



On-Demand Training: Installing and Configuring Tableau Server Transcript

Welcome to this overview video on installing Tableau Server.

Tableau Server is a scalable platform that provides end users with the ability to consume interactive dashboards published from Tableau Desktop, securely, over-the web, or on a mobile device. Tableau Server is easy to install and configure. We will walk through a basic installation in this video.

Review Tech Specs

Let's take a minute to review technical specifications for Tableau Server

- Tableau Server supports all major web browsers
- It can be installed on a physical or virtual machine, but requires a Windows operating system. Tableau recommends having dedicated resources on the machine.
- There are many factors involved in sizing and scaling Tableau Server. One of the most important factors is user concurrency. The hardware guidelines provide a simplified overview: In general, Tableau would recommend a minimum of 4 cores, and 4-8GB of RAM per core.
- The database drivers for all data sources must also be installed on the server.

Initial Installation

This video assumes that Tableau Server is being installed for the first time. If you are upgrading Tableau Server, please watch the Upgrade video.

- After downloading the Tableau Server software on the machine, right click on the installer and choose Run as Administrator
- It prompts to begin installation, click "Next". Select the destination location for the Tableau Server. The default is the C drive, but you can choose a different path if you wish.
 - If you specify a different installation path, it is important to take note of it and use the same path when you are upgrading Tableau Server. That way the upgrade process can automatically migrate existing content and configuration settings to the new version.
- We'll leave the default and click next.
- Tableau will verify whether the machine meets minimum system requirements.
- Click Next to proceed with setup
- We need to accept the end user license agreement
- Create a program shortcut in the start menu and click next
- Now we will begin the installation. Click next to launch the configuration dialog.

Understanding the Configuration Dialog

When installing Tableau Server for the first time, the configuration dialog will have 4 tabs.

- We're going to focus mostly on the general tab in this video, but there is a "Get Help" link at the bottom left of

each tab that links to the available documentation in the online help.

- Tableau recommends reviewing the online help documentation if you are setting up other advanced options including SSL, SAML, Kerberos, or distributed workers.

Configuration - Run as User

- The Run as User account is very important. It must be an Active Directory user account. It's often easier to manage as a generic service dedicated to Tableau Server, rather than be associated with a specific person.
- The Run as User account needs to have the correct permissions to connect to data sources.

Configuration - User Authentication

Next is user authentication. When installing Tableau Server, we have the option to choose either Active Directory or local authentication.

- It is important to plan which authentication method is best suited for your organization and your choice should be considered permanent. Changing the authentication method requires completely uninstalling Tableau Server and deleting several files to start a clean install.
- However, there is documentation on the steps required for modifying the Tableau Server Authentication method on our website if necessary.

The majority of our customers integrate Tableau Server with Active Directory.

- When using AD, all usernames and passwords are managed by Active Directory. Tableau Server will store user names in its repository, but it will pass the user credentials to the active directory server for authentication.
- Type the fully qualified domain name in the Active Directory box and choose whether or not to enable automatic login. Automatic login uses Microsoft SSPI to provide a single sign on experience for users.
- Do not enable automatic login if you plan to configure Tableau Server for SAML, trusted authentication, or for a proxy server.
- If you use Active Directory for authentication, Tableau Server can import users and groups from Active Directory, but does not automatically sync as new users are added or removed.
 - Tabcmd could be used to automate the sync of Active Directory groups on a schedule

Local Authentication is Tableau Server's built-in user management system. It allows you to create usernames and assign passwords.

I'll use Active Directory with automatic login enabled.

Configuration - Gateway

- The default port for web access via HTTP is port 80.
 - This port can be changed depending on networking needs.

- of the port is changed, append the port number at the end of the Tableau Server URL.
- If Tableau Server is configured with SSL it will redirect requests to the SSL secure port which is 443.
- Check the option to open port in Windows Firewall. When selected, Tableau Server will open the port used for http requests to allow other machines on the network to access the server.
- If you choose to install sample workbooks to the server, they will be placed in the Tableau Samples project folder. These are useful to check that Tableau Server can load a view on initial install and these can easily be deleted by the administrator later.
- Click OK.
- You will see a message that settings have been saved.
- Tableau Server will continue with initialization.

After Tableau Server finishes initialization, a web browser will open and you will be prompted to create an administrator account on Tableau Server.

- The administrator account is an individual user that has complete access to the Tableau Server and can manage users, groups, projects, and workbooks, as well as monitor Tableau Server processes.
- If you chose Active Directory authentication, this will be a Windows account and password.

Tableau Server is now successfully installed.

- Let's check to make sure that all of the Tableau Server processes are running. Click on the status tab and verify that all the Tableau Server processes are green.
- For a more in depth description of Tableau Server administration, refer to the resources below the video.

Adding Users

We'll quickly walk through how to add users and import an Active Directory group.

