Running Setup

This chapter describes how to install Tableau Server [2020.3] on Windows and perform essential configuration steps to get the server up and running. Installing the software is the first step to sharing and connecting to workbooks. Later chapters of this guide describe how to configure Tableau Server so users can connect from anywhere to share, view, and publish data.

If you are upgrading your server, see Upgrade Tableau Server[(Link opens in a new window)].

The *Everybody's Install Guide* is only published for the current version ([2020.3]) of Tableau Server. If you want to install an earlier version of Tableau Server, refer to the deployment content for the version that you wish to install. See Archived Help Content[(Link opens in a new window)].

Let's review

In the previous chapter (Planning Your Deployment) you figured out:

- How you're going to license your server (by users or by cores).
- What hardware you'll need in order to run your server.
- How your users are going to authenticate with Tableau Server---either using Windows Active Directory or using local authentication on Tableau Server.
- Whether you need to create a domain account for the Run As User account.

Right? If not, go back and spend some time on these issues. This is where an ounce of prevention really does save a pound of cure. For example, if you go through this chapter and guess at the authentication configuration, and you get it wrong ... well, you'll have to uninstall the server and start over. Or worse, if you undersize your hardware specs for the usage your organization requires, then eventually everyone will be grumpy because things run too slowly.

Before you install

Compared to about 98.7% of the other server products on the planet, Tableau Server has an amazingly simple install program. Still, there are a few things you must do before you proceed.

Make sure you have the right version of Tableau Server software

Our recommendation is this: use the same version (for example, [2020.3]) of Tableau Desktop and Tableau Server across your organization. To get the latest version of Tableau Server software, go to the Customer Portal[(Link opens in a new window)]. When you purchase Tableau, you get a user name and password to sign in to the Customer Portal.

To get an older version of Tableau Server, go to Tableau Server Product Downloads and Release Notes.

If you're in a situation where you must run different versions of Tableau on different computers, read the article Desktop and Server Compatibility[(Link opens in a new window)].

Get a product key and make sure you're registered

Using the user name and password that you received when you purchased Tableau, go to the Customer Portal[(Link opens in a new window)] and get your product key.

Also make sure that you've registered an email address. We need a contact email to associate with each product key. You should provide us with an email address that is checked frequently and that will not expire.

Make sure you have the right Windows version

The following 64-bit Microsoft Windows Server operating systems are supported:

- Windows Server 2012
- Windows Server 2012 R2
- Windows Server 2016
- Windows Server 2019

Make sure you have Administrator permissions

To run the Tableau Server installation program, you must be signed in to the computer as a "local admin"---a user who's a member of the **Administrators** group in the **Local Users and Groups** management console in Windows. The "local" part means that you're an administrator for the local computer only, not for any other resources or computers on the network.

You can install Tableau Server as a local administrator even if you're running in an environment that uses Active Directory, which your security-minded IT person will appreciate. (You might need to be an Active Directory user when you configure the Run As User account, which is a post-installation task that we'll cover later.)

Make sure you're installing on a "clean" computer

As we discussed in the planning chapter, we recommend that you install Tableau Server on a computer that's dedicated to running Tableau Server. Here's why:

- Performance. As Tableau Desktop users discover the data liberation that Tableau Server enables, they'll use Tableau Server to share data sources, and to view, share, and host workbooks as part of their daily decision making process. This data transformation requires a server computer that is fast and stable. Tuning performance is much more straightforward when Tableau Server is not competing with other resources, especially other database applications.
- Security. A general security best practice is to segregate server applications as much as possible. Tableau Server acts as a conduit between your users and data that might be spread across your network. Tableau Server also stores extracts of your important data. All Tableau Software is built with disciplined security engineering practices, and we do a lot of work to protect data, accounts, and sensitive information with our default installation. But to reduce the risk of security incidents, you should reduce the attack surface of the computer running Tableau Server by removing (or not installing) other server software.
- Interoperability. A highly experienced administrator can get Tableau Software to interoperate happily with lots of other server software that might be installed on the same computer. But we're assuming that you want to minimize the time you spend manually configuring the server.

  For example, if the server computer has Microsoft Internet Information Services (IIS) installed on it, then it's likely that IIS will already be configured to use port 80, which means that port won't be available for Tableau Server. Sure, you can configure Tableau Server to use a different port, like 8000. But that means that anytime your users connect to Tableau Server, they'll have to put that port number into the URL (`http://your-server:8000/`). You can see how this would pretty much guarantee a steady stream of emails to you about how to connect to Tableau Server. It's not pretty and it's not conducive to a data revolution. Best practice, therefore, is to make sure Tableau Server has the server computer all to itself.

