



# Tanium™ Deploy User Guide

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# Deploy overview

Deploy is a software management module that you can use to rapidly install, update, and remove software across large organizations with minimal infrastructure requirements. You can create deployments to run during a maintenance window that is convenient for your IT operations.

You can deploy applications or a group of applications to a flexible set of targets, including computer groups, user groups, departments, locations, individual computers, and individual users. You can also update existing software installation to the latest available versions, and create custom packages to install, update, and remove applications.

## Deployment packages

A Tanium Deploy *software package* is a combination of source files, metadata, detection logic, and actions that are used to detect, install, update, and remove software from Tanium managed devices.

Each software package contains the following elements:

### **Package Files (install/source files)**

The files needed to silently install an application on a managed device. This includes, but is not limited to, MSI/EXE installer, resource files/folders, configuration files, custom scripts, custom registry files, license keys.

### **General Information**

The vendor, name, version, and operating system of the software package. This information is derived automatically from source files, when available.

### **System Requirements**

The minimum requirements for this software package to run on the endpoint: minimum operating system and version, minimum disk space, and minimum RAM for the system.

### **Requirements (prerequisites)**



The list of detection rules that are associated with prerequisite software packages. Each prerequisite software package has one or more rules associated with it.

### **Update Detection**

The list of detection rules that are associated with previous versions of this software package. This list determines what previous software installations can be updated by this package.

### **Operation Type**

Each software package has a number of supported operations. Each package has an installation and uninstallation operation type, and has the ability to add named custom operations to the software package.

### **Install Verification**

The list of detection rules to determine whether the package installation was complete/successful.

## **Deployment bundles**

A Tanium Deploy *software bundle* is a list of Deploy software packages that can be deployed and executed in an ordered sequence. Software bundles are used to deploy a list of packages that are used by specific departments or user types.

For more information, see [Managing packages and bundles on page 32](#).

## **Deployment packages gallery**

The Tanium Deploy *packages gallery* is a collection of software packages that you can use to distribute software package templates. These templates include all of the required information for you to import and deploy third-party software.

The supported applications for Windows include:

- 7-Zip (32/64-bit) - latest version
- Adobe Acrobat DC (Update only) - latest version
- Adobe Acrobat Reader DC - latest version
- Adobe AIR - latest version
- Adobe Digital Editions - latest version

- Adobe Flash Player (ActiveX/NPAPI/PPAPI) - latest version
- Adobe Shockwave EOL (Remove only)
- Box Drive (32/64-bit) - latest version
- code4ward GmbH Royal TS - latest version
- DB Browser for SQLite (32/64-bit) - latest version
- Dropbox - latest version
- FileZilla (32/64-bit) - latest version
- Google Android Studio - latest version
- Google Chrome Enterprise (32/64-bit) - latest version
- Google Drive File Stream - latest version
- Microsoft Power BI Desktop (32/64-bit) - latest version
- Microsoft Silverlight (32/64-bit) - latest version
- Microsoft Skype Desktop Client (32-bit) - latest version
- Microsoft Visual Studio Code (32/64-bit) - latest version
- Microsoft Windows 10 Upgrade (32/64-bit) - 1803, 1809, 1903, 1909
- Mozilla Firefox (32/64-bit) - latest version
- Mozilla Firefox ESR (32/64-bit) - latest version
- NodeJS Current (32/64-bit) - latest version
- NodeJS LTS (32/64-bit) - latest version
- Notepad++ (32/64-bit) - latest version
- Oracle Java 8 Runtime (32/64-bit) - latest version
- Oracle MySQL Community - latest version
- PuTTY - latest version
- VideoLAN VLC Media Player (32/64-bit) - latest version
- VMware Workstation Player (Update and Remove only) - latest version
- Wireshark (32/64-bit) - latest version
- Zoom - latest version
- Zoom Outlook Plugin - latest version

The following Audit only software package templates are used for auditing and reporting purposes. No source files or commands are distributed for these packages, but there is logic to determine if the software is installed or out of date.

- Adobe After Effects CC - latest version
- Adobe Animate CC - latest version
- Adobe Audition CC - latest version
- Adobe Dreamweaver CC - latest version
- Adobe Illustrator CC - latest version
- Adobe InDesign CC - latest version
- Adobe Photoshop CC - latest version
- Adobe Prelude CC - latest version
- Adobe Premiere Pro CC - latest version

For more information, see [Managing the packages gallery on page 40](#).

## Applicability scans

You can configure how often applicability scans run for the software packages that are in the Deploy software package catalog, and how frequently the applicability status cache is updated.

Applicability scans evaluate endpoints against the required operating system, minimum disk space, memory, and requirements. Each software package is evaluated on a routine basis to determine if a Tanium managed device is eligible to install, is eligible for update, installed, or has failed requirements.

### **Install Eligible**

The count of systems where the software is not installed and system requirements are met.

### **Update Eligible**

The count of systems where one or more of the previous versions of the application are detected, and the software package can update those systems.

### **Installed**

The count of systems where the software package is already installed.

### **Update Ineligible**

The count of systems where one or more of the previous versions of the application are detected, but the system requirements are not met.

### **Not Applicable**

The count of systems where the system requirements or prerequisites are not met.

## **Deployments**

A deployment is a one-time or recurring action to install, update, or remove applications on targeted endpoints. For more information, see [Deploying packages and bundles on page 42](#).

## **Maintenance windows**

Maintenance windows designate the permitted times that the targeted computer groups are open for deployments to run. You can have multiple maintenance windows, even with overlapping times. Maintenance windows do not interfere with each other. For a deployment to take effect, the deployment and maintenance window times must be met. For more information, see [Managing maintenance windows on page 55](#).

## **Self service profiles**

With the Self Service Client application, you can publish software to Windows endpoints so that users can install software on their own without the need for IT to install for them. Deploy self service profiles and the Self Service Client application are used in conjunction with End-User Notification profiles in Tanium™ End-User Notifications 1.5 or later. For more information, see [Using the Self Service Client application on page 58](#).

## **Integration with other Tanium products**

Deploy integrates with other Tanium products to provide additional features and reporting.

### **End-User Notifications**

Deploy uses Tanium End-User Notifications to notify users about deployments to Windows endpoints, and to configure End-User Self Service capabilities. You can create a 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 [Windows endpoint restarts on page 47](#).

## Trends

Deploy has built in integration with Tanium™ Trends to provide data visualization. The **Deploy** board displays metrics related to software deployment, including machines running Deploy and gallery packages that are installed. The following panels are in the **Deploy** board:

- Endpoints Running Deploy
- Endpoints Running Deploy - Online Only
- Top 25 Gallery Packages Installed
- Top 25 Gallery Package Updates Needed

For more information about how to import the Trends board that is provided by Deploy, see [Tanium Trends User Guide: Importing the initial gallery](#).

# Getting started

1. Install and configure Tanium Deploy. For more information, see [Installing Deploy on page 28](#).
2. Create a software package. For more information, see [Managing packages and bundles on page 32](#).
3. Create a deployment. For more information, see [Deploying packages and bundles on page 42](#) and [Managing maintenance windows on page 55](#).
4. Configure the Self Service Client application. For more information, see [Using the Self Service Client application on page 58](#).

# Requirements

Review the requirements before you install and use Deploy.

## Tanium dependencies

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

Component	Requirement
Tanium Core Platform	7.2.314.3019 or later Installing Tanium™ Interact is also suggested.
Tanium Client	6.0.314.1540 or later. <ul style="list-style-type: none"><li>All supported Windows operating systems</li></ul> 7.2.314.3476 or later. <ul style="list-style-type: none"><li>All supported operating systems</li></ul> 7.4 or later. <ul style="list-style-type: none"><li>All supported operating systems</li><li>Requires Deploy 1.4.2 or later</li></ul> For more information about supported operating systems, see <a href="#">Supported operating systems on page 18</a> .
Tanium products	If you clicked <b>Install with Recommended Configurations</b> when you installed Deploy, the Tanium Server automatically installed all your licensed modules at the same time. Otherwise, you must manually install the modules that Deploy requires to function, as described under <a href="#">Tanium Console User Guide: Manage Tanium modules</a> . Modules at the following minimum versions are required: <ul style="list-style-type: none"><li>Tanium End-User Notifications 1.6.5 or later</li></ul> The following modules are optional, but Deploy requires the specified minimum versions to work with them: <ul style="list-style-type: none"><li>Tanium Trends 2.4.4 or later</li></ul>

Component	Requirement
Computer groups	When you first log into the Tanium Console after installing the Tanium Server, the server automatically imports the computer groups that Deploy requires: <b>All Computers</b> .

## Tanium Server and Module Server

Deploy 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.

The Tanium Server requires access to the following websites to download binaries for the packages gallery templates.

