** status appears running.
4. If these are not running, perform these actions.
   a. Run this command: `service tieserver start`
   b. Verify that the **PostgreSQL for McAfe TIE Server and ties server** and **McAfee TIE Server** started running.

Error code: 1

Error string: SVM is shutting down

Log: Queries & Reports (**MP Connectivity Details**) on **Trellix ePO - On-prem**.

Cause: **MOVE AV Server** service might not be running or SVM might not be functional.

Workaround:

1. Make sure that the **Trellix MOVE AntiVirus** SVM system is turned on.
2. Log on to the **Trellix MOVE AntiVirus** SVM system.
3. Make sure that the **MOVE AV Server** service is running.

Error code: 2

Error string: SVM is max client threshold reached

Log: Queries & Reports (**MP Connectivity Details**) on **Trellix ePO - On-prem**.

Cause: The number of clients connected to the SVM is more than its threshold value.

Workaround:

1. Log on to the **Trellix ePO - On-prem** server as an administrator.
2. Deploy the **Trellix MOVE AntiVirus** SVM to your virtual machine(s).

Error code: 3

Error string: SVM to client heartbeat break

Log: Queries & Reports (**MP Connectivity Details**) on **Trellix ePO - On-prem**.

Cause: SVM might be turned off or SVM might be over loaded or SVM and client version is not compatible.

Workaround:

1. Make sure that the **Trellix MOVE AntiVirus** SVM system is turned on.
2. Verify that the SVM is not over loaded.
3. Verify that the SVM and client version is compatible.

Error code: 4

Error string: Client to SVM connection failed

Log: Queries & Reports (**MP Connectivity Details**) on **Trellix ePO - On-prem**.

Cause: SVM might be turned on or **MOVE AV Server** service might not be running.

Workaround:

1. Verify that the **Trellix MOVE AntiVirus** SVM is running.
2. Make sure that the **MOVE AV Server** service is running.

Error code: 12002

Error string: SVM Registration with SVM Manager failed

Log: **mvserver.log** on SVM and Queries & Reports (**MP Error Code Details**) on **Trellix ePO - On-prem**.

Cause: SVM Registration with SVM Manager request has timed out.

Workaround:

1. Verify that the SVM Manager service is up and running.
2. Verify that the SVM Manager IP details are configured in the **Options** policy in **Trellix ePO - On-prem**.
3. Verify that the **Options** policy is assigned to the SVM.

Error code: 12002

Error string: Failed to submit file to **Intelligent Sandbox** server

Log: Queries & Reports (**MP Error Code Details**) on **Trellix ePO - On-prem**.

Cause: **Intelligent Sandbox** might not be integrated properly.

Workaround:

1. Log on to the **Trellix ePO - On-prem** as an administrator.
2. Select **Menu** → **Policy** → **Policy Catalog**, then select **Threat Intelligence Exchange Server Management** from the **Product** list.
3. Click the TIE Server Settings policy that is applied to the SVM.
4. Under **Advanced Threat Defense** tab, make sure that **Username**, **Password**, and **Server** details are configured.
5. On the **Trellix MOVE AntiVirus** SVM system, run this command: `mvadm stats`
6. Verify that **Total ATD candidates** and **Total ATD successful submissions** values appear.

Error code: 12002

Error string: Unable to register OSS with broker with err: -1, get last error: 12002

Log: **mvserver.log** on the SVM

Cause: On the SVM system, proxy setting might not be configured correctly for the IP address used for communication between SVM and SVM Manager.
or
There might be multiple NICs having different IP/Subnet address configured for the SVM and proxy setting is not configured correctly for these IP addresses.

Method 1:

1. Log on to the **Trellix MOVE AntiVirus** SVM system.
2. Run this command to confirm proxy setting is used by the SVM:
   `netsh winhttp show proxy`
3. Change the proxy setting to use the correct IP address that is used for communication between the SVM and SVM Manager.