Ready? Let's lay those bits down ...

Step 1: Run Server Setup

After you download the Tableau Server installation file, double-click the installation file and then follow the on-screen instructions to complete setup and install the application.

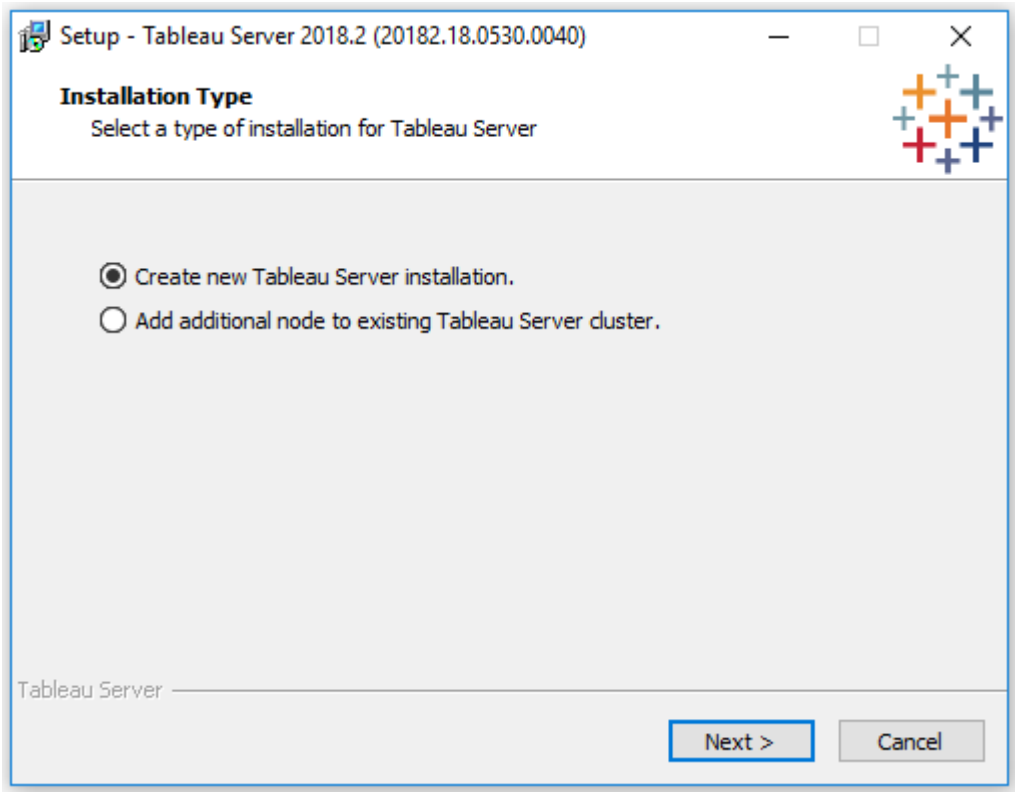
Choose an installation path

We recommend that you let the setup process install Tableau Server in the default path (`C:\Program Files\Tableau\Tableau Server`). If you change paths, you might need to set some permissions manually after setup. If you do specify a different path, be sure to read Verify Folder Permission[(Link opens in a new window)].