Software Package	Domain	Port
7-zip	7-zip.org	443
Adobe Acrobat DC <sup>1</sup>	download.adobe.com	443
Adobe Acrobat Reader DC	download.adobe.com	443
Adobe AIR	download.macromedia.com	443
Adobe Digital Editions	adedownload.adobe.com	443
Adobe Flash Player	fpdownload.macromedia.com	443
Adobe Shockwave EOL <sup>2</sup>	fpdownload.macromedia.com	443
Box Drive	e3.boxcdn.net	443
Citrix Workspace (formerly Citrix Receiver)	downloadplugins.citrix.com	443
code4ward GmbH Royal TS	download.royalapplications.com	443
DB Browser for SQLite	sqlitebrowser.org	443
Dropbox	clientupdates.dropboxstatic.com	443
FileZilla	download.filezilla-project.org	443
Google Android Studio	dl.google.com	443
Google Chrome	dl.google.com	443
Google Drive File Stream	dl.google.com	443



Software Package	Domain	Port
Microsoft Power BI Desktop	downloads.microsoft.com	443
Microsoft Silverlight	go.microsoft.com	443
Microsoft Skype Desktop Client	*.azureedge.net	443
Microsoft Visual Studio Code	code.visualstudio.com	443
Microsoft Windows 10 Upgrade <sup>3</sup>	content.tanium.com	443
Mozilla Firefox	releases.mozilla.org	443
NodeJS	nodejs.org	443
Notepad++	github.com	443
Oracle Java Runtime	javadl.oracle.com	443
	sdlc-esd.oracle.com	
Oracle MySQL Community	dev.mysql.com	443
PuTTY	the.earth.li	443
VideoLAN VLC Media Player	download.videolan.org	443
VMware Workstation Player <sup>4</sup>	download3.vmware.com	443
Wireshark	2.na.dl.wireshark.org	443
Zoom	d11yldzmag5yn.cloudfront.net	443
Zoom Outlook Plugin	zoom.us	443

<sup>1</sup> Update operation only.

<sup>2</sup> Remove operation only.

<sup>3</sup> Windows 10 Operating System media is not included in this package gallery template. For more information, see [Tanium Community: How to execute a Windows 10 upgrade with Tanium Deploy: Setup](#).

<sup>4</sup> Update and Remove operations only.

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

## Endpoints

Contact your Technical Account Manager (TAM) for customized tuning to your environment. For more information, see [Tanium Platform User Guide: Managing Global Settings](#).

**Table 1: Supported operating systems**

Operating System	Version	Notes
Windows Server	Windows Server 2008 R2 Service Pack 1 or later	Windows Server Core not supported for End-User Notifications functionality.
Windows Workstation	Windows 7 Service Pack 1 or later	
macOS	<ul style="list-style-type: none"><li>• macOS 10.15 Catalina</li><li>• macOS 10.14.6 Mojave</li><li>• macOS 10.13.6 High Sierra</li><li>• macOS 10.12 Sierra</li><li>• OS X 10.11 El Capitan</li><li>• OS X 10.10 Yosemite</li></ul>	
Linux	<ul style="list-style-type: none"><li>• Amazon Linux 1 or later</li><li>• Oracle Enterprise Linux 6 or later</li><li>• Red Hat Enterprise Linux (RHEL) 6 or later</li><li>• CentOS 6 or later</li></ul>	

## Windows System environment variables

The use of environment variables when you refer to file paths in Deploy is recommended over the use of explicit file paths. This method provides independence from differing paths based on operating system language or architecture, and allows the construction of a dynamic path at the time of execution.

Process Architecture	System Environment Variable	Path
32-bit process on 32-bit Windows	%PROGRAMFILES%	C:\Program Files
	%COMMONPROGRAMFILES%	C:\Program Files\Common Files

Process Architecture	System Environment Variable	Path
32-bit process on 64-bit Windows	%PROGRAMFILES%	C:\Program Files (x86)
	%PROGRAMFILESX86%	C:\Program Files (x86)
	%COMMONPROGRAMFILES%	C:\Program Files (x86)\Common Files
	%COMMONPROGRAMFILES(X86)%	C:\Program Files (x86)\Common Files
	%COMMONPROGRAMW6432%	C:\Program Files\Common Files
	%PROGRAMW6432%	C:\Program Files

**Note:** Additional environment variables that are available to the System account, such as %SystemDrive%, %SystemRoot%, %WinDir%, are also supported.

## Host and network security requirements

Specific ports and processes are needed to run Deploy.

### Ports

The following ports are required for Deploy communication.

Source	Destination	Port	Protocol	Purpose
Module Server	Module Server (loopback)	17463	TCP	Internal purposes; not externally accessible

### 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 2: Deploy security exclusions**

Target device	Notes	Process
Module Server		<Module Server>\services\deploy-service\node.exe
Windows endpoints	Required only for the Microsoft Windows 10 Upgrade packages	C:\Deploy\tanium\*
		<Tanium Client>\Python27\TPython.exe
		7.4.x clients <Tanium Client>\Python38\TPython.exe
		7.4.x clients <Tanium Client>\Python38\*.dll
		<Tanium Client>\Tools\Deploy\7za.exe
		<Tanium Client>\Tools\SoftwareManagement\7za.exe
		<Tanium Client>\TaniumCX.exe
Linux endpoints		<Tanium Client>/python27/bin/pybin
	7.2.x clients	<Tanium Client>/python27/pybin
	7.4.x clients	<Tanium Client>/python38/python
		<Tanium Client>/TaniumCX
macOS endpoints		<Tanium Client>/python27/bin/pybin
	7.2.x clients	<Tanium Client>/python27/pybin
	7.4.x clients	<Tanium Client>/python38/python
		<Tanium Client>/TaniumCX

## User role requirements

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

**Table 3: Deploy user role permissions**

Permission	Deploy Administrator	Deploy Operator	Deploy Service Account	Deploy Package Administrator	Deploy User	Deploy Read Only User
<b>Show Deploy</b> View the Deploy workbench	✓ <sup>1</sup>	✓ <sup>1</sup>	✓ <sup>1</sup>	✓ <sup>1</sup>	✓ <sup>1</sup>	✓ <sup>1</sup>
<b>Deploy Use Api</b> Perform Deploy operations using the API	✓ <sup>1</sup>	✓ <sup>1</sup>	✓ <sup>1</sup>	✓ <sup>1</sup>	✓ <sup>1</sup>	✓ <sup>1</sup>
<b>Deploy Module Read</b> Read access to the Deploy module	✓	✓	✓	✓	✓	✓
<b>Deploy Module Write</b> Write access to the Deploy module	✓	✓	✓	✓	✓	✗
<b>Deploy Settings Write</b> Write access to global settings in the Deploy module	✓	✗	✓	✗	✗	✗

Permission	Deploy Administrator	Deploy Operator	Deploy Service Account	Deploy Package Administrator	Deploy User	Deploy Read Only User
<b>Deploy Deployments Write</b> Create and modify deployments	✓	✓	✓	✗	✓	✗
<b>Deploy Maintenance Windows Write</b> Create, modify, and delete maintenance windows	✓	✓	✓	✗	✓	✗
<b>Deploy Profiles Write</b> Create, modify, and delete self service profiles	✓	✓	✓	✗	✓	✗
<b>Deploy Operator Settings Write</b> Write access to a subset of global settings in the Deploy module	✓ <sup>1</sup>	✓	✓ <sup>1</sup>	✗	✗	✗

Permission	Deploy Administrator	Deploy Operator	Deploy Service Account	Deploy Package Administrator	Deploy User	Deploy Read Only User
<p><b>Trends Integration Service Account<sup>2</sup></b></p> <p>Access for Deploy service accounts to read and write data, and to define sources and boards for Deploy content set</p>	✘	✘	✔	✘	✘	✘
<p><b>Trends Api Board Read<sup>2</sup></b></p> <p>View boards, sections, and panels for Deploy content set</p>	✔	✔	✔ <sup>1</sup>	✔	✔	✔

Permission	Deploy Administrator	Deploy Operator	Deploy Service Account	Deploy Package Administrator	Deploy User	Deploy Read Only User
<b>Trends Api Board Write<sup>2</sup></b> Create, edit, delete, and configure boards, sections, and panels for Deploy content sets			 <sup>1</sup>			
<b>Trends Api Source Read<sup>2</sup></b> View and list sources for Deploy content set			 <sup>1</sup>			
<b>Trends Api Source Write<sup>2</sup></b> Create, edit, and delete sources for Deploy content set			 <sup>1</sup>			
<b>Trends Data Read<sup>2</sup></b> Run data queries against sources for Deploy content set			 <sup>1</sup>			



Permission	Deploy Administrator	Deploy Operator	Deploy Service Account	Deploy Package Administrator	Deploy User	Deploy Read Only User
<b>Trends Import<sup>2</sup></b> Import from file or gallery	✘	✘	✔ <sup>1</sup>	✘	✘	✘
<sup>1</sup> Denotes a provided permission. <sup>2</sup> Denotes a permission when Trends 2.4.4 or later is installed.						