Method 2:

1. Log on to the **Trellix MOVE AntiVirus** SVM system.
2. Run this command to confirm proxy setting is used by the SVM:
   `netsh winhttp show proxy`
3. If multiple NICs are used by the SVM, perform these actions:
   a. Disable the NICs that are not used for communication between the SVM and SVM Manager.
   b. Run this command to reset the proxy setting:

```
netsh winhttp reset proxy
```

Error code: 12029

Error string: Failed to submit file to **Intelligent Sandbox** server

Log: Queries & Reports (**MP Error Code Details**) on **Trellix ePO - On-prem**.

Cause: **Intelligent Sandbox** might not be integrated properly.

Workaround:

1. Log on to the **Trellix ePO - On-prem** as an administrator.
2. Select **Menu** → **Policy** → **Policy Catalog**, then select **McAfee Threat Intelligence Exchange Server Management** from the **Product** list.
3. Click the TIE Server Settings policy that is applied to the SVM.
4. Under **Advanced Threat Defense** tab, make sure that **Username**, **Password**, and **Server** details are configured.
5. On the **Trellix MOVE AntiVirus** SVM system, run this command: `mvadm stats`
6. Verify that **Total ATD candidates** and **Total ATD successful submissions** values appear.

Error code: 12029

Error string: SVM Registration with SVM Manager failed

Log: **mvserver.log** on the SVM and Queries & Reports (**MP Error Code Details**) on **Trellix ePO - On-prem**.

Cause: The attempt to connect SVM to SVM Manager is failed.

Workaround:

1. Verify that the SVM Manager service is up and running.
2. Verify that the SVM Manager IP details are configured in the **Options** policy in **Trellix ePO - On-prem**.
3. Verify that the **Options** policy is assigned to the SVM.

Product area - Trellix MOVE AntiVirus SVM (Agentless)

You might see these errors on the **Trellix MOVE AntiVirus** SVM log files while deploying and managing the **Trellix MOVE AntiVirus** SVM (Agentless).

MOVE_ERROR_20001

Error string: [MOVE_ERROR_20001] Failed to create quarantine mount event

Log: **mvsvc.log** on the SVM

Cause: Quarantine details might not be configured properly.

Workaround:

1. Verify that quarantine details are configured in the **Options** policy in **Trellix ePO - On-prem**.
2. Run the policy collector and send an wake-up agent call to the target SVM.
3. From the SVM, open `/opt/McAfee/move/etc/optpolicy.xml` and verify that the quarantine details are updated.
4. Verify that the quarantine path is resolved from the **Trellix ePO - On-prem** server and the **Trellix MOVE AntiVirus** SVM.
5. Make sure that the user has administrator rights to quarantine the share folder.

MOVE_ERROR_20002

Error string: [MOVE_ERROR_20002] Mounting <*name of the network mount*> failed, error(<*system error code*>): <*system error message*>

Log: **mvsvc.log** on the SVM

Cause: Quarantine details might not be configured properly.

Workaround:

1. Verify that quarantine details are configured in the **Options** policy in **Trellix ePO - On-prem**.
2. Run the policy collector and send an wake-up agent call to the target SVM.
3. From the SVM, open `/opt/McAfee/move/etc/optpolicy.xml` and verify that the quarantine details are updated.
4. Verify that the quarantine path is resolved from the **Trellix ePO - On-prem** server and the **Trellix MOVE AntiVirus** SVM.

5. Make sure that the user has administrator rights to quarantine the the share folder.

MOVE_ERROR_20003

Error string: [MOVE_ERROR_20003] Mounting ***[name of the local storage mode]*** failed, error((<*system error code*>)): <*system error message*>

Log: **mvsvc.log** on the SVM

Cause: Quarantine details might not be configured properly.

Workaround:

1. Verify that quarantine details are configured in the **Options** policy in **Trellix ePO - On-prem**.
2. Run the policy collector and send an wake-up agent call to the target SVM.
3. From the SVM, open `/opt/McAfee/move/etc/optpolicy.xml` and verify that the quarantine details are updated.
4. Verify that the quarantine path is resolved from the **Trellix ePO - On-prem** server and the **Trellix MOVE AntiVirus** SVM.
5. Make sure that the user has administrator rights to quarantine the share folder.

MOVE_ERROR_20004

Error string: [MOVE_ERROR_20004] Detected malware <*name of the malware*>, quarantaine failed hence file is not deleted, file has been DENIED ACCESS, VMID: <*ID of the VM*> filename: <*name of the file*>

Log: **mvsvc.log** on the SVM

Cause: Quarantine details might not be configured properly.

