



# Tanium™ Endpoint Configuration User Guide

Version 1.3.294

February 24, 2021

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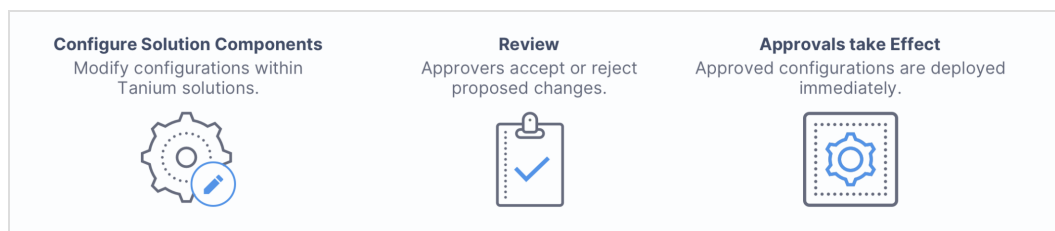
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# Endpoint Configuration overview

Use Endpoint Configuration to deliver configuration information to endpoints consistently for all Tanium solutions that are available in an environment. Endpoint Configuration consolidates the configuration actions that traditionally accompany additional Tanium functionality and eliminates the potential for timing errors that occur between when a solution configuration is made and the time that configuration reaches an endpoint. Managing configuration in this way greatly reduces the time to install, configure, and use Tanium functionality, and improves the flexibility to target specific configurations to groups of endpoints.

Endpoint Configuration adds solution-specific configurations to a configuration manifest and uses one consistent action to distribute it to all endpoints. All the configuration data that reaches the endpoint is then sensitive to changes that affect the endpoint. For example, the configuration is not applied to an endpoint if the endpoint is no longer a member of the relevant targeting group.



## Configurations

*Configurations* combine solution-specific data and targeting information—for example, a computer group or the results of a sensor. Examples of configurations could be a change to a Tanium Threat Response profile that targets one or more computer groups, or an updated Tanium Patch scan configuration that targets one or more endpoints that match the results of a sensor. If configuration approval is enabled in Endpoint Configuration, the configuration change appears in Endpoint Configuration for approval for deployment to endpoints that the configuration targets when configuration changes are made in a Tanium solution.

Solution administrators can evaluate and configure the priority for configuration items to address specific scenarios. For example, consider a patching scenario where all Windows endpoints must receive all patches but Windows servers must receive only security related patches. Since a Windows Server target is more specific than a Windows Endpoint target, a solution administrator can configure that setting as having higher priority.

## Approvals

When configuration approval is enabled, Endpoint Configuration creates an *approval* for each configuration that is a candidate for deployment to targeted endpoints. When an approval appears in Endpoint Configuration, a configuration approver with appropriate credentials can approve or reject the approval.

Each approval displays the domain (the Tanium solution to which it applies), a category for that domain, and a description of the configuration change that would be deployed to the targeted endpoints if approved. To show the effect that deploying the configuration change to the targeted endpoints would have, each approval also displays a before-and-after comparison of the configuration change that would be made.

## Getting started with Endpoint Configuration

### **Step 1: Install and configure Endpoint Configuration**

Endpoint Configuration is installed as part of Tanium™ Client Management. Use the **Tanium Solutions** page to install Client Management and choose either automatic or manual configuration.

For more information, see [Installing Endpoint Configuration](#).

### **Step 2: Manage configurations**

Configurations are defined in a Tanium solution. When a configuration is created or changed, the configuration is displayed in Endpoint Configuration in the pending state if configuration approval is enabled.

See [Managing configurations](#).

### **Step 3: Manage approvals**

If configuration approval is enabled, when a configuration change is made in a supported Tanium solution, an approval is displayed in the Approvals page of Endpoint Configuration.

See [Managing approvals](#).

# Endpoint Configuration requirements

Review the requirements before you install and use Endpoint Configuration.