**Table 4: Provided Deploy Micro Admin and Advanced user role permissions**

Permission	Role Type	Content Set for Permission	Deploy Administrator	Deploy Operator	Deploy Service Account	Deploy Package Administrator	Deploy User	Deploy 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	✔	✔	✔	✔	✔	✔

Permission	Role Type	Content Set for Permission	Deploy Administrator	Deploy Operator	Deploy Service Account	Deploy Package Administrator	Deploy User	Deploy Read Only User
Read Sensor	Advanced	Deploy Content Set	✓	✓	✓	✓	✓	✓
Read Action	Advanced	Deploy Content Set	✓	✓	✓	✓	✓	✓
Read Action <sup>1</sup>	Advanced	End-User Notifications	✓	✓	✓	✓	✓	✓
Write Action	Advanced	Deploy Content Set	✓	✓	✓	✓	✓	✗
Write Action <sup>1</sup>	Advanced	End-User Notifications	✓	✓	✓	✗	✗	✗
Approve Action	Advanced	Deploy Content Set	✓	✓	✓	✓	✓	✗
Execute Plugin	Advanced	Deploy Content Set	✓	✓	✓	✓	✓	✓
Execute Plugin <sup>2</sup>	Advanced	Trends	✓	✓	✓	✓	✓	✓
Read Package	Advanced	Deploy Content Set	✓	✓	✓	✓	✓	✓
Read Package <sup>1</sup>	Advanced	End-User Notifications	✓	✓	✓	✓	✓	✓

Permission	Role Type	Content Set for Permission	Deploy Administrator	Deploy Operator	Deploy Service Account	Deploy Package Administrator	Deploy User	Deploy Read Only User
Write Package	Advanced	Deploy Content Set	✓	✓	✓	✓	✓	✗
Read Saved Question	Advanced	Deploy Content Set	✓	✓	✓	✓	✓	✓
Read Saved Question <sup>1</sup>	Advanced	End-User Notifications	✓	✓	✓	✓	✓	✓
Write Saved Question	Advanced	Deploy Content Set	✓	✓	✓	✓	✓	✗
Write Saved Question <sup>1</sup>	Advanced	End-User Notifications	✓	✓	✓	✗	✗	✗

<sup>1</sup> Denotes a provided permission when the Tanium End-User Notifications shared service is installed.

<sup>2</sup> Denotes a provided permission when Tanium Trends 2.4.4 or later is installed.

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

# Installing Deploy

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

- **Automatic configuration with default settings** (Tanium Core Platform 7.4.2 or later only): Deploy 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 Deploy, see [Import and configure Deploy with default settings on page 28](#).
- **Manual configuration with custom settings** After installing Deploy, you must manually configure required settings. Select this option only if Deploy requires settings that differ from the recommended default settings. For more information, see [Import and configure Deploy with custom settings on page 29](#).

## Before you begin

- Read the [release notes](#).
- Review the [Requirements on page 15](#).
- If you are upgrading from a previous version, see [Upgrade Deploy on page 30](#).

## Import and configure Deploy with default settings

When you import Deploy with automatic configuration, the following default settings are configured:

- The Deploy service account is set to the account that you used to import the module.
- Computer groups that Deploy requires are imported.
- The Deploy action group is set to the `All Computers` computer group.
- For action locked machines, only applicability scanning is enabled, so that deployments cannot run on action locked machines.
- An `Always On` maintenance window is created, and enforced against the `All Computers` computer group.

To import Deploy 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 Deploy version on page 30](#).

## Import and configure Deploy with custom settings

To import Deploy 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 Deploy version on page 30](#).

### Configure service account

The service account is a user that runs several background processes for Deploy. This user requires the **Content Administrator**, **Deploy Service Account**, and **End-User Notifications Read Only User** roles, or the **Tanium Administrator** role.

For more information about Deploy permissions, see [User role requirements on page 20](#).

### Organize computer groups

One way to deploy packages or bundles is by computer group. Create relevant computer groups to organize your endpoints. Some options include:

- Endpoint type, such as servers or employee workstations
- Endpoint location, such as by country or time zone
- Endpoint priority, such as business-critical machines

For more information, see [Tanium Core Platform User Guide: Managing computer groups](#).

### Add computer groups to Deploy action group

Importing the Deploy module automatically creates an action group to target specific endpoints. Select the computer groups to include in the Deploy action group. By default, Deploy targets No Computers.

1. From the Deploy **Home** page, in the **Configure Deploy** section, click **Configure Action Group**.

**Note:** If the **Configure Deploy** section is not visible on the Deploy **Home** page, click **Manage Home Page**, select **Configure Deploy**, and click **Save**.


2. Select the computer groups that you want to include in the action group. If you select multiple computer groups, choose an operand (AND or OR) to combine the groups.
3. (Optional) In the **All machines currently included in this action group** section, review the included endpoints.

**Note:** These results might take a few moments to populate.

4. Click **Save**.

## Initialize Deploy endpoints

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

1. From the Deploy **Home** page, click Help , and then click the **Support** tab 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.

## Install Tanium End-User Notifications

With the Tanium End-User Notifications solution, you can create a notification message with your deployment to Windows endpoints 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 End-User Notifications User Guide: End-User Notifications overview](#).

## Upgrade Deploy

For the steps to upgrade Deploy, see [Tanium Console User Guide: Manage Tanium modules](#). After the upgrade, verify that the correct version is installed: see [Verify Deploy version on page 30](#).

## Verify Deploy version

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

1. Refresh your browser.
2. From the Main menu, go to **Modules > Deploy** to open the Deploy **Home** page.
3. To display version information, click Info .

## What to do next

See [Getting started on page 14](#) for more information about using Deploy.

# Managing packages and bundles

Use software *packages* to install, update, or remove software on a set of target computers. Use software *bundles* to specify a sequenced list of software packages to deploy.

## Before you begin

For applicability checks and command-line operations, make sure that all endpoints have the required system environment variables defined. For more information, see [Windows System environment variables on page 18](#).

## Create a software package

1. From the Deploy menu, click **Software** and then click **New Software Package**.

**Tip:** You can also click **New Software Package** from the **Software Packages** tab of the **Software** section in the Deploy **Home** page.

2. In the **Package Files** section, click **Add** to add a local file, remote file, or remote folder.

These are the files that are needed to silently install an application on a managed device. They include, but are not limited to, msi or exe installers, resource files or folders, package files, configuration files, custom scripts, custom registry files, or license keys.

**IMPORTANT:** If you select a remote file or remote folder, ensure that the Tanium Module Server service account can access the remote location and has sufficient permissions.

- Windows Module Servers: Use a domain-joined account for seamless access to remote shares.
- Appliance Module Servers: Add an authentication user. For more information, see [Tanium Appliance Deployment Guide: Add an authentication user for TDownloader](#).

3. In the **General Information** section, provide the general information, click **Upload Icon** to upload an icon, and select the OS platform.



**Tip:**

- If the package files include one or more Windows Installer packages (MSI file format), you can click **Inspect** to extract the general information from the `.msi` file and verify the pre-populated information. Clicking **Inspect** does not overwrite any information that you previously entered manually.
- The account that is set for the Deploy service account must have access to execute PowerShell on the Tanium Module Server.

4. In the **Deploy Operations** section, select Deploy operations: **Install**, **Update**, or **Remove**.
5. In the **System Requirements** section, provide the minimum system requirements for the package to run on the endpoint.
6. In the **Requirements** section, add a list of detection rules for prerequisite software. (Windows) For more information, see [Variables for Windows applicability scans and command-line operations on page 34](#) and [WMI queries on page 35](#).
7. (Optional) If the Update operation is selected, add a list of detection rules for previous versions. (Windows) For more information, see [Variables for Windows applicability scans and command-line operations on page 34](#) and [WMI queries on page 35](#).
8. In the **Deploy Operation** section, add conditional commands for any of the Deploy operations that you enabled for this package. (Windows) For more information, see [Variables for Windows applicability scans and command-line operations on page 34](#).

**Check for Running Processes**

Specify a process name, for example, Chrome.exe, and choose whether to kill or pause the process.

**File/Folder**

Copy a file or folder, create a folder, delete a file or folder, extract a file or folder, or rename a file or folder. For file/folder actions, the source is the folder from which the package is running. If you specify a different folder, for example, `c:\temp`, specify the fully qualified path. The destination requires the fully qualified path. For more information, see [File/Folder actions on page 35](#).

