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# Free Training Transcript: Upgrading to Tableau Server with TSM

# Introduction

Welcome to this video on upgrading from Tableau Server 2018.1 or earlier to Tableau Server with Tableau Services Manager. Beginning with version 2018.2, Tableau Server on Windows features a new web-based configuration and management utility called Tableau Services Manager (or TSM). TSM replaces the Configuration Utility and the `tabadmin` command line tool of pre-TSM servers. When we upgrade from a pre-TSM version of Tableau Server to a version running with TSM, we need to perform special upgrade steps. In this video, we will upgrade from pre-TSM Tableau Server 2018.1 to Tableau Server 2019.1 with TSM.

## Upgrade Preparation

Before we upgrade, it is important to read through and perform the steps outlined in the Upgrade Tableau Server section of Tableau's Online Help page. Find the link below in Related Resources.

The first step is to research the upgrade. This includes learning about the version differences, assessing the minimum hardware requirements, confirming license requirements, and understanding the impact of version compatibility between Tableau Desktop and Tableau Server.

The second step is to prepare for the upgrade. This includes gathering product keys and security certificates, creating a server backup and saving it to another machine, collecting additional configuration files, and downloading the installation files.

Additional upgrade preparation steps can be found within the Online Help documentation.

## Demonstration Overview

We will follow the best practice of performing the upgrade in a test environment that closely mirrors our production environment. We are permitted to use our existing license keys in the test environment. Once we verify the success of our upgrade in the test environment, we then perform the upgrade in the production environment.

Our existing Tableau Server 2018.1 environment contains 2 projects, 2 workbooks, and 15 views. It has a single user (the server administrator) and 5 schedules. The server consists of a 2-node cluster (with processes running on both the Primary node and Worker node). The server has also been customized to display a custom header logo.

Here are the upgrade steps we will perform. We will create a backup of the 2-node clustered Tableau Server 2018.1 environment and save a copy of the backup to a network file location. We will uninstall Tableau Server 2018.1 from the primary node and then from the worker node. We will install Tableau Server 2019.1 on the initial node (formerly called the primary node) and generate a bootstrap file. We will copy the bootstrap file to the additional node (formerly called the worker node) and then install Tableau Server 2019.1 on the additional node. On the initial node, we will run an upgrade script which makes use of the backup file we created earlier. From the TSM page, we will start Tableau Server and verify that it is working. To demonstrate the manual migration of a customization, we will reapply a custom logo to the upgraded server.

## Preparation Files

On our primary machine, we have already created a folder containing our license key information, custom logo image, and installation files. A similar folder exists on our worker machine.

## Create a Tableau Server 2018.1 Backup

On our primary machine, we open the Command Prompt (as Administrator), navigate to the bin directory, and create a backup of our server. We then use Windows File Explorer to navigate to the location of the backup file and save a copy of it to a different machine. In this example, we'll copy it to a network drive.

## Uninstall Tableau Server 2018.1

On our primary node, we navigate to the Windows Control Panel and uninstall Tableau Server 2018.1. This automatically creates a server backup file equivalent to the backup file we created earlier. We switch to the worker node, navigate to the Windows Control Panel and uninstall Tableau Server 2018.1 there as well.

## Pre-TSM and TSM Terminology and Installation File Differences

On Tableau Server with TSM, we no longer have separate installation files for primary and worker machines. Instead, each node in a cluster is installed using the same installation file and all nodes are more equal peers. We no longer refer to “primary” and “worker” nodes. Instead we have an “initial node” and “additional nodes”.

## Install Tableau Server 2019.1 on the Initial Node

We switch over to the initial node. We run (as administrator) the installation file for Tableau Server 2019.1. When prompted for the installation location, we make sure to select the same location as the previous installation. This ensures that the backup file and previous data will be included in the new installation.

When prompted for installation type, we select “Upgrade Tableau Server” for the primary node. After the files have been extracted, we will be prompted regarding the upgrade script. We will NOT launch the upgrade script at this time. Since we are upgrading a multi-node Tableau Server cluster, we must first generate a bootstrap file and run the installer on the additional nodes of the cluster. We ensure that “Automatically launch the upgrade script” is NOT selected and then press OK.

## Generate a Bootstrap File

On the initial node, we open the command prompt (as administrator), navigate to the packages directory and generate a bootstrap file. We then use Windows File Explorer to navigate to the location of the bootstrap file and save a copy of it to a network file location that the additional node can access.

We now switch over to the additional node. We use Windows File Explorer to copy the bootstrap file from the network file location to a local folder location.

## Install Tableau Server 2019.1 on the Additional Node

On the additional node, we run (as administrator) the installation file for Tableau Server 2019.1. When prompted for the installation location, we make sure to select the same location as the previous installation.

When prompted for installation type, we select “Upgrade worker node of existing Tableau Server cluster”.

After the files have been extracted, we will be prompted regarding the bootstrap file. We specify the location of the bootstrap file we copied over from the initial node earlier. We also enter our Tableau Services Manager username and password. Since Tableau Services Manager delegates access control to the operating system, we need to specify a user that is a member of the Windows Administrator group on the initial node.

## Run the Upgrade Script

Now that we have installed Tableau Server 2019.1 on all additional nodes, we return to the initial node to run the upgrade script. While running the Command Prompt (as administrator), we navigate to the scripts directory and run the upgrade script. The script will make use of the backup file created earlier.

## Start Tableau Server

Once the upgrade script has completed, a browser window will open, automatically taking us to the TSM sign in page. We sign in as a user that is a member of the Windows Administrator group. We then use the dropdown to Start Tableau Server.

Once started, we browse to Tableau Server to confirm that we can view its contents. We test the server upgrade using the steps outlined in the Online Help. Once we have verified that the server upgrade was successful in the test environment, we follow the same steps to upgrade the production environment.

## Apply a Custom Logo

Certain customizations are not automatically reapplied during the server upgrade. These include custom logos and custom authentication. Our custom logo was not automatically reapplied. We will reapply it now. We run the Command Prompt (as administrator), navigate to the system32 directory, and execute the tsm customize command. We also execute a command to apply all pending changes. Lastly, we refresh our browser to see the custom logo.

## Additional Help

For additional help on the upgrade of Tableau Server, please visit [onlinehelp.tableau.com](https://onlinehelp.tableau.com).

## Conclusion

Thank you for watching this video on upgrading from Tableau Server 2018.1 (or earlier) to Tableau Server with Tableau Services Manager. We invite you to continue with the Free Training Videos to learn more about using Tableau.