## Tanium dependencies

In addition to a license for Endpoint Configuration, make sure that your environment meets the following requirements.

Component	Requirement
Tanium™ Core Platform	7.3.314.4250 or later
Tanium™ Client	<p>Any supported version of Tanium Client. For the Tanium Client versions supported for each OS, see <a href="#">Tanium Client User Guide: Client version and host system requirements</a>.</p> <p>If you use a client version that is not listed, certain product features might not be available, or stability issues can occur that can only be resolved by upgrading to one of the listed client versions.</p> <p>Some Tanium solutions that manage the deployment of configuration changes with Tanium Endpoint Configuration might require a higher client version.</p>
Tanium products	<p>If you selected <b>Install with Recommended Configurations</b> when you installed Client Management, the Tanium Server automatically installed all your licensed modules at the same time. Otherwise, you must manually install the modules with which you are using Endpoint Configuration, as described under <a href="#">Tanium Console User Guide: Manage Tanium modules</a>.</p>
Computer groups	<p>When you first log into the Tanium Console after a fresh installation of Tanium Server 7.4.2 or later, the server automatically imports the computer groups that Endpoint Configuration requires.</p> <p>For earlier versions of the Tanium Server, or after upgrading from an earlier version, you must manually create the computer groups: see <a href="#">Create computer groups</a>.</p>

## Tanium™ Module Server

Endpoint Configuration is installed and runs as a service on the Module Server host computer. The impact on the Module Server is minimal and depends on usage.

For more information, see [Tanium Core Platform Installation Guide: Host system sizing guidelines](#).

## Endpoints

### Supported operating systems

The following endpoint operating systems are supported with Endpoint Configuration.



Operating System	Version	Notes
Windows	A minimum of Windows 7 SP1 or Windows Server 2008 R2 SP1 is required.	
macOS	Same as Tanium Client support. See <a href="#">Tanium Client User Guide: Host system requirements</a> .	
Linux	Same as Tanium Client support. See <a href="#">Tanium Client User Guide: Host system requirements</a> .	
AIX	A minimum of AIX 7.1.4 is required.	The IBM XL C++ runtime libraries file set (x1C.rte), version 16.1.0.0 or later, and the IBM LLVM runtime libraries file set (libc++.rte) must be installed. For installation instructions, see <a href="#">Tanium Client User Guide: Deploying the Tanium Client to AIX endpoints</a> .
Solaris	Same as Tanium Client support. See <a href="#">Tanium Client User Guide: Host system requirements</a> .	

For Tanium Client operating system support, see [Tanium Client User Guide: Host system requirements](#).

Some modules that work with Endpoint Configuration have more specific requirements for endpoints. For more information, see the user guide for each module.

## Host and network security requirements

### Security exclusions

If security software is in use in the environment to monitor and block unknown host system processes, your security administrator must create exclusions to allow the Tanium processes to run without interference. For a list of all security exclusions to define across Tanium, see [Tanium Core Platform Deployment Reference Guide: Host system security exclusions](#).

### Endpoint Configuration security exclusions

Target Device	Notes	Process
Module Server		<Module Server>\services\endpoint-configuration-service\taniumEndpointConfigService.exe

## User role requirements

The following tables list the role permissions required to use Endpoint Configuration. For more information about role permissions and associated content sets, see [Tanium Core Platform User Guide: Managing RBAC](#).

**IMPORTANT:** Each Tanium Solution features a role such as **<Solution Name> Configuration Approver** that grants a **<solution name> endpoint configuration approve** permission. This permission is required for a user to make approvals in Endpoint Configuration. For the exact names of solution-specific roles and permissions, see the user guide for the specific Tanium solution.