**Run Command**

Specify an install, update, or remove command to run and choose whether to run the command as the **System** or the **Active User**. If any part of the path in a

command contains a space, use double quotation marks, even if you use variables.

### Tanium Client File Request

Specify an HTTP(S) address or a UNC file path and file name. Any URI that you enter must be whitelisted on the Tanium Server. For more information, see [Tanium Platform User Guide: Managing whitelisted URLs](#).

9. In the **Install Verification** section, add a list of detection rules for installation verification. For more information, see [Variables for Windows applicability scans and command-line operations on page 34](#) and [WMI queries on page 35](#).
10. Click **Create Package**. You can also click **Save and Finish Later** to finish creating the package later.

### Variables for Windows applicability scans and command-line operations

When you create a Windows software package, you can use `||PROGRAMFILES32BIT||`, `||PROGRAMFILES||`, `||ACTIVEUSERPROFILE||`, or `||ACTIVEUSERREGISTRY||` as variables for applicability scans and command-line operations. For the **Requirements**, **Update Detection**, and **Install Verification** sections, you can use these variables if you select the **Registry Path**, **Registry Data**, **File Path** or **File Version** filter fields.

Installer Architecture	Variable	Path
32-bit on 32-bit endpoint	<code>  PROGRAMFILES32BIT  </code>	Path to Program Files folder (example: C:\Program Files)
32-bit on 64-bit endpoint	<code>  PROGRAMFILES32BIT  </code>	C:\Program Files (x86)
64-bit on 32-bit endpoint	<code>  PROGRAMFILES  </code>	C:\Program Files
64-bit on 64-bit endpoint	<code>  PROGRAMFILES  </code>	C:\Program Files
Any	<code>  ACTIVEUSERPROFILE  </code>	Profile directory of the active authenticated user (example: C:\users\john.smith)

Installer Architecture	Variable	Path
Any	ACTIVEUSERREGISTRY	Registry hive of the active authenticated user  (example: HKEY_USERS\USER-SID\)

**IMPORTANT:** Use double quotation marks (") if any part of the path in a command contains a space, even if you use variables.

## WMI queries

You can use a Windows Management Instrumentation (WMI) query to query information from WMI classes for any of the detection rules within a software package. If you use a WMI query, you cannot query against the `Win32_Product` WMI class.

For more information, see [\[Microsoft Documentation\]: Win32\\_Product class](#).

## File/Folder actions

You can perform the following actions for files and folders.

**IMPORTANT:** Do not use quotation marks in the folder path or file name in File/Folder actions.

### Copy

Specify the fully qualified path and file name. If the destination is a folder, Deploy copies the source to the destination folder; it does not replace an existing folder. For example, a command to copy `firefox.app` to `/Applications/firefox.app` with `overwrite` enabled produces the following results, depending on whether `/Applications/firefox.app` is an existing folder: If not, Deploy creates `/Applications/firefox.app`; if so, Deploy creates `/Applications/firefox.app/firefox.app`. To always replace `/Applications/firefox.app`, set the destination to `/Applications` instead of `/Applications/firefox.app`.

### Create

Creates a folder. If you specify a parent folder path that does not exist, it is created. For example, `c:\temp\myfiles` creates `c:\temp` folder and `myfiles` subfolder.

### Delete

Any subfolders of the folder that you specify are also deleted.

### Extract


Supported file types for extracting a file are 7z, tar, zip, bzip2, gzip, xz, and Z. Specify an existing folder path or a folder path to create. For example, specify file `example.zip` and destination `c:\temp\myunzippedfile`.

### Rename

Specify the existing (source) and new (updated) fully qualified path and file names.

## Export a software package

You can export a software package so that you can later import the package on a different server or recreate a deleted package.

1. From the Deploy menu, click **Software**.
2. Click the name of your package and then click Export .

The ZIP file is available in your downloads folder.

## Import a software package

You can import a previously exported software package on a different server or recreate a deleted package.

1. From the Deploy menu, click **Software** and then click **Import Package**.


**Tip:** You can also click **Import Package** from the **Software Packages** tab of the **Software** section in the Deploy **Home** page.

2. Browse to the previously exported ZIP file and click **Import**.
3. Click **(Download File)** for any required files.
4. Click **Import** or **Import Duplicate** if you are importing a duplicate package.

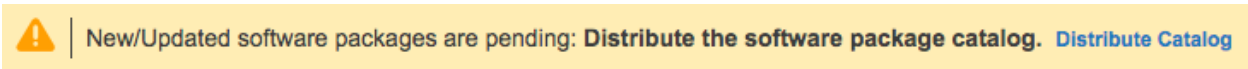
## Distribute the software package catalog

After you create or edit a software package, the updated software package catalog must be distributed to the endpoints. When the endpoints receive the updated software package catalog, you can view the package applicability.

New installations of Deploy automatically distribute the software package catalog to endpoints when changes are detected.

If you upgraded from Deploy 2.1.9 or earlier and want the software package catalog to be automatically distributed, you must enable the **Auto-Distribute Catalog** option in the **Configuration Settings** tab of the Deploy Settings . If you do not enable this option, you are prompted to distribute the software package catalog each time an update is detected, and must click **Distribute Catalog**.

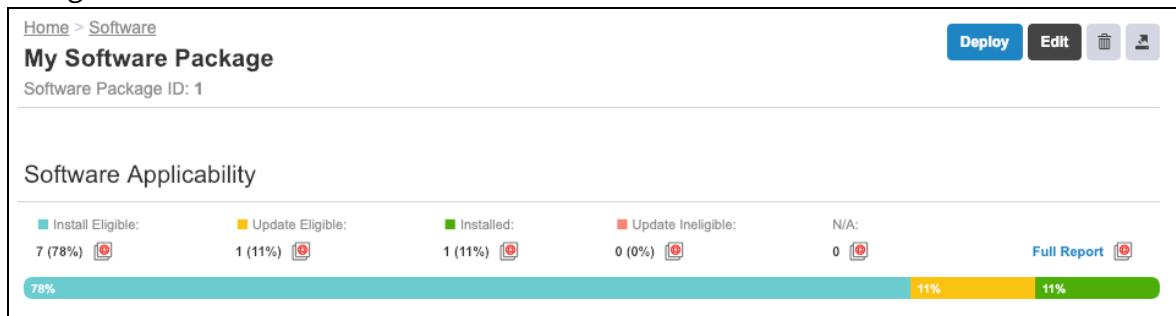
**Figure 1: Distribute software package catalog**



## View software package applicability

1. From the Deploy menu, click **Software**.

You can also view the software package applicability by additionally clicking your package name.



2. For more details about a specific applicability state, click **Interact** .

- To view the applicability details for the endpoints, click **Full Report**.

Home > Software > Software Package 1

### Software Package Applicability: My Software Package

[View Question in Interact](#)

Computer Group: Filter By Text: Contains Filter by Text

Advanced Filtering

Items: **9** (9 total)

Live Updates: On 100%

Deploy - Software Packages Applicability Details				
Computer Name ↑	Operating System	Applicability	Reasons	
<input type="checkbox"/> Client1	Windows 7 Enterprise	Install Eligible Install Eligible Install Eligible Install Eligible	Application name contains PuTTY and \ System requirements met Application name contains PuTTY and \ Registry path HKEY_LOCAL_MACHINE	
<input type="checkbox"/> Client2	Windows 7 Enterprise	Update Eligible Update Eligible Update Eligible Update Eligible	System requirements met Application name contains PuTTY and \ Application name contains PuTTY and \ Registry path HKEY_LOCAL_MACHINE	
<input type="checkbox"/> Client3	Windows 7 Enterprise	Install Eligible Install Eligible Install Eligible Install Eligible	Application name contains PuTTY and \ System requirements met Application name contains PuTTY and \ Registry path HKEY_LOCAL_MACHINE	
<input type="checkbox"/> Client4	Windows 7 Enterprise	Install Eligible Install Eligible Install Eligible Install Eligible	Application name contains PuTTY and \ System requirements met Application name contains PuTTY and \ Registry path HKEY_LOCAL_MACHINE	

## Create a software bundle

- From the Deploy menu, click **Software** and then click **Software Bundles**.

**Tip:** You can also click **Software Bundles** in the **Software** section of the Deploy **Home** page.

- Click **New Software Bundle**.
- In the **Software Bundle Details** section, specify the bundle name and description.
- In the **Add Software** section, select software options.
  - Select the software packages to add to the bundle.
  - Select a specific version, or choose **Latest Applicable Version** to automatically select the latest available version for each endpoint.
  - Select the deploy action: **Install**, **Update**, **Remove**, or **Install Or Update**.
  - Select whether you want the bundle to exit or continue or if the package fails.

**Tip:** You can change the order of the packages by dragging the package, or by clicking the arrows next to the package number.