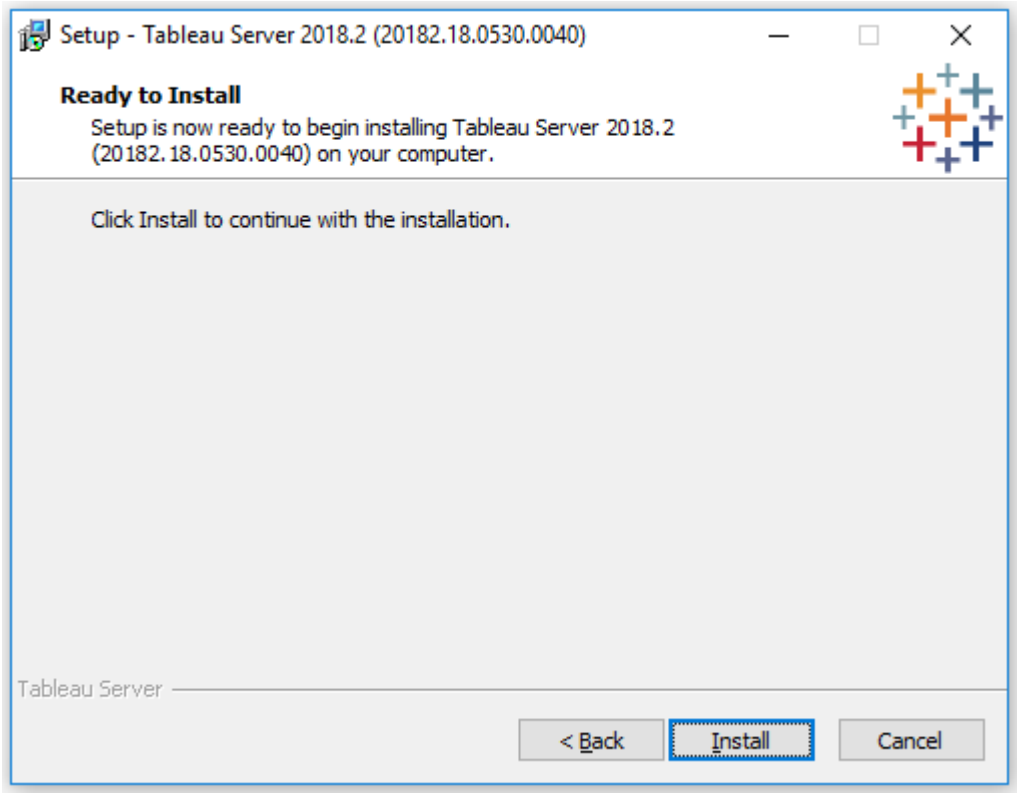
 Image from setup that allows you to change the file path

Click [Next].

The [Installation Type] page will display:



You're installing a new server, so leave the default selection, [Create a new Tableau Server installation], and then click [Next].

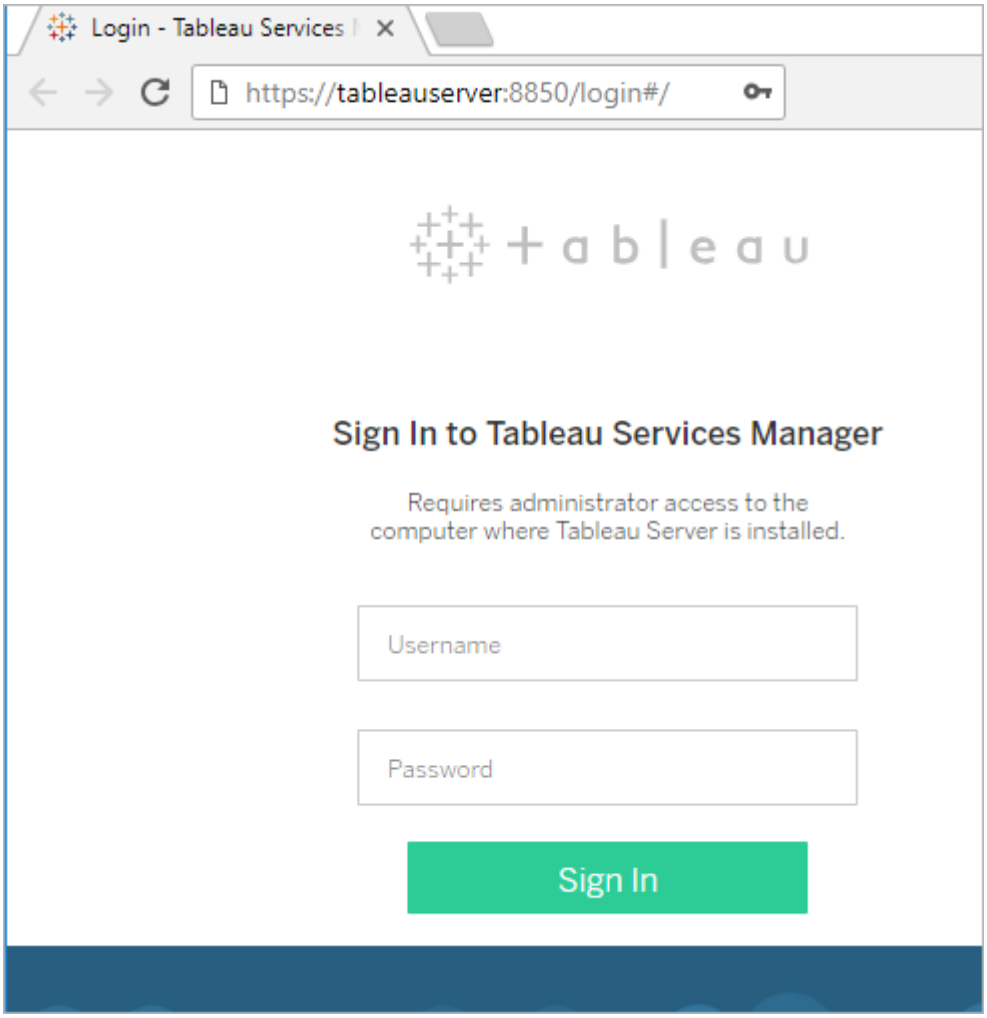


The Ready to Install page will display. Click [Install].