### Endpoint Configuration user role permissions

Permission	Endpoint Configuration Administrator	Endpoint Configuration Service Account
<b>Show Endpoint Configuration</b> Allows the user to see the Endpoint Configuration workbench	✓	✗
<b>Show Endpointconfiguration</b> Allows the user to see the Endpoint Configuration workbench	✓	✗
<b>Endpoint Configuration Service Account Write</b> Allows users to write the service account for Endpoint Configuration	✓	✗
<b>Endpoint Configuration Module Use</b>	✓	✗
<b>Endpoint Configuration Read</b> Allows users to read endpoint configurations	✓	✗
<b>Endpoint Configuration Service Account Read</b> Allows users to write the service account for Endpoint Configuration	✓	✗
<b>Endpoint Configuration Use API</b> Perform Endpoint Configuration operations using the API	✓	✗
<b>Endpoint Configuration Module Register</b> Provides the Endpoint Configuration service account permission to register Tanium solutions with Endpoint Configuration	✗	✓
<b>Endpoint Configuration Service Account</b> Allows service account credentials to the user	✗	✓

### Endpoint Configuration user role permissions (continued)

Permission	Endpoint Configuration Administrator	Endpoint Configuration Service Account
<b>Endpoint Configuration Reject</b> Allows the user to reject configuration changes in Endpoint Configuration	1	1
<b>Endpoint Configuration Dismiss</b> Allows the user to dismiss configuration changes in Endpoint Configuration	1	1
<b>Endpoint Configuration Write</b> Allows the user to write configuration changes in Endpoint Configuration	1	1
<b>Endpoint Configuration Approve</b> Allows the user to approve configuration changes in Endpoint Configuration	1	1
<b>Endpoint Configuration Bypass Approval</b> You can apply this permission to module service accounts, and based on the content set, it bypasses approval for solution-generated configuration items, for example tools or intel deployment.  You can apply this permission to a user account, and based on the content set, it bypasses approval for user-generated configuration items.	2	2
<sup>1</sup> This permission is provided to a solution specific role for managing configuration approvals. <sup>2</sup> This permission is not provided by default to any roles.		

### Provided Endpoint Configuration Micro Admin and Advanced user role permissions

Permission	Role Type	Content Set for Permission	Endpoint Configuration Administrator	Endpoint Configuration Service Account
Read Computer Group	Micro Admin			
Read Filter Group	Micro Admin			
Read Action Group	Micro Admin			
Read Action	Advanced	Endpoint Configuration		
Execute Plugin	Advanced	Endpoint Configuration		

**Provided Endpoint Configuration Micro Admin and Advanced user role permissions (continued)**

Permission	Role Type	Content Set for Permission	Endpoint Configuration Administrator	Endpoint Configuration Service Account
Read Plugin	Advanced	Endpoint Configuration	✓	✓
Write Action	Advanced	Endpoint Configuration	✗	✓
Write Package	Advanced	Endpoint Configuration	✗	✓
Read Own Action	Advanced	Endpoint Configuration	✗	✓
Read Package	Advanced	Endpoint Configuration	✗	✓
Show Preview	Advanced	Endpoint Configuration	✗	✓
Read Plugin	Advanced	Endpoint Configuration	✗	✓

# Installing Endpoint Configuration

Endpoint Configuration is installed as part of Tanium Client Management. When you install Client Management the Endpoint Configuration workbench becomes available from the Tanium Console. For more information, see [Tanium Client Management User Guide: Installing](#).

Use the **Tanium Solutions** page to install Endpoint Configuration and choose either automatic or manual configuration:

- **Automatic configuration with default settings** (Tanium Core Platform 7.4.2 or later only): Endpoint Configuration is installed with any required dependencies and other selected products. After installation, the Tanium Server automatically configures the recommended default settings. This option is the best practice for most deployments. For more information about the automatic configuration for Endpoint Configuration, see [Import and configure Endpoint Configuration with default settings on page 13](#).
- **Manual configuration with custom settings**: After installing Endpoint Configuration, you must manually configure required settings. Select this option only if Endpoint Configuration requires settings that differ from the recommended default settings. For more information, see [Import and configure Endpoint Configuration with custom settings on page 14](#).