5. Click **Create Bundle**.

## Edit a software package or bundle

To edit a package or bundle, click the name of your package or bundle and then click **Edit**.


When a software package or bundle is edited and saved, the version number of the package or bundle is incremented. All existing deployments continue to use the version that is specified at the time of deployment until the updated software package catalog is distributed.

## Copy a software package or bundle

To copy a package or bundle, click the name of your package or bundle and then click **Copy**.

When a software package or bundle is copied, the name is automatically prepended with **copy -**.

## Delete a software package or bundle

To delete a package or bundle, click the name of your package or bundle and then click Delete .

**Note:** You can delete a software package or bundle only if it is not referenced in an active deployment.

# Managing the packages gallery

The **Packages Gallery** tab of the **Software** page lists predefined software package templates that you can import. Use the software packages gallery to import third-party software package templates to install, update, or remove software on a set of target computers. You can also view the **Packages Gallery** from the **Software** section of the Deploy **Home** page.

**Note:** Tanium does not repackage or redistribute third-party software installers. The Tanium software package templates provide you with the remote file paths to directly download the software installer from the third-party vendor. You must review any applicable third-party End User Licensing Agreement (EULA) before you import third-party software to the Tanium software package catalog. Tanium is not responsible for accepting, nor does it accept, any EULAs from third-party software vendors on your behalf.

## Before you begin

For applicability checks and command line operations, make sure that all endpoints have the required system environment variables defined. For more information, see [Windows System environment variables on page 18](#).

## Import a software package from the packages gallery

1. From the Deploy menu, click **Software** and then click **Packages Gallery**.

**Tip:** You can also click **Packages Gallery** in the **Software** section of the Deploy **Home** page.

2. Click **Import** for the package you want to import.

**Tip:** To import multiple packages simultaneously, select the packages that you want to import and click **Import**.

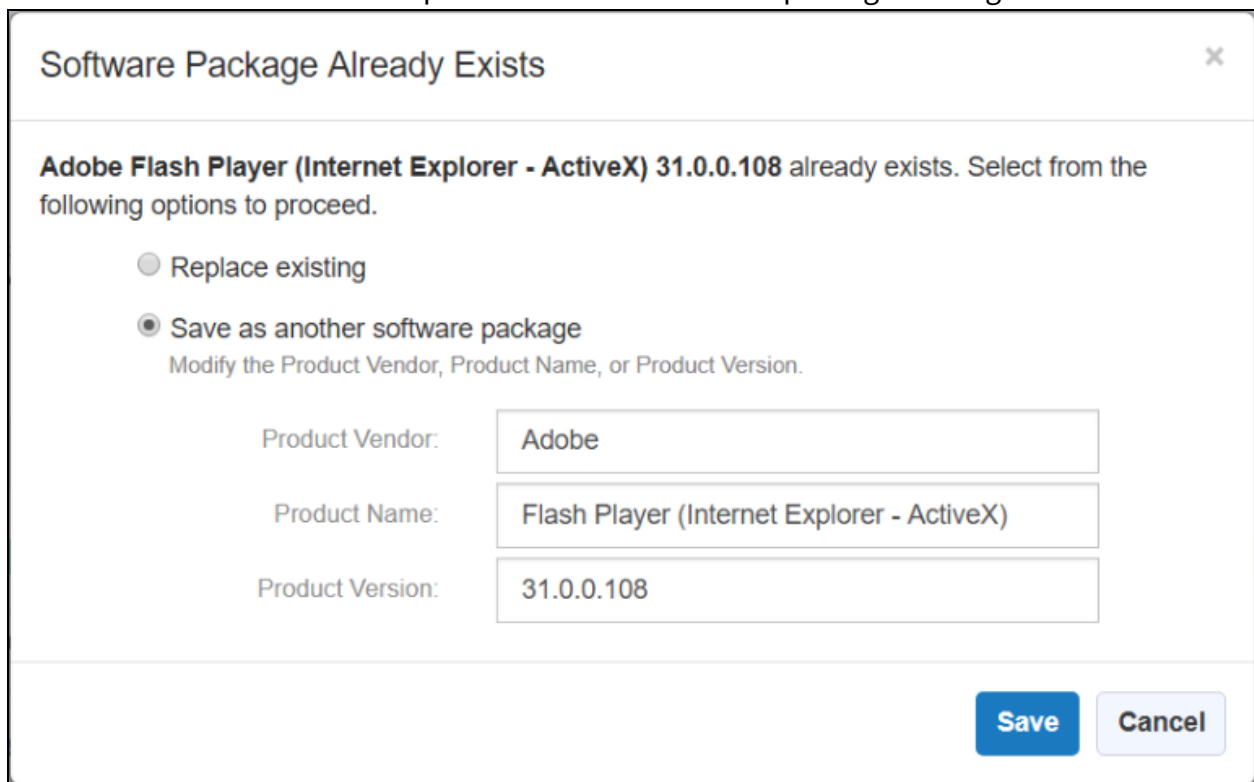
After you import a package from the packages gallery and distribute the catalog, you can deploy, edit, delete, or export the package.



**Tip:** If you import the Oracle Java 8 package and want to remove previous versions of Java, you can add `REMOVEOUTOFDATEJRES=1` to the end of the run command in the **Update Command** field of the software package.

## Replace or add a new package to the software package catalog

If a software package that is being imported already exists in the software package catalog, you are presented with two options prior to importing again. If you want to replace the existing package, select **Replace existing**. If you want to import the package, but also keep the existing one, select **Save as another software package**. You must then update at least one of the fields to create a unique record in the software package catalog.



The screenshot shows a dialog box titled "Software Package Already Exists" with a close button (X) in the top right corner. The main text reads: "Adobe Flash Player (Internet Explorer - ActiveX) 31.0.0.108 already exists. Select from the following options to proceed." Below this, there are two radio button options: "Replace existing" (unselected) and "Save as another software package" (selected). Under the selected option, there is a sub-instruction: "Modify the Product Vendor, Product Name, or Product Version." Below this are three input fields: "Product Vendor:" with the value "Adobe", "Product Name:" with the value "Flash Player (Internet Explorer - ActiveX)", and "Product Version:" with the value "31.0.0.108". At the bottom right, there are two buttons: "Save" (highlighted in blue) and "Cancel" (light blue).

# Deploying packages and bundles

## Overview

Use deployments to install, update, or uninstall software on a set of target computers. Deployments can run once or be ongoing to meet requirements such as:

- Maintain operational hygiene and system baselines.
- Manage systems which may be online for short periods.
- Rerun packages which become applicable as system states change.

**IMPORTANT:** Deployments do not run outside of a maintenance window unless the **Override maintenance window** option is selected in the deployment options. You must create at least one maintenance window for other deployments to run. For more information about creating a maintenance window, see [Managing maintenance windows on page 55](#).

## Before you begin

- To create a software package deployment, ensure that you have at least one software package. See [Create a software package on page 32](#) or [Import a software package on page 36](#).
- To create a software bundle deployment, ensure that you have at least one software bundle. See [Create a software bundle on page 38](#).
- If you want to notify the end users of your Windows endpoints about the start of deployments or restarts that occur after deployments, install the Tanium End-User Notification solution. See [Tanium End-User Notifications User Guide: Installing End-User Notifications](#) and [Windows endpoint restarts on page 47](#).

## Create a deployment template

You can create a deployment template to save settings for a deployment that you can issue repeatedly. You can either create a deployment template from the **Deployment Templates** menu item, or you can select an option when you create a deployment to save the options as a template.

1. From the Deploy menu, click **Deployment Templates**.
2. Click **Create Deployment Template**.

3. Specify a name and description for your deployment template.
4. Select deployment options. These options are the same as the options you can configure in an individual deployment.

**Best Practice:** For self service deployments that are set for the future, use the **Make Available Before Start Time** option.

5. Click **Create Deployment Template**.

You can use this template when you create a deployment.

## Create a software package deployment

1. From the Deploy menu, click **Software**.

**Tip:** You can also click **Software Packages** in the **Software** section of the Deploy **Home** page.

2. Click the name of your package and then click **Deploy**.
3. Provide the deployment details.
4. Select the software package operation.
5. Choose at least one target for the deployment.
6. Select deployment options.

- a. Choose whether you want to base this deployment on a deployment template. To create a new deployment template based on this template, select **Create Deployment Template**. For more information, see [Create a deployment template on page 42](#).

- b. Designate the deployment time.

You can choose from your browser time or local time on the endpoint.

- c. Specify a deployment type. You can either do a single deployment with a specific start and end time, or an ongoing deployment that does not have an end time.

- d. Select self service options.

**Best Practice:** For self service deployments that are set for the future, use the **Make Available Before Start Time** option.