Workaround:

1. Verify that quarantine details are configured in the **Options** policy in **Trellix ePO - On-prem**.
2. Run the policy collector and send an wake-up agent call to the target SVM.
3. From the SVM, open `/opt/McAfee/move/etc/optpolicy.xml` and verify that the quarantine details are updated.
4. Verify that the quarantine path is resolved from the **Trellix ePO - On-prem** server and the **Trellix MOVE AntiVirus** SVM.

5. Make sure that the user has administrator rights to quarantine the share folder.

MOVE_ERROR_20005

Error string:
[MOVE_ERROR_20005] hyper_register unable to contact the hypervisor <*name of the exception*> Please verify the hypervisor information supplied in the SVA policy on **Trellix ePO - On-prem**
or
[MOVE_ERROR_20005] hyper_register unable to contact the hypervisor <*name of the exception*> due to invalid credentials. Please verify the hypervisor information supplied in the SVA policy on **Trellix ePO - On-prem**
or
[MOVE_ERROR_20005] hyper_register unable to contact the hypervisor <*name of the exception*> due to invalid hypervisor URL. Please verify the hypervisor information supplied in the SVA policy on **Trellix ePO - On-prem**

Log: **mvsvc.log** on the SVM

Cause: vCenter or hypervisor details might not be configured properly.

Workaround:

1. Verify that the vCenter or hypervisor details are configured in the **SVM Settings** policy in **Trellix ePO - On-prem**.
2. Run the policy collector and send an wake-up agent call to the target SVM.
3. From the SVM, open `/opt/McAfee/move/etc/svapolicy.xml` and verify that the vCenter or hypervisor details are updated.

MOVE_ERROR_20006

Error string: [MOVE_ERROR_20006] hyper_register unable to contact the hypervisor due to timeout <*name of the exception*> Please verify the hypervisor information supplied in the SVA policy on **Trellix ePO - On-prem** and retry

Log: **mvsvc.log** on the SVM

Cause: vCenter or hypervisor details might not be configured properly.

Workaround:

1. Verify that the vCenter or hypervisor details are configured in the **SVM Settings** policy in **Trellix ePO - On-prem**.
2. Run the policy collector and send an wake-up agent call to the target SVM.
3. From the SVM, open `/opt/McAfee/move/etc/svapolicy.xml` and verify that the vCenter or hypervisor details are updated.
4. Verify that you are able to log on to the vCenter or hypervisor.
5. Verify that the vCenter or hypervisor is up and running.

Frequently asked questions

Here are answers to some of the most frequently asked questions relating to the security implications of running **Trellix MOVE AntiVirus** and using its deployment modes.

How can I convert the SVM Manager format to Microsoft Hyper-V format?

Convert the .vmdk file format to .vhd file to deploy the SVM Manager to Microsoft Hyper-V. Attach the converted file as a hard disk to create a new virtual machine.

1. Download and install Microsoft Virtual Machine Converter 3.0 (MVMC 3.0).

   Note

   The SVM Manager can only be converted using the Microsoft Virtual Machine Converter 3.0 command-line **Windows PowerShell** scripts.

2. Click **Start** → **All Programs** → **Accessories**, right-click **Windows PowerShell**, then click **Run as administrator**.
3. In the PowerShell console, run this command: `Import-Module “C:\Program Files\Microsoft Virtual Machine Converter\MvmcCmdlet.psd1”`
4. For .vhdx format image, run this command: `ConvertTo-VirtualHardDisk -SourceLiteralPath "C:\VMDKs\SVM_Manager_3.x-disk1.vmdk"`
5. For .vhd format image, run this command: `ConvertTo-VirtualHardDisk -SourceLiteralPath "C:\VMDKs\SVM_Manager_3.x-disk1.vmdk"-DestinationLiteralPath "C:\VHDs" -VhdType FixedHardDisk -VhdFormat Vhd`
6. After you convert the file format to .vhd or .vhdx, mount the disk image to the Microsoft Server 2012 R2 Hyper-V system:
   a. On the Server 2012 R2 Hyper-V Manager, click **New** → **Virtual Machine**, then click **Next**. Specify these VM details in the wizard, then click **Next**.