## Before you begin

- Read the [release notes](#).
- Review the [Endpoint Configuration requirements on page 8](#).
- Assign the correct roles to users for Endpoint Configuration. Review the [User role requirements on page 9](#).
  - To import the Endpoint Configuration solution, you must be assigned the Administrator reserved role.
  - To configure the ProductName action group, you must be assigned the Content Administrator reserved role.

## Import and configure Endpoint Configuration with default settings

To import Endpoint Configuration and configure default settings, be sure to select the **Apply Tanium recommended configurations** check box while performing the steps in [Tanium Console User Guide: Manage Tanium modules](#). After the import, verify that the correct version is installed: see [Verify Endpoint Configuration version on page 14](#).

## Import and configure Endpoint Configuration with custom settings


To import Endpoint Configuration without automatically configuring default settings, be sure to clear the **Apply Tanium recommended configurations** check box while performing the steps in [Tanium Console User Guide: Manage Tanium modules](#). After the import, verify that the correct version is installed: see [Verify Endpoint Configuration version on page 14](#).

### Configure service account

The service account is a user that runs several background processes for Endpoint Configuration. This user must be a Tanium Administrator.

**IMPORTANT:** If action approval is enabled for Tanium Core Platform, assign the **Endpoint Configuration Service Account** role to the Endpoint Configuration service account in addition to the **Tanium Administrator** role. For more information, see [Tanium Console User Guide: Managing action approval](#).

For more information about Endpoint Configuration permissions, see [User role requirements on page 9](#).


1. From the Main menu, click **Endpoint Configuration** to open the Endpoint Configuration **Overview** page.
2. Click Settings  and open the **Service Account** tab.
3. Update the service account settings and click **Save**.

### Configure Endpoint Configuration action group

1. From the Main menu, click **Administration > Actions > Scheduled Actions**.
2. From the list of action groups, click **Endpoint Configuration**.
3. Click **Edit**, select computer groups to include in the action group, and click **Save**.

## Verify Endpoint Configuration version

After you import or upgrade Endpoint Configuration, verify that the correct version is installed:

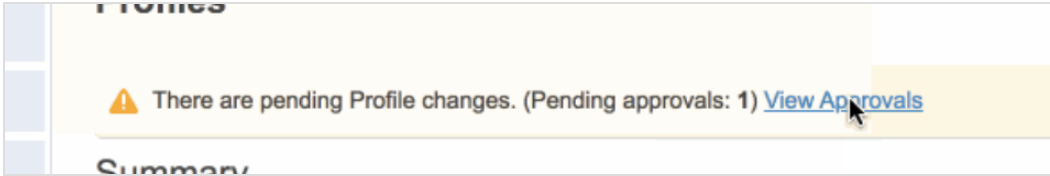
1. Refresh your browser.
2. From the Main menu, go to **Administration > Shared Services > Endpoint Configuration** to open the Endpoint Configuration **Overview** page.
3. To display version information, click Info .

## Troubleshoot problems

If you experience problems with installing Endpoint Configuration, see [Troubleshooting Endpoint Configuration on page 19](#).