- e. If you want the endpoints to download the deployment content before the installation time, select **Download immediately**.

**Best Practice:** Select this option for future deployments. Files for the package are downloaded immediately only if the package is applicable.

- f. (Windows endpoints) You can enable end user notifications about the deployments. Select **Notify User** in the **Pre-Notify User** section, and then configure the following settings.
- (Optional) Configure settings that allow the end user to postpone the start of the deployment.
  - Configure the **Message Content** that informs the user about the deployment.
  - (Optional) Select additional languages and provide translated title and body text for endpoints that are configured for other languages.

- To preview the window that displays the message and postponement options, click **Show Preview**.

**Pre-Notify User**

Notify User

Allow User to Postpone ?

Duration of Postponement:

User Postponement Options:

?

Countdown to deadline:

**Message Content** ? Show Preview

Title:

Title Icon:  Suggested size: 32x32px ?

Filename: --

Body:

Body Image:  Suggested size: 120x120px ?

Filename: --

Language Support:

Enable Additional Languages

**ES - Español** 🗑️

Title:

Body:

- g. To minimize concurrent CPU utilization and disk input/output, select **Distribute over time** and indicate the time.
- h. If you want to ignore deployment restrictions, select **Override maintenance windows**.
- i. Select whether to restart the endpoint. For more information, see [Windows endpoint restarts on page 47](#).
- j. (Windows endpoints) You can enable end-user notifications about the completion of a deployment with or without a restart. Select **Notify User** in the

**Post-Notify User** section. If you enabled endpoint restarts, you can then configure the following settings that allow the user to postpone the restart:

- Configure the **Message Content** that informs the user about the restart.
- (Optional) Select additional languages and provide translated title and body text for endpoints that are configured for other languages.
- To preview the window that displays the message and postponement options, click **Show Preview**.

The screenshot shows the 'Post-Notify User' configuration page. On the left is a sidebar with the title 'Post-Notify User'. The main content area has a 'Notify User' checkbox checked. Below it is an 'Allow User to Postpone' checkbox, also checked. There are three rows of controls for postponement: 'Duration of Postponement' (1 days), 'User Postponement Options' (1, 2, and 4 hours), and 'Countdown to deadline' (10 minutes). The 'Message Content' section includes fields for Title ('Restart Required'), Title Icon (with a 'Choose File' button and 'Suggested size: 32x32px'), Body ('IT needs to restart your system to deploy software.'), and Body Image (with a 'Choose File' button and 'Suggested size: 120x120px'). A 'Show Preview' link is in the top right of this section. The 'Language Support' section has an 'Enable Additional Languages' checkbox checked. It contains a list of languages, with 'ES - Español' selected. This language has its own Title ('Reinicio Requerido') and Body ('IT necesita reiniciar su sistema para implementar el software.') fields. An 'Add Language' button is at the bottom of the language list.

7. Click **Create Deployment**.

## Windows endpoint restarts

Deploy can trigger a restart of any Windows system after updates have been installed. You can choose between the following options for the restart:

- Restart silently and immediately after deployment. This option is typically used for servers and production machines in conjunction with maintenance windows and change control processes.
- (Windows endpoints) Notify the system user about the pending restart and give the system user the option to defer the restart for a specified amount of time. Configure the following options:

### Duration of Postponement

Specify the amount of time in minutes, hours, or days before the endpoint must be restarted. The deadline is calculated by adding this value to the time the deployment completed for each endpoint.

### Countdown to deadline

Specify the amount of time in minutes to show the final notification before restarting the endpoint. This notification also shows a countdown until restart. If this notification is dismissed, it will reappear after one minute. Set a low value because this option is meant to signal a forced restart that cannot be postponed.

### Allow User to Postpone

If you want to give the user an option to defer the restart for a specified amount of time, select this option. A user cannot postpone beyond the deadline.

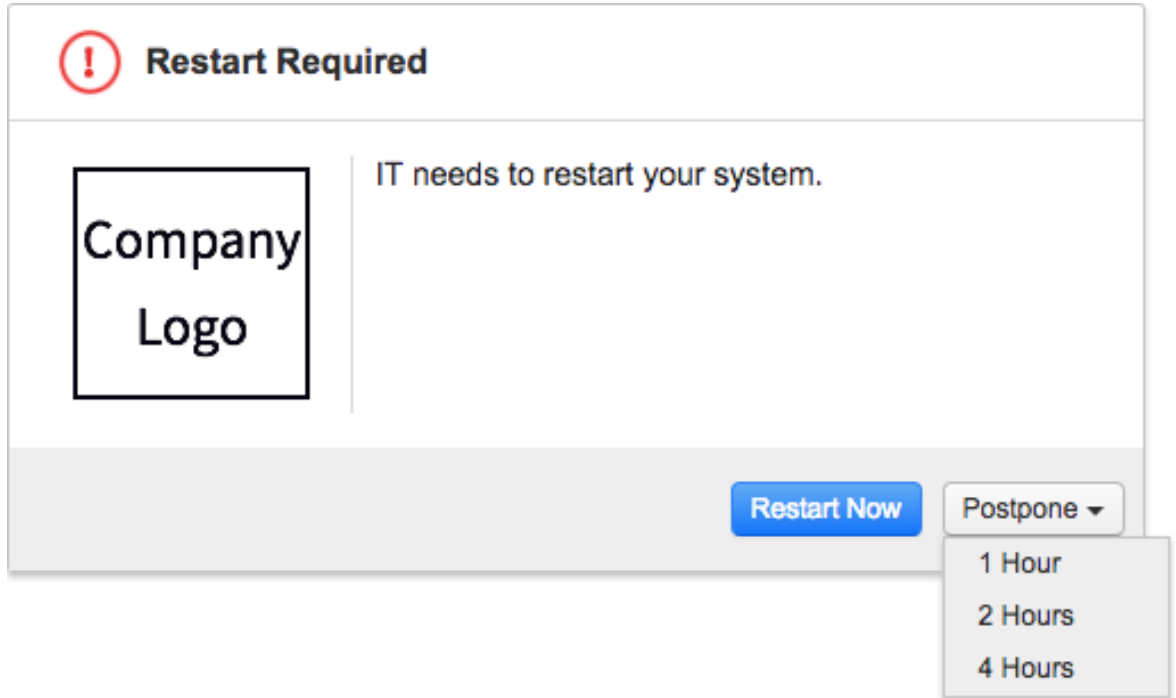
### User Postponement Options

Specify the amount of time in minutes, hours, or days that a user can postpone the restart.

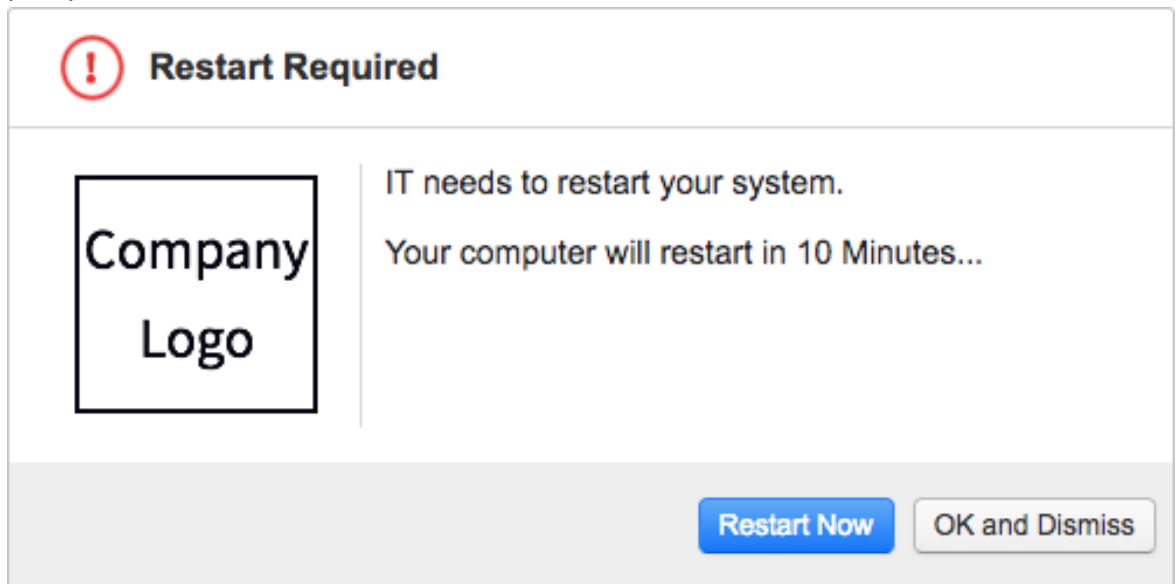
### Message Content

Specify the title and body of the notification message. You can use `||OPERATION||`, `||PACKAGENAME||`, or `||DEPLOYMENTNAME||` as variables in the title or body. If you are deploying a software bundle, the bundle name is used for the `||PACKAGENAME||` variable. Upload optional icon and body images for branding to avoid confusing users and to limit support calls. Enable additional languages and provide translated title and body text. Enabling additional

languages requires End-User Notifications 1.6 or later and Deploy 1.3 or later. By default, the notification displays content in the system language on the endpoints. If you enable additional languages, the user can select other languages to display. Click **Show Preview** to preview the notifications. This message is configurable, and might look like the following example:



After the deadline for restart passes, the user gets a message that they cannot postpone:





**Tip:** End user notifications can be added to existing deployments by stopping, reconfiguring, and reissuing the deployment.