Option	Definition
VM Name	Specify the VM name of the instance.

Option	Definition
Memory Size	Set the memory size of the VM.
Network Interface	Specify the details about the network interface associated to the instance.

b. Select **Use and existing virtual hard disk**, specify the path to the .vhdx or .vhd file, then click **Next**.
c. Click **Finish**, then turn on the SVM manager.

How do I enable core dumps for SVM Manager on it's appliance?

Run the command **ulimit -c unlimited** on the terminal.

The Trellix MOVE AntiVirus detection pop-up message does not appear on the Windows desktop. How do I fix this?

Method 1:

Enable the **Trellix Agent** policy option, **Show the Trellix system tray icon (Windows only)**, to display **Trellix MOVE AntiVirus** detection pop-up message on the Windows desktop.

1. Log on to **Trellix ePO - On-prem** as an administrator.
2. Select **Menu** → **Policy** → **Policy Catalog**.
3. From the **Product** drop-down list, select **McAfee Agent**.
4. From the **Category** drop-down list, select **General**.
5. Click **New Policy**.
6. On the **New Policy** page, configure the policy settings, then click **OK**.
7. Open the newly created policy.
8. Enable **Show the McAfee system tray icon (Windows only)** from **General Options** on the **General** tab.
9. Click **Save**, then apply the policy to the clients.

Method 2 (Multi-platform only):

If you need the Multi-platform Threat Event pop-up alerts through the Remote Desktop Protocol (RDP) session, run UPDATERUI.EXE manually.

Perform these steps inside your remote session.

1. Click **Start** → **Run**.
2. Run this command: `"C:\Program Files\McAfee\Common Framework\CmdAgent.exe" /s`

Note

> The **Trellix Agent** icon now appears in the toolbar, and the on-access scan Statistics can be viewed in the remote session.

How can I create an on-demand scan task for a vSphere VM with Agentless?

1. Have the required **Trellix MOVE AntiVirus** extensions in **Trellix ePO - On-prem** and create a Registered Cloud Account for vSphere.
2. Click **System Tree**. You see the vSphere group that was previously added and all client computers under that vSphere group entry.
3. Select an unmanaged computer where you want to trigger the on-demand scan:
   a. Click **Actions** → **Agent** → **Modify Policies on a Single System**.
   b. From the **Product** drop-down list, select **MOVE AntiVirus 4.10.x**.
   c. From the **Category** drop-down list, select **On Demand Scan**.
   d. Click **New Policy**.
   e. On the **New Policy** page, configure the policy settings, then click **OK**.
   f. Open the newly created policy, select **Enable on-demand scan**, then click **Save**.
4. Select the SVM that is managing that client VM and issue wake-up agent call. The on-demand scan starts at the next available slot.

The **Policy Collector** task collects the unmanaged system policies and adds them to the SVM policy for the next policy enforcement.

What can I do if I see the warning message "Failed to get process info of (system)", which is recorded in the Multi-platform client mvagent.log?

This is expected behavior. This informational message can be ignored.

In some environments, you might see these warning messages in the mvagent.log, which is the scan log generated by the **Trellix MOVE AntiVirus** (Multi-platform) client on protected systems:

- **WARNING**: utl_rt.c: 109: Process info is NULL for proc handle 0x4
- **WARNING**: fsh_winnt.c: 216: **Failed to get for process info of (System)**

Note

> The message does not upload as an event to **Trellix ePO - On-prem**.

How can I manually check the DAT version installed on the Trellix MOVE AntiVirus SVM in an Agentless environment?

Check which DAT version is installed on the **Trellix MOVE AntiVirus** SVM using the Linux command line interface (CLI).