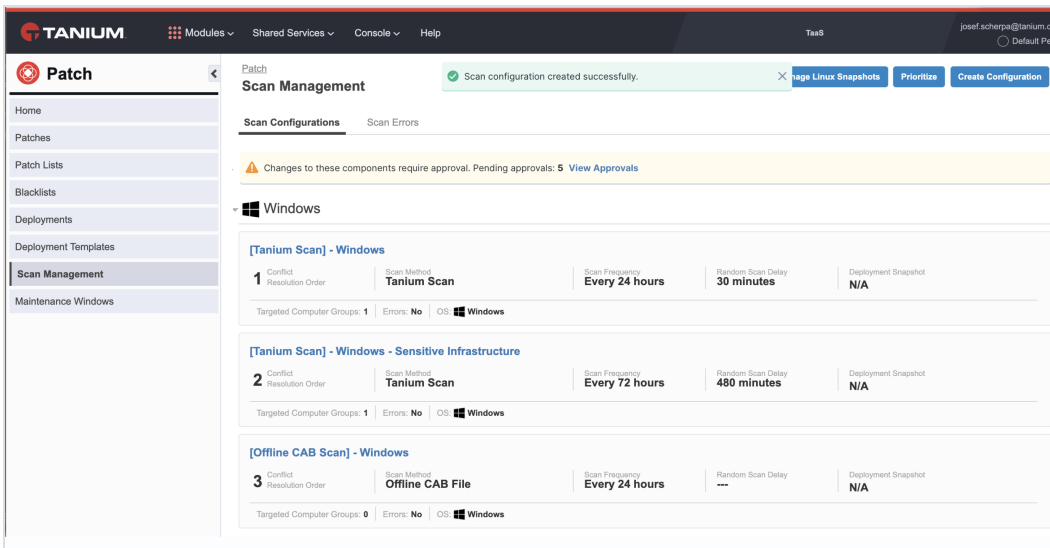
# Managing configurations

Configurations are defined in each Tanium solution. If configuration approval is enabled, a banner appears in the solution to alert the user that configuration changes are pending approval in Endpoint Configuration when a user creates or changes a configuration. For example, if a Threat Response profile is changed, a banner appears to alert the user that a configuration change has been made and requires approval in Endpoint Configuration before it can be deployed to endpoints.



When you create or change a configuration, the configuration appears in Endpoint Configuration in the pending state. After a configuration approver approves the pending configuration, the configuration is deployed to the targeted endpoints.

For example, if a Tanium Patch Administrator makes or updates Scan configurations in Patch, the new and changed scan configurations appear in Endpoint Configuration as **Pending**. The data in these configurations is not deployed to the targeted endpoints until they have been approved.






# Managing approvals

## Enable configuration approvals

To use Endpoint Configuration to manage approvals, you must enable configuration approvals.

1. From the Home page, go to **Administration > Shared Services > Endpoint Configuration** to open the Endpoint Configuration **Overview** page.
2. Click Settings  and click the **Global** tab.
3. Select **Enable configuration approvals**, and click **Save**.

If you do not enable configuration approvals, solution-specific configuration changes are made through individual Tanium solutions.

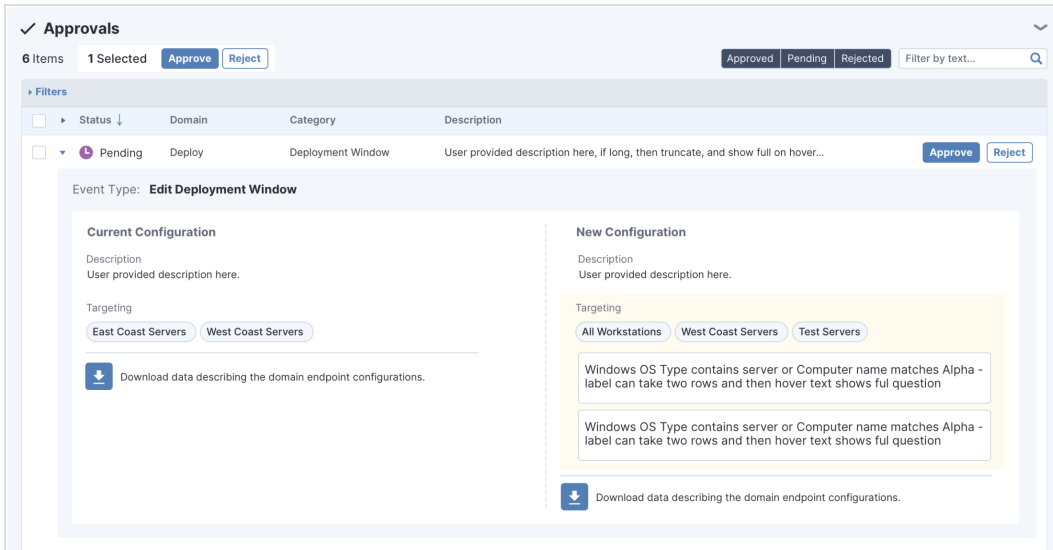
**Note:** You can bypass configuration approvals for solution or user-generated configuration changes by applying the **Endpoint Configuration Bypass Approval** permission to a service or user role that is associated with one or more content sets to limit the scope of approvals.