**Note:** If no user is logged into an endpoint, the endpoint restarts immediately after a deployment completion even if the deployment is configured for a notification.

## Create a software bundle deployment

A software bundle is platform-specific and each software package evaluates and installs independently, but is available only for the specified OS platform. If an individual package fails to install during a bundle deployment, you can decide if the bundle should continue and install the remaining packages, or you can choose to stop on failure and report the failure.

1. From the Deploy menu, click **Software** and then click **Software Bundles**.

**Tip:** You can also click **Software Bundles** in the **Software** section of the Deploy **Home** page.

2. Click the name of your bundle and then click **Deploy**.
3. Provide the deployment details.
4. Verify the software bundle details.
5. Choose at least one target for the deployment.
6. Select deployment options.
  - a. Choose whether you want to base this deployment on a deployment template. To create a new deployment template based on this template, select **Create Deployment Template**. For more information, see [Create a deployment template on page 42](#).
  - b. Designate the deployment time. You can choose from your browser time or local time on the endpoint.
  - c. Specify a deployment type. You can either do a single deployment with a specific start and end time, or an ongoing deployment that does not have an end time.
  - d. Select self service options.

**Best Practice:** For self service deployments that are set for the future, use the **Make Available Before Start Time** option.

- e. If you want the endpoints to download the deployment content before the installation time, select **Download immediately**.

**Note:** Files for all packages in the bundle are downloaded immediately. Applicability for each package is not checked until the deployment start time.

- f. (Windows endpoints) You can enable end user notifications about the deployments. Select **Notify User** in the **Pre-Notify User** section, and then configure the following settings.
- (Optional) Configure settings that allow the end user to postpone the start of the deployment.
  - Configure the **Message Content** that informs the user about the deployment.
  - (Optional) Select additional languages and provide translated title and body text for endpoints that are configured for other languages.

- To preview the window that displays the message and postponement options, click **Show Preview**.

**Pre-Notify User**

Notify User

Allow User to Postpone ?

Duration of Postponement:

User Postponement Options:

?

Countdown to deadline:

**Message Content** ? Show Preview

Title:

Title Icon:  Suggested size: 32x32px ?

Filename: --

Body:

Body Image:  Suggested size: 120x120px ?

Filename: --

Language Support:

Enable Additional Languages

**ES - Español** 🗑️

Title:

Body:

- g. To minimize concurrent CPU utilization and disk input/output, select **Distribute over time** and indicate the time.
- h. If you want to ignore deployment restrictions, select **Override maintenance windows**.
- i. (Windows) Select whether to restart the endpoint. For more information, see [Windows endpoint restarts on page 47](#).
- j. (Windows endpoints) You can enable end-user notifications about the completion of a deployment with or without a restart. Select **Notify User** in the

**Post-Notify User** section. If you enabled endpoint restarts, you can then configure the following settings that allow the user to postpone the restart:

- Configure the **Message Content** that informs the user about the restart.
- (Optional) Select additional languages and provide translated title and body text for endpoints that are configured for other languages.
- To preview the window that displays the message and postponement options, click **Show Preview**.

**Post-Notify User**

Notify User

Allow User to Postpone ?

Duration of Postponement: 1 days

User Postponement Options: 1 hours ?  
2 hours  
4 hours

Countdown to deadline: 10 minutes

Message Content ? [Show Preview](#)

Title: Restart Required

Title Icon: Choose File Suggested size: 32x32px ?  
Filename: --

Body: IT needs to restart your system to deploy software.

Body Image: Choose File Suggested size: 120x120px ?  
Filename: --

Language Support:

Enable Additional Languages

**ES - Español**

Title: Reinicio Requerido

Body: IT necesita reiniciar su sistema para implementar el software.

[Add Language](#)

7. Click **Create Deployment**.

## Review deployment summary

You can get the deployment results by status, any error messages, and the deployment configuration details.

1. In the Deploy menu, click **Deployments**.
2. Select either the **Active** or **Inactive** tab.
3. Click the deployment name.
4. Review the sections.
  - **Install/Install or Update/Update/Remove Summary** shows the package name, package size, and operations.
  - **Install/Install or Update/Update/Remove Status** has the install status, number of online endpoints, and the date and time of the last status update. The results are split out by status with the Interact icon to see the results by endpoint.
  - **Error Messages** include a brief description, the count of affected machines, and the Interact icon to drill down.
  - **Deployment Details** provides all the configuration information.
  - **Targeted Computers** lists the targeted computer groups for the deployment.

## Reissue a deployment

You can restart a stopped deployment or reissue a one-time deployment. Reissuing a deployment creates a new deployment with the same configuration and targets.

1. From the Deploy menu, click **Deployments**.
2. On the **Inactive** tab, click the deployment name.
3. Click **Reissue**.
4. Make changes if necessary.
5. Preview the changes.
6. Click **Create Deployment**.

## Stop a deployment

You can stop a package or bundle deployment, but it does not remove packages that have already completed installation.

1. In the Deploy menu, click **Deployments**.
2. On the **Active** tab, click the deployment name.

3. Click **Stop**.
4. Go to the **Inactive** tab and click the deployment name to verify the status.

# Managing maintenance windows

Maintenance windows control when deployments can run on a computer group. A maintenance window is separate from the deployment start and end time. To run a deployment, a maintenance window must be open during the configured deployment time, or the deployment must have the **Override maintenance windows** option configured.

Deployments do not run outside of a maintenance window unless the **Override maintenance windows** option is selected in the deployment options. You must create at least one maintenance window for other deployments to run.

## Maintenance window options

You can configure maintenance windows for the times that are best for your environment. Apply maintenance windows by enforcing them against computer groups. Multiple maintenance windows can affect a computer group, creating several times that deployment activity is permitted.

If you want . . .	After the date and time, select . . .
A one-time window	<b>Does Not Repeat</b>
A window that repeats every few days	<b>Daily</b> and the number of days between windows
A window that repeats on the same days of the week	<b>Weekly</b> , the number of weeks between windows, and which days of the week it opens on
A window that repeats on the same date each month	<b>Monthly</b> , the number of months between windows, and <b>Day of the Month</b>
A window that repeats on the same day each month	<b>Monthly</b> , the number of months between windows, and <b>Day of the Week</b>
A window that repeats on the same day of the year	<b>Yearly</b> and the number of years between windows

**IMPORTANT:** If a maintenance window does not repeat and it is the only one enforced against a computer group, deployments cannot run after the window closes.

## Create a maintenance window

You can open multiple maintenance windows to customize when deployments run on your endpoints. For example, you can create windows that allow deployments during periods of low network activity or outside of core working hours.

1. In the Deploy menu, click **Maintenance Windows**.
2. Click **Create Window**.
3. Name the window.
4. Choose from your browser time or local time on the endpoint.
5. Configure the window repetition.
  - a. Select the repetition time frame.
  - b. Set additional options, such as day of the week, day of the month, and how often the window repeats.
6. Use the date and time pickers to set the start and end time of the window.

**Note:** If a maintenance window repeats, it does not have an end date. You must remove the enforcement against the target computer groups to stop the maintenance window.

7. Click **Create**.
8. Add one or more target computer groups.

## Edit a maintenance window

1. In the Deploy menu, click **Maintenance Windows**.
2. Select a window.
3. Click **Edit**.
4. Make your changes.
5. Preview the changes.
6. Click **Save**.

## Override a maintenance window

You can run a deployment outside of a maintenance window by configuring the **Override maintenance windows** option during a deployment. For more information, see [Deploying packages and bundles on page 42](#).



## Delete a maintenance window

After the enforcements have been removed, you can delete a maintenance window.

1. In the Deploy menu, click **Maintenance Windows**.
2. Select a window.
3. If the window is enforced against computer groups, remove all groups.
4. In the upper right, click **Delete**.
5. Confirm the deletion.

# Using the Self Service Client application

With the Self Service Client application, you can publish software to Windows endpoints so that users can install software on their own without the need for IT to install them. To use the Self Service Client application on your Windows endpoints, you must create a self service profile in Deploy version 1.2 or later.