Method 1:

1. Log on to the **Trellix MOVE AntiVirus** SVM.
2. At the command prompt, run this command: `sudo`

3. When prompted, provide valid credentials.
4. Run this command to display the SVM details: **/opt/McAfee/ens/tp/bin/mfetpcli --v For example: McAfee® Endpoint Security for Linux Threat Prevention** Version: 10.7.7.24 License: Full DAT Version: 4860.0 DAT Date : 24-01-2022 Engine Version: 6300.9389 Exploit Prevention Content Version: 10.7.0.00079

Method 2:

1. Log on to the **Trellix MOVE AntiVirus** SVM.
2. At the command prompt, run this command: `sudo /opt/McAfee/move/bin/sva-config -v`
3. When prompted, provide valid credentials.

> **Note**
>
> The required details appear in the command window.

How can I fix any filesystem error that appears after deploying Agentless?

1. Download a new copy of the Agentless OVF template from the product download site.
2. Deploy the Agentless OVF template. For details, see *Agentless installation and configuration* in the ***Trellix MOVE AntiVirus*** *4.10.x Installation Guide*.

What do I do if Agentless SVM shows as unmanaged when registering with the Trellix ePO - On-prem server?

Make sure that the copy of the Agentless OVF package is from a known good source, preferably the **Trellix** download site, then do a fresh deployment.

Perform these steps only if the SVM shows as **Unmanaged** in the **Trellix ePO - On-prem System Tree**.

1. Delete the system from **Trellix ePO - On-prem**. When prompted, do not choose to remove the **Trellix Agent**.
2. For the existing SVM, from the local command line interface, run the registration script with this command: `sudo /opt/McAfee/move/bin/sva-config`
3. When prompted, click **Yes** to unregister with the vShield Manager.
4. Complete the procedure to unregister the product.
5. Turn off the SVM and delete it from the disk.
6. Continue with the new deployment.

Agentless configuration fails and displays failed status on the Trellix ePO - On-prem for the vCenter account. How do I fix this?

There are two causes for the status to show Configuration Failed:

- If the vShield Manager is not registered with vCenter under **Registered Cloud Accounts**, then the vCenter appears as **Not Configured** on the **Trellix ePO - On-prem** console under **Trellix MOVE AntiVirus** (Agentless).
- If the vShield Manager was first successfully registered with vCenter, but later removed from the **Registered Cloud Accounts**, it might not.3 synchronize the vCenter account successfully, resulting in **Not Configured** being displayed on the **Trellix ePO - On-prem** console under **Trellix MOVE AntiVirus** (Agentless).

Register or re-register the vCenter account under **Registered Cloud Accounts**.

1. Log on to **Trellix ePO - On-prem** as an administrator.
2. Select **Menu** → **configuration** → **Registered Cloud Accounts** to open the **Registered Cloud Account** page.
3. Select the vCenter Account and click **Delete**.
4. Restart the **ePolicy Orchestrator - On-prem** Event Parser Service.
5. Select **Menu** → **Registered Cloud Accounts**, and confirm that the specific vCenter account is now deleted.
6. On the **Registered Cloud Account** page, click **Actions**, then select **Add Cloud Account**.
7. Type the **vCenter Account Details** on the **Registered Cloud Accounts** page, then click **Test Connection**.
8. If **Test Connection** is successful, click **Next**, then accept the certificate.
9. Click **Finish**, then click **OK**.
10. Check the configuration status of the vCenter Account, and now it shows as **Configured**.

The **Trellix ePO - On-prem** server now creates a task that synchronizes the vCenter according to the above configuration.

How do I keep disabled Windows Defender on Windows 10 system after installing Multi-platform?

1. Open the command prompt as an administrator.
2. Run these commands one after the other:
    - **mvadm config set IntegrityEnabled=0**
    - **sc stop mvagtsvc**
    - **sc start mvagtsvc**
    - **mvadm config set IntegrityEnabled=7**
3. Close the command prompt window.

How do I avoid loss of network connectivity on virtual machines that use VMXNet3 NICs when deploying Agentless through Trellix ePO - On-prem?

Method 1:

Make sure that the version of VMware Tools installed on the virtual machine is the exact same build as the VMware Tools version supplied by the host. When the script is invoked and the builds match, only the needed Guest Introspection (vShield components) are installed.

Method 2:

Make sure that the virtual machines also have their e1000 NICs installed, to maintain network functionality when the script is invoked remotely.

How do I delete the IP pool when an IP address is already in use?