## Approve or reject configuration changes

When configuration approvals are enabled, and a configuration change is created or made in a supported Tanium solution, an approval appears in the Approvals page of Endpoint Configuration for a configuration approver to approve or reject. If approved, the configuration change is deployed to the targeted endpoints.

**Note:** To approve a configuration change, you must have both Endpoint Configuration permissions and appropriate solution permissions. The approver cannot be the same user who made a configuration change. The **Requires other approver** status displays if a user who made a configuration change attempts to approve them.

1. From the Endpoint Configuration menu, click **Approvals**.



2. Review configurations that are awaiting approval or rejection, which display a status of **Pending**. Select one or more configurations. View the description of the configurations to understand the domain (Tanium solution) with which the approvals are associated, the functional area of the domain, and a description of the configuration change.

**Note:** By default, you can only see configurations for modules for which you have credentials to view.

Additionally, a comparison of the configuration change is provided for an at-a-glance understanding of the impacts that the change has on the targeted endpoints.

3. (Optional) Click **Download data describing the domain endpoint configurations** to view the content of the configuration.
4. Click **Approve** or **Reject**. Confirm that you want to Approve or Reject the pending approvals.
5. If an approval is in the **Approved** or **Rejected** state, click **Dismiss** to remove the approval from the Approvals page.


After a configuration is approved, it is immediately deployed to endpoints.

# Troubleshooting Endpoint Configuration

To collect and send information to Tanium for troubleshooting, and other relevant information.

## Collect logs

The information is saved as a ZIP file that you can download with your browser.

1. From the Client Management home page, click Help , then the **Troubleshooting** tab.
2. Click **Download Debug Package**.  
A `tanium-client-management-support.zip` file downloads to the local download directory.
3. Attach the ZIP file to your Tanium Support case form or [contact Tanium Support](#).

Tanium Client Management maintains logging information in the `client-management.log` file in the `\Program Files\Tanium\Tanium Module Server\services\client-management-files` directory.

## Block or unblock tools from installing on an endpoint

To block or unblock the installation of one or more tools on an endpoint that is included in an Endpoint Configuration manifest, distribute the **Endpoint Configuration - Block Tool** or **Endpoint Configuration - Unblock Tool** package.

### Block the installation of a tool

1. Target the endpoints on which you want to block tool installation.
2. Click **Deploy Action**.
3. (Windows) Select the **Endpoint Configuration - Block Tool [Windows]** package.
4. (Non-Windows) Select the **Endpoint Configuration - Block Tool [Non-Windows]** package.
5. Choose a tool from the dropdown, or provide a manual tool name.

### Unblock the installation a tool

1. Target the endpoints on which you want to block tool installation.
2. Click **Deploy Action**.
3. (Windows) Select the **Endpoint Configuration - Unblock Tool [Windows]** package.
4. (Non-Windows) Select the **Endpoint Configuration - Unblock Tool [Non-Windows]** package.
5. Choose a tool from the dropdown, or provide a manual tool name.

## Uninstall one or more tools installed by Endpoint Configuration.

To uninstall one or more tools on an endpoint that was installed by Endpoint Configuration, distribute the **Endpoint Configuration - Uninstall Tool** package.

