



Tanium™ End-User Notifications User Guide

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End-User Notifications overview

End-User Notifications is a shared service that is used by other Tanium products, such as Tanium Deploy, Tanium™Patch, and Tanium™Protect to notify users about system actions. It is also used by Deploy for self service capabilities.

End-User Notifications

When you use End-User Notifications with other solutions, you can create notification messages to notify the user of system actions or user requirements.

End-User Self Service

When you use End-User Notifications with Deploy, you can configure the Self Service Client application for Windows endpoints. With the Self Service Client application, you can publish software to endpoints so that users can install software on their own without the need for IT to install for them. For more information, see [Customizing the end-user interface on page 18](#).

Integration with other Tanium products

End-User Notifications integrates with other Tanium products to provide additional features.

Deploy

End-User Notifications is used by Deploy to notify users about deployments to Windows endpoints, and to configure End-User Self Service capabilities. You can create a notification message with your deployment to notify the user that the system is about to begin a deployment, has completed a deployment, and if postponements are enabled, to give the user the option to postpone the deployment or restart now. For more information, see [Tanium Deploy User Guide: Windows endpoint restarts](#) or [Tanium Deploy User Guide: Using the Self Service Client application](#).

Patch

End-User Notifications is used by Patch to notify users about deployments to Windows endpoints. You can create a notification message with your deployment to notify the user that the system is about to begin a deployment, has completed a deployment, and if

postponements are enabled, to give the user the option to postpone the deployment or restart now. For more information, see [Tanium Patch User Guide: Endpoint restarts](#).

Protect

End-User Notifications is used by Protect to instruct users to enable encryption, and to notify users before a restart. You can create a notification message in the FileVault policy that displays either at log out or during the next log in. Users can dismiss the message multiple times if the FileVault policy allows it. For more information, see [Tanium Protect User Guide: Create a FileVault policy](#). You can also create a notification message that displays to the user after a BitLocker policy is enforced. The message notifies users before the computer is restarted to prepare their drives for encryption. For more information, see [Tanium Protect User Guide: Create a BitLocker policy](#).

Getting started

Step 1: Install and configure Tanium End-User Notifications

Install and configure Tanium End-User Notifications.

For more information, see [Installing End-User Notifications on page 14](#).

Step 2: Configure endpoint restart notifications for Deploy or Patch deployments

Configure endpoint restart notifications for Deploy or Patch deployments.

For more information, see [Tanium Deploy User Guide: Deploying packages and bundles](#) or [Tanium Patch User Guide: Deploying patches](#).

Step 3: Configure notifications for Protect FileVault or Bitlocker policies

Configure notifications for Protect FileVault or Bitlocker policies.

For more information, see [Tanium Protect User Guide: Create a FileVault policy](#) or [Tanium Protect User Guide: Create a BitLocker policy](#).

Step 4: Customize the end-user interface to use with Deploy

Customize the end-user interface to use with Deploy.

For more information, see [Customizing the end-user interface on page 18](#).

End-User Notifications requirements

Review the requirements before you install and use End-User Notifications.

Tanium dependencies

In addition to a license for the End-User Notifications product module, make sure that your environment also meets the following requirements.

Component	Requirement
Tanium™ Core Platform	7.2 or later.
Tanium™ Client	<p>Any supported version of Tanium Client. For the Tanium Client versions supported for each OS, see Tanium Client User Guide: Client version and host system requirements.</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>
Tanium products	<p>If you clicked the Install with Recommended Configurations button when you installed End-User Notifications, the Tanium Server automatically installed all your licensed modules at the same time. Otherwise, you must manually install the modules that End-User Notifications requires to function, as described under Tanium Console User Guide: Manage Tanium modules.</p> <p>The following modules are optional, but End-User Notifications requires the specified minimum versions to work with them:</p> <ul style="list-style-type: none">• Tanium Deploy 1.3 or later for end-user notifications or end-user self service• Tanium Patch 2.1 or later for end-user notifications• Tanium Protect 2.0 or later for end-user notifications for BitLocker policies• Tanium Protect 2.3 or later for end-user notifications for FileVault policies
Computer groups	<p>When you first sign in to the Tanium Console after installing the Tanium Server, the server automatically imports the computer groups that End-User Notifications requires: <code>All Computers</code>.</p>

Tanium™ Module Server

End-User Notifications 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.

Endpoints

End-User Notifications supports the following client operating systems:

Operating System	Version	Notes
Windows Server	<ul style="list-style-type: none">Windows Server 2016Windows Server 2012 R2Windows Server 2012Windows Server 2008 R2 Service Pack 1 or later	Windows Server Core not supported.
Windows Workstation	<ul style="list-style-type: none">Windows 10Windows 8.1Windows 8Windows 7 Service Pack 1 or later	Windows 7 Service Pack 1 requires Microsoft KB2758857 .
macOS	<ul style="list-style-type: none">macOS 11.0 Big SurmacOS 10.15 CatalinamacOS 10.14.6 MojavemacOS 10.13.6 High Sierra	Supported for Protect FileVault policy only.