- To add users, click on the users tab, then add users.
- We can add individual Active Directory users, import a group from Active Directory, or add users from a CSV file that contains user information.
- Let's add a user individually.
- We must also assign a Site Role. Most users will be added as Interactors. If a user has a copy of Desktop, assign them the publisher role
- If your installation uses local authentication, create a user name for a user. If the user name is unavailable, an email address would be a good unique identifier for the user. Type in a display name, a password, then confirm the password and set the user role. The end user will sign in with the temporary password you

created.

- The password can be changed later once they've signed into the site.

Adding Users - Importing Groups

If we are leveraging Active Directory, we might want to bring in a group of users rather than specify users individually.

- Click on Add users, then Click on Active Directory Group. As you type in the name of the group you want to import, Tableau will search for Active Directory groups.
- A Site Role needs to be set.

Tableau Server is now completely installed, up and running, and has users who can begin to publish content from Tableau Desktop.

Advanced Configuration Settings

Let's go back to the configuration dialog and discuss some of the more advanced configuration settings of Tableau Server.

When making configuration changes, it is important to stop the Tableau Server first, so the changes will be saved.

- Notice the configuration dialog has 7 tabs. We already discussed the general tab.

Advanced - Data Connections

The data connections tab sets how caching will be configured on the Tableau Server system.

- Refreshing less often can improve performance for end users as views and queries are shared by the cache server.
 - Refreshing less often holds the cache for 12 hours.
- The balanced option sets how many minutes to hold the cache.
- Refresh more often forces more queries on the database and will not leverage cache when page views reload. This ensures that each user sees up to the minute data when they log in to Tableau server and a view loads.
- Caching will not be leveraged if you are using user filters

Advanced - Servers

The servers tab is where you can add worker machines and specify the number of processes per machine.

Depending on the requirements of your organization, you might set up a distributed environment for High Availability which will eliminate the single point of failure on the Tableau Server system. There is additional documentation on configuring for High Availability in the Online Help. High Availability requires a minimum of 3 nodes. If you are setting up a distributed environment, this is where you would add and configure the workers after the worker software has been installed on those machines.

On a 64-bit Tableau Server installation, the default process configuration as shown here is sufficient for the majority of customers.

We'll go through a brief overview of each process. There is additional documentation on each process and how they consume resources in the online help.

- The VizQL process executes queries and renders visualizations
- The application server or Viz Portal supports the Tableau Server User Interface and navigation
- The backgrounder is a single threaded process that executes server tasks including extract refreshes. If you are running very large extract refreshes or have a lot of tasks at once, you might choose to scale out your Tableau Server and add additional backgrounders to run more tasks.
- The Cache Server acts as a shared cache across Tableau Processes. It is used by the VizQL, Data Engine, and Data Server Processes.
- The Data Server process provides centralized management of data connections
- The Data Engine stores and queries Tableau Data Extracts. More than two data engines per machine is not recommended. All data engines are active/active.
- The File Store acts as a shared repository of Tableau Data Extract files and provides improved extract replication
- The Repository is the Tableau Server database that stores workbook and user metadata. You can establish a preferred repository to be active
- The Gateway routes client requests into the appropriate Tableau Server process and houses the tile or image cache.
- The Search and Browse process should be placed on all machines that have VizPortal
- In a distributed environment, the Base Install contains the coordination service and cluster controller which work together to initiate failover in High Availability configurations.

Advanced - Alerts and Subscriptions

Tableau Server can be configured with an SMTP Server to send server health alerts and enable subscriptions for end users. Subscriptions enable end users to sign up for a scheduled snapshot of a Tableau Server dashboard over email.

- Check both boxes to enable server health alerts and subscriptions.
- Enter in the information for your SMTP Server
- Keep the enable TLS option unchecked so your connection to your mail server is unencrypted.
- Choose the email address that subscriptions come from and the email address health issues should be sent to.
- The Tableau Server URL is necessary if users should be able to click in the subscription and have it link to the live view in Tableau Server.

Advanced - SSL

Configuring Tableau Server for SSL will encrypt HTTP traffic to ensure secure communication of sensitive information between the web browser and the Server.

- Once you have acquired your SSL certificate from a trusted authority, we recommend placing the certificate files in a folder named SSL parallel to the Tableau Server folder.
 - This gives the account that is running Tableau Server the necessary permissions to the files.
- Select use SSL for Server communication and then browse to the appropriate certificate files.
- If you are configuring SSL on a Tableau Server distributed environment, make sure that you place the SSL certificate and key file on each Tableau worker running the gateway process. We recommend reading the additional documentation on setting up SSL in our online help.
- There are additional options on how to secure connections to the Tableau Server Postgres repository

If you are setting Tableau Server up for SSL, SAML, and Kerberos, you can click get help at the bottom of a tab to be directed to the online help for more information on that topic of configuration.

Any time changes are made to the server configuration dialog, you must reenter the run as user account password.

Conclusion

Thank you for watching this video on installing and configuring Tableau Server. We invite you to continue with the On-Demand Training videos to learn more about using Tableau.