1. Target the endpoints on which you want to uninstall a tool.
2. Click **Deploy Action**.
3. (Windows) Select the **Endpoint Configuration - Uninstall Tool [Windows]** package.
4. (Non-Windows) Select the **Endpoint Configuration - Uninstall Tool [Non-Windows]** package.
5. Set the **Block reinstallation** parameter to block the reinstallation of the tool. If unset, the tool will be installed on the endpoint the next time the Endpoint Configuration tools installation is performed.
6. Set the **Soft uninstall** parameter to perform a soft uninstall, leaving some content in place; for example, logs and data. Uncheck to perform a hard uninstall, removing everything tracked by the tool.
7. Set the **Remove unreferenced dependencies** parameter to remove any additional unreferenced tools that were a dependency of the tool being removed.

## Reinstall one or more tools installed by Endpoint Configuration.

To reinstall one or more tools on an endpoint that was installed by Endpoint Configuration, distribute the **Endpoint Configuration - Reinstall Tool** package. The most recent version of the targeted tooling is installed.

**Note:** Before you attempt to reinstall a tool, ensure that the tool is not blocked on the endpoint.

1. Target the endpoints on which you want to reinstall a tool.
2. Click **Deploy Action**.
3. (Windows) Select the **Endpoint Configuration - Reinstall Tool [Windows]** package.
4. (Non-Windows) Select the **Endpoint Configuration - Reinstall Tool [Non-Windows]** package.
5. Choose a tool from the dropdown, or provide a manual tool name.
6. Set Reinstall Dependencies to reinstall any dependencies of the tool being installed.

**Note:** Each Tanium solution features a **ToolName -- Tools Cache [1]** package. These packages define how all the files that an endpoint downloads are loaded into the Tanium Server cache. These packages should never be manually deployed to endpoints.

## Uninstall Endpoint Configuration


**IMPORTANT:** Uninstalling Endpoint Configuration impacts all Tanium solutions. Contact Tanium support before you uninstall Endpoint Configuration.

1. From the Main menu, click **Tanium Solutions**.
2. In the Tanium Content section, select the **Endpoint Configuration** row.
3. Click **Uninstall Solution**. Click **Uninstall** to complete the process.

## Contact Tanium Support

To contact Tanium Support for help, send an email to [support@tanium.com](mailto:support@tanium.com).

# Reference: Endpoint Configuration settings

To access Endpoint Configuration settings from the Endpoint Configuration **Overview** page, go to Settings  and click **Settings**.

**IMPORTANT:** [Contact Tanium Support](#) before you edit any settings in Endpoint Configuration.

## Global Endpoint Configuration settings

Setting	Default value	Description
Enable configuration approvals	Unselected	Toggles configuration approval with Endpoint Configuration.
Manifest job quiet period seconds	30 seconds	The amount of time to wait (in seconds) to run the manifest job after receiving a configuration update.
Manifest job retry seconds	60 seconds	The amount of time to wait (in seconds) to retry a failed manifest job.
Manifest action distribute seconds	60 seconds	The time (in seconds) over which to distribute the manifest distribution action.
Manifest action duration seconds	3600 seconds	The duration of time (in seconds) that the manifest action that configures both expiration and issue can run.
Manifest action wait package seconds	600 seconds	The duration of time to wait for the manifest package to cache files before deploying the action.
Tools package job seconds	300 seconds	The frequency (in intervals of seconds) of the tools package manager job.
Auditing retention days	365 days	The number of days to retain audit logs.
Auditing cleanup interval minutes	480 minutes	The number of minutes between checks to clean up audit logs.
Deploy client configuration and support action distribute seconds	60 seconds	The distribute over time value for the client configuration and support distribution action.
Deploy client configuration and support action duration	3600 seconds	The duration of the client configuration and support distribution action (configures both expiration as well as issue-seconds).
Minimum log level	Info	The minimum log message level to write to the logs.

## Tools installation settings

Setting	Default value	Description
Distribute over time (seconds)	0 seconds	Endpoint Configuration randomizes tools deployments over an interval to prevent excessive resource consumption. Changing the value of distribute over time changes the length of that window.