Host and network security requirements

Specific ports and processes are needed to run End-User Notifications.

Ports

The following ports are required for End-User Notifications communication.

Source	Destination	Port	Protocol	Purpose
Module Server	Module Server (loopback)	17476	TCP	Internal purposes; not externally accessible

Best Practice: Configure firewall policies to open ports for Tanium traffic with TCP-based rules instead of application identity-based rules. For example, on a Palo Alto Networks firewall, configure the rules with service objects or service groups instead of application objects or application groups.

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](#).

Table 1: End-User Notifications security exclusions

Target Device	Notes	Process
Module Server		<Module Server>\services\end-user-notifications-service\node.exe
		<Module Server>\services\twsm-v1\twsm.exe
Windows endpoints	7.2.xdients	<Tanium Client>\Python27\TPython.exe
	7.4.xdients	<Tanium Client>\Python38\TPython.exe
		<Tanium>\Tanium End User Notification Tools\UserSessionProxy.exe
		<Tanium>\Tanium End User Notification Tools\bin\end-user-notifications.exe
	exclude from on-access or real-time scans	<Tanium>\Tanium End User Notification Tools\
macOS endpoints	7.2.xdients	<Tanium Client>/python27/bin/pybin
	7.4.xdients	<Tanium Client>/python38/bin/pybin
		/Library/Tanium/EndUserNotifications/bin/end-user-notifications.app
		/Library/Tanium/EndUserNotifications

User role requirements

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

Table 2: End-User Notifications user role permissions

Permission	End-User Notifications Administrator	End-User Notifications Operator	End-User Notifications Read Only User
Show Endusernotifications View the End-User Notifications shared service	1	1	1
End User Notifications Use Api Access to the End-User Notifications API	1	1	1
End User Notifications Module Read Read access to the End-User Notifications shared service			
End User Notifications Module Write Write access to the End-User Notifications shared services			
End User Notifications Operator Module Write Write access to a subset of the End-User Notifications shared services			
¹ Denotes a provided permission.			

Table 3: Provided End-User Notifications Micro Admin and Advanced user role permissions

Permission	Role Type	Content Set for Permission	End-User Notifications Administrator	End-User Notifications Operator	End-User Notifications Read Only User
Read User	Micro Admin				
Read User Group	Micro Admin				
Read Computer Group	Micro Admin				
Ask Dynamic Questions	Advanced				
Read Sensor	Advanced	Reserved			
Read Sensor	Advanced	Default			
Read Sensor	Advanced	Base			
Read Sensor	Advanced	End-User Notifications			
Approve Action	Advanced	End-User Notifications			
Execute Plugin	Advanced	End-User Notifications			
Write Action	Advanced	End-User Notifications			
Write Package	Advanced	End-User Notifications			
Write Saved Question	Advanced	End-User Notifications			

For more information and descriptions of content sets and permissions, see [Tanium Core Platform User Guide: Users and user groups](#).

Installing End-User Notifications

Use the **Tanium Solutions** page to install End-User Notifications and choose either automatic or manual configuration:

- **Automatic configuration with default settings** (Tanium Core Platform 7.4.2 or later only): End-User Notifications 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 End-User Notifications, see [Import and configure End-User Notifications with default settings on page 14](#).
- **Manual configuration with custom settings:** After installing End-User Notifications, you must manually configure required settings. Select this option only if End-User Notifications requires settings that differ from the recommended default settings. For more information, see [Import and configure End-User Notifications with custom settings on page 15](#).

Before you begin

- Read the [release notes](#).
- Review the [End-User Notifications requirements on page 9](#).
- If you are upgrading from a previous version, see [Upgrade End-User Notifications on page 15](#).

Import and configure End-User Notifications with default settings

When you import End-User Notifications with automatic configuration, the following default settings are configured:

- The End-User Notifications service account is set to the account that you used to import the module.
- The End-User Notifications action group is set to the computer group `ALL Computers`.
- The End-User Notifications tools are distributed to endpoints.
- A default End-User Notifications profile is created.

To import End-User Notifications 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. For more information, see [Verify End-User Notifications version on page 15](#).

Import and configure End-User Notifications with custom settings

To import End-User Notifications 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. For more information, see [Verify End-User Notifications version on page 15](#).

To configure the service account, see [Configure service account on page 16](#).

To configure the End-User Notifications action group, see [Configure End-User Notifications action group on page 16](#).

To customize notifications, see [Customize notifications on page 16](#).