## Before you begin

- Install the Tanium End-User Notifications version that is listed in [Tanium dependencies on page 15](#). For more information, see [Tanium End-User Notifications User Guide: Installing End-User Notifications](#).
- Create one or more software packages or bundles. For more information, see [Managing packages and bundles on page 32](#).

## Create a self service profile


1. From the Deploy menu, click **Self Service Profiles** and then click **Create Profile**.
2. Provide a name and optionally a description for the profile.
3. Select computer groups or define a group of computers to target.
4. Choose packages or bundles to include or remove from the profile.
  - a. By default, each package is allowed to be installed, updated, and removed in the Self Service Client application. You can deselect any options if you do not want users to perform those operations.
  - b. If a software package requires a restart of the endpoint, you can select **Requires Restart**.
5. Click **Preview to Continue** and then click **Create Profile**.

## View self service profiles


From the Deploy menu, click **Self Service Profiles** to view all self service profiles.

This page displays all currently defined profiles and basic information about those profiles. You can expand the profile to view more detail about the profile, including the defined software packages and the allowed actions that are associated with each package. This expanded detail also shows the targeted groups or questions for the profile.

## Edit a self service profile

To edit a self service profile, click **Edit**  next to the profile name. You can also click the profile name and then click **Edit**.

## Delete a self service profile

To delete a self service profile, click the profile name and then click **Delete** .

## Track usage statistics

You can check the status of packages or bundles that are used in the Self Service Client application and track usage statistics of the Self Service Client application on endpoints.

From the Deploy menu, click **Deployments** and then click the **Self Service** tab. This page displays all software packages and bundles that are included in self service profiles. It also shows the number of times a given operation was performed for each package.

## Use the Self Service Client application on endpoints

The Self Service Client application includes the following tabs:

### **Dashboard**

The **Dashboard** tab displays the most recently added software applications and any current activity.

### **Catalog**

The **Catalog** tab displays all of the available software applications in the catalog.

### **History**

The **History** tab displays any completed activities that occurred on the system and their results.

### **Activity**

The **Activity** tab displays any currently running or upcoming activities. Completed activities are moved to the **History** tab.


To install, update, or remove software applications on endpoints, open the Self Service Client application. For more information, see [Tanium Community: Help End Users Help Themselves, With Tanium Deploy End User Self Service](#).

# Troubleshooting Deploy

If Deploy is not performing as expected, you might need to do some troubleshooting or change settings. You can also contact your TAM for assistance.

## Collect a troubleshooting package

For your own review or to assist support, you can compile Deploy logs and files that are relevant for troubleshooting.

1. Get the Deploy log.
  - a. From the Deploy **Home** page, click Help .
  - b. Click the **Support** tab and click **Collect**.
  - c. When the **Status:** is updated, click **Download**.

The log zip file might take a few moments to download. The files have a timestamp with a `deploy-support-YYYY-MM-DDTHH-MM-SS.mmmZ` format.

2. (Optional) On the endpoint, copy the `Tanium\Tanium Client\Tools\SoftwareManagement` folder.
3. (Optional) View status and logs for recent Deploy service jobs.
  - a. On the **Support** tab, click **View Job Status**.
  - b. In the **Job Detail** window, click **Download Logs** to download a `job-logs.txt` file with more details about recent jobs.

**Tip:** You can also click **Show Details** and **Download Logs** from the **Initialize Endpoints** step of the **Configure Deploy** section on the Deploy **Home** page for details about the most recent endpoint initialization. If the **Configure Deploy** section is not visible on the Deploy **Home** page, click **Manage Home Page**, select **Configure Deploy**, and click **Save**.

## End user notifications are not displayed

End user notifications are supported for Windows endpoints only. 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 [Tanium End-User Notifications User Guide: Installing End-User Notifications](#).

2. Ask the question: `Get End-User Notifications - Has Tools` from all machines to check if your endpoints have the end user notification 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 19](#).

## No applicability information for software packages

Software package applicability is calculated on the endpoints by using the applicability rules in the package definition, which is stored in the software package catalog and distributed to the endpoints.

If the applicability information for software packages is not available:

1. Verify that the Deploy process is running on the target endpoint.
  - a. Ask the question: `Get Deploy - Is Process Running` from all machines
  - b. Check locally for the `\Tanium\Tanium Client\python27\TPython.exe` file on the endpoint.
2. Load the saved question: **Deploy - Software Packages Applicability 0** to display the package id and the applicability state of the first 200 packages. This saved question runs on a schedule that is defined by the Deploy service. Review Deploy Settings to adjust these settings as needed.
  - a. From the Main menu, click **Content > Saved Questions**.
  - b. Select the **Deploy - Software Packages Applicability 0** row and click **Load**.

## No software in the Packages Gallery page

After you import Deploy 1.1 or later, you must [Configure service account on page 29](#) and [Initialize Deploy endpoints on page 30](#) again. After the endpoints are initialized, it might take up to one hour to see the software in the **Packages Gallery** page. You can also restart the Tanium Deploy service to reduce this time constraint.

If you still do not see any software in the **Packages Gallery** page:

1. From the Main menu, click **Content > Packages**.
2. Search for the `Deploy - Software Package Gallery` package.

3. Verify that this package is cached.
  - a. Verify that the **Size** column does not list `Pending`.
  - b. If the size stays at `Pending` for more than one hour, contact your TAM for assistance.
4. Check to see if the Tanium Deploy service is attempting to gather the Deploy package gallery file.
  - a. [Collect a troubleshooting package on page 61](#).
  - b. Open the downloaded support bundle and open the `deploy-files\logs\Deploy.log` file.
  - c. Search for `Ensuring software package gallery zip package`.
  - d. If the `Deploy.log` file does not have that text, [Configure service account on page 29](#) again, wait 10-15 minutes, and then repeat the previous steps to recheck the log file.
5. If you still do not see any software in the **Packages Gallery** page after completing the previous steps, contact your TAM for assistance.

## Uninstall Deploy

**IMPORTANT:** Use only this procedure to uninstall Deploy.

If you need to uninstall Deploy, first clean up the Deploy artifacts on the endpoint, then uninstall Deploy from the server, and then remove Deploy data directories and files from the server.

### Delete Deploy actions

1. Go to **Actions > Scheduled Actions**.
2. Click **Action Groups** and then choose **Tanium Deploy**.
3. Select all of the Deploy actions, click **More**, and choose **Delete Actions**.

### Remove deployment artifacts from endpoints

1. Use Interact to target endpoints. To get a list of endpoints that have Deploy tools installed, ask the `Get Deploy - Tools Version from all machines` question.
2. In the results grid, choose an item and click **Deploy Action**.
3. Click **Deployment Package**, choose **Deploy - Remove Tools [operating system]**, and select **Remove saved data**.

4. Schedule the deployment to reissue periodically and set an end date. This action removes data from endpoints that come online later.
5. Choose the action group to target with the deployment, preview the deployment, and then click **Deploy Action**.
6. Repeat these steps for each operating system package that is installed.

## Remove Deploy from the Tanium Module Server

1. From the Main menu, click **Tanium Solutions**.
2. In the Deploy section, click **Uninstall** and follow the process.
3. Click **Proceed with Uninstall**.
4. The uninstaller disables any actions and reissues saved questions.
5. Return to the **Tanium Solutions** page and verify that the **Import** button is available for Deploy.

If the Deploy module has not updated in the console, refresh your browser.

## Remove packages

1. From the Main menu, click **Content>Packages**.
2. In the **Content Set** column, filter on values that contain Deploy.
3. Retain the **Deploy - Remove Tools** packages, and select and delete all of the other packages.
4. Confirm the action.

## (Optional) Remove data directories and files

To permanently remove all Deploy data from the Tanium Module Server, manually delete the following directories and files. If you later import the Deploy solution, the previous data is not restored.

### WINDOWS:

- `\Program Files\Tanium\Tanium Module Server\services\deploy-files\`
- `\Program Files\Tanium\Tanium Module Server\services\deploy-service\`
- `\Program Files\Tanium\Tanium Module Server\temp\deploy-service\`
- `\Program Files\Tanium\Tanium Module Server\temp\deploy-service-invoker\`



- \Program Files\Tanium\Tanium Module Server\temp\deploy-service-proxy\  
service-proxy\
- \Program Files\Tanium\Tanium Module Server\temp\deploy-\*.bak

**TANOS:**

This action requires access to the unrestricted shell. For more information, including how to request a shell key from your TAM, see [Tanium Appliance Deployment Guide: Examine OS processes and files.](#)

- /opt/Tanium/TaniumModuleServer/deploy-files
- /opt/Tanium/TaniumModuleServer/deploy-service
- /opt/Tanium/TaniumModuleServer/temp/deploy-\*.bak