Run this SQL query to remove the IP Pool details from the **Trellix ePO - On-prem** database:

```
DELETE FROM [DC_AL_CONFIG_IPPOOL] WHERE IPPOOL_NAME='<POOL_NAME>'
```

What do I do when the error "Critical error. Downloading Trellix ePO - On-prem init files failed" appears when deploying SVM through Trellix ePO - On-prem using an IP Pool?

When you deploy the SVM through **Trellix ePO - On-prem** using an IP Pool on the VMware ESX host, you might see these errors in the SVM console session:

- ERROR [MOVEAL:pool-1-thread-1] svm.SvmEpoRegistrationTaskImpl - **Trellix ePO - On-prem** Registration failed for SVM with VM name and for the Hypervisor: HyperVisor_Name
- ERROR [MOVEAL:pool-1-thread-1] svm.SvmEpoRegistrationTaskImpl - Reason being: Critical error. Downloading **Trellix ePO - On-prem** init files failed.

When you see these errors, make sure that the prefix length is correct for the IP Pool according to the characteristics of the destination network.

What is the error return code description for Trellix MOVE AntiVirus (Agentless) SVM registration with the vShield Manager?

When **Trellix MOVE AntiVirus** (Agentless) SVM registration fails, vShield Manager provides a **Return Code** error.

Return Code	Definition
200	OK operation successful.
201	Created: Entity successfully altered.
400	Bad Request: Internal error codes. See the Error Schema for more details.
401	Unauthorized: Incorrect user name or password.
600	Unrecognized vendor ID.
601	Vendor is already registered.
602	Unrecognized altitude.
603	Solution is already registered.
604	Invalid IPv4 address.
605	Invalid port.
606	Port out of range.

Return Code	Definition
607	Unrecognized Managed Object Reference ID (MOID).
608	Location information is already set.
609	Location not set.
610	Insufficient rights.
612	Solutions still registered.
613	Solution location information still set.
614	Solution still activated.
615	Solution not activated.
616	Solution is already activated.
617	IP: Port already in use.
618	Bad solution ID.
619	vShield Endpoint is not licensed.
620	Internal error.

I am using Trellix MOVE AntiVirus (Agentless) in an NSX-T environment. Where do I find the original name of the host name where the infection occurred instead of IP of Trellix MOVE AntiVirus SVM?

The Threat Event Log displays the host name of the system where the infection occurred.

Note

Make sure that you configured **SVM Configuration** details and tested connection settings in the **SVM Settings** policy on the **Trellix ePO - On-prem** server.

1. Log on to **Trellix ePO - On-prem** as an administrator.

2. Select **Menu** → **Reporting** → **Threat Event Log**.

I am using Trellix MOVE AntiVirus (Agentless) in an NSX-T environment. For some reason, Trellix MOVE AntiVirus SVM is doing nothing. How do I redeploy the Trellix MOVE AntiVirus SVM?

1. Navigate to the NSX-T console.
2. Navigate to **System** → **Service deployment**.
3. Select the service deployment and delete it. After successful deletion, deploy the service again.

What do I do when error "Internal error on the server" appears when trying to delete a Registered Cloud Account?

This error occurs if you select **Delete Tags**, and one or more systems that do not belong to that cloud account erroneously have the same tag assigned.

Method 1:

1. From the **Delete Account** dialog box, deselect **Delete Tags**, and then click **OK** to delete the registered cloud account.

Method 2:

1. Identify one or more systems that do not belong to the registered cloud account but have the same tag assigned.
2. Remove the tag from the systems you identified.
3. Delete the registered cloud account.

I exported SVM Settings policy from one Trellix ePO - On-prem (source) to another Trellix ePO - On-prem (destination). The imported policy still has old Trellix ePO - On-prem (source) credentials. How do I fix this?

To update **Trellix ePO - On-prem** password in the imported SVM Settings policy, you must again configure the **Trellix ePO - On-prem** details about the **Trellix ePO - On-prem** server.

1. Log on to **Trellix ePO - On-prem** (destination) as an administrator.
2. Select **Menu** → **Automation** → **MOVE AntiVirus Deployment**.
3. On the **Configuration** tab, click **General** and enter and confirm the password of the **Trellix ePO - On-prem**.

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