Upgrade End-User Notifications

For the steps to upgrade End-User Notifications, see [Tanium Console User Guide: Manage Tanium modules](#). After the upgrade, verify that the correct version is installed. For more information, see [Verify End-User Notifications version on page 15](#).

Verify End-User Notifications version

After you import or upgrade End-User Notifications, verify that the correct version is installed:

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

Configuring End-User Notifications

If you did not install End-User Notifications with the **Apply Tanium recommended configurations** option, you must enable and configure certain features.

Configure End-User Notifications

Configure service account

The service account is a user that runs background processes for End-User Notifications. This user requires the **Content Administrator** and **End-User Notifications Administrator** roles or the **Tanium Administrator** role.

For more information about End-User Notifications permissions, see [User role requirements on page 12](#).

1. On the End-User Notifications **Home** page, click **Settings** and open the **Service Account** tab.
2. Update the service account settings and click **Submit**.

Configure End-User Notifications action group

1. From the Main menu, go to **Administration > Actions > Scheduled Actions**.
2. In the list of action groups, click **Tanium End-User Notifications**.
3. Click **Edit**, select computer groups to include in the action group, and click **Save**.

Customize notifications

Add a company logo and relevant information to personalize the End-User Self-Service experience.

You must create at least one End-User Notifications profile. For more information about creating a profile, see [Create a profile on page 18](#).

Initialize endpoints

End-User Notifications installs a set of tools on each endpoint that you have targeted. Initializing the endpoints starts the End-User Notifications service and starts the End-User Notifications process on every endpoint where it is not running.

1. On the End-User Notifications **Overview** page, click **Help** , and then click **Support** if needed.
2. Click **Initialize Endpoints** and confirm your action.

Note: After deploying the tools for the first time, endpoints can take up to four hours to display status.

Customizing the end-user interface

To customize the End-User Self Service interface to use with Deploy, create additional End-User Notifications profiles. Each profile defines a set of configurations, rules, or parameters that applies to one or more computer groups.

Create a profile

1. From the End-User Notifications menu, click **Profiles** and then click **Create Profile**.
2. Provide a name and optional description.
3. Select target computers.

Note: Only one profile can apply to an endpoint.

4. Provide a title and upload a logo file.
5. (Optional) Select **Enable End-User Self Service**.
 - a. Provide a welcome message to display in the self-service dashboard on endpoints.
 - b. Select installation options.
6. (Optional) Select **Enable Additional Languages**.
 - a. Select a language and provide a translated title and welcome message.
 - b. (Optional) Click **Add Language** to add more languages.

Note: By default, the Self Service Client application displays content in the system language on the endpoints. If you enable additional languages, the user can select other languages to display.

7. Click **Submit**.

After you customize the End-User Self Service interface, you can create a self service profile in Deploy. For more information, see [Tanium Deploy User Guide: Using the Self Service Client application](#).

Prioritize profiles

If you have more than one profile, you can prioritize them.

1. From the End-User Notifications menu, click **Profiles** and then click **Prioritize**.
2. Drag and drop a profile to reprioritize it. End-User Notifications automatically adjusts the priority numbers for the other profiles and reorders the list by priority.
3. Click **Confirm**.

View, edit, or delete profiles

To view profiles, click **Profiles** from the End-User Notifications menu. You can also view them from the **Profiles** section of the End-User Notifications **Home** page.

To edit a profile, click the name of the profile.

To delete a profile, select a profile and click **Delete**.

Troubleshooting End-User Notifications

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

Collect logs

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

1. From the End-User Notifications **Home** page, click **Help**, then the **Support** tab.
2. Click **Collect**.
3. When **Status** indicates that the package is collected, click **Download**.
4. Contact Tanium Support to determine the best option to send the ZIP file. For more information, see [Contact Tanium Support on page 20](#).

End-User Notifications maintains logging information in the log file in the `\Program Files\Tanium\Tanium Module Server\services\end-user-notifications-files\logs` directory.

Problem: End user notifications are not displayed

If end user notifications are not being displayed on the endpoints:

1. Verify that the Tanium End-User Notifications solution is installed. For more information, see [Installing End-User Notifications on page 14](#).
2. Verify that endpoints have the end user notification tools by asking the question `End-User Notifications - Has Tools`.
3. Verify that any security software exclusions include the `\Tanium\Tanium End User Notification Tools` directory. For more information, see [Security exclusions on page 11](#).

Uninstall End-User Notifications

1. From the Main menu, go to **Administration > Configuration > Solutions**.
2. In the **Content** section, select the **End-User Notifications** row.
3. Click **Delete Selected** and then click **Uninstall** to complete the process.

Contact Tanium Support

To contact Tanium Support for help, send an email to support@tanium.com.