After installation completes, click **Next** to start Tableau Services Manager (TSM). Starting TSM can take a few minutes.

Step 2: Sign in to TSM

The remainder of the setup process is performed with TSM in a web browser. After the first part of installation is complete, the Setup program will launch your browser and prompt you for your credentials:



Sign into TSM with the administrator credentials that you are using to run Setup.

Step 3: Activate and register Tableau Server

When TSM starts, it will launch the Activate page.

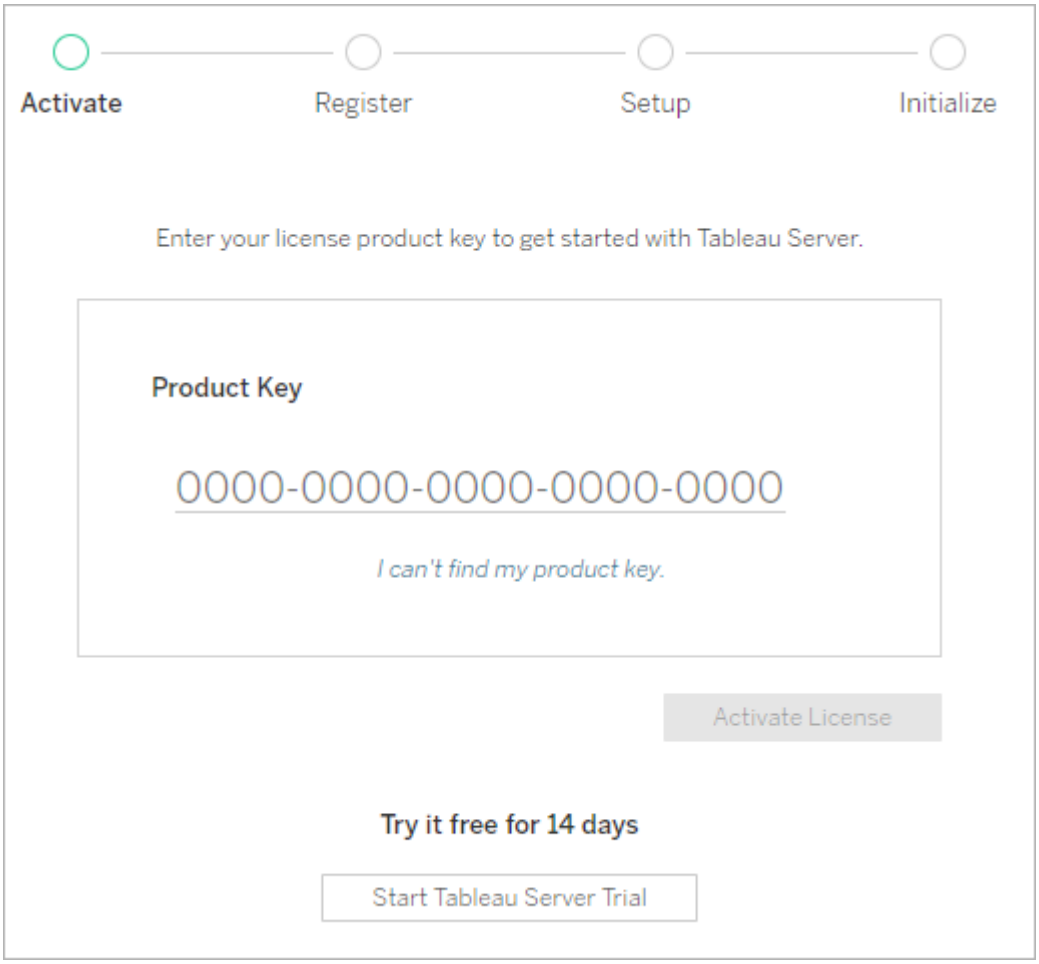
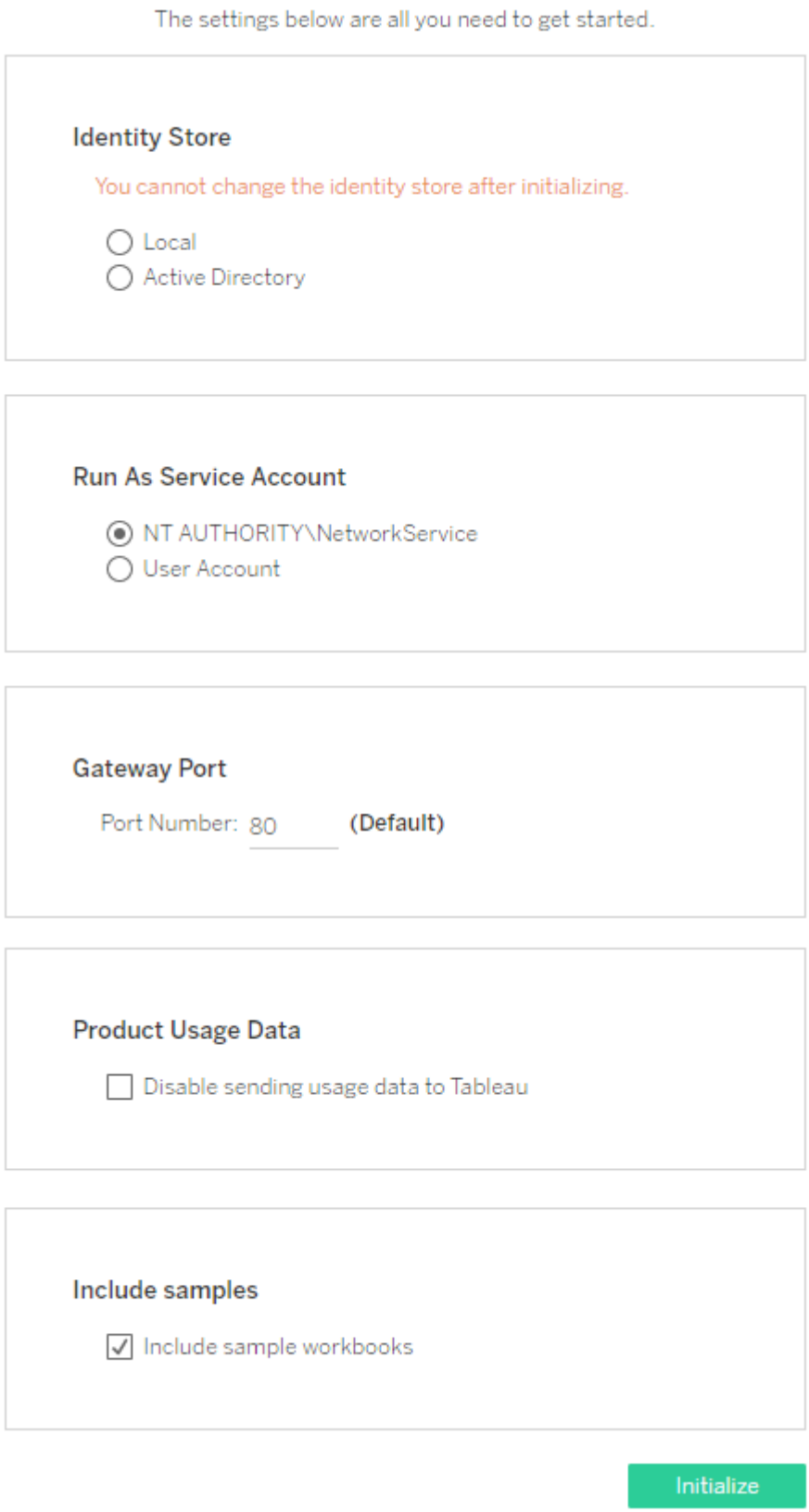


Tableau Server requires at least one product key that is used both to activate the server and to set your license type (user-based or core-based).

If the computer running Tableau Server is not connected to the internet, then you'll have to activate the server offline. If this is your situation, be sure to read Activate Tableau Offline[(Link opens in a new window)].

Step 4: Configure essential Tableau Server settings

After you finish activating and registering, the Tableau Server configuration options page appears.



You must set the authentication type (aka: Identity Store). If your deployment plan requires updating that account to an Active Directory user account, we also recommend setting Run As User now.

And if you've installed Tableau Server onto a computer where you're running another application that is listening on port 80, you'll need to determine how you are going to resolve that conflict.

You can install a set of sample workbooks too. These are handy for organizations where Tableau Server is new. You can let your users get a feel for Tableau Server while not risking loss or intentional edits to real workbooks. Users can log on to Tableau Server and view, edit, and download the sample workbooks.

Set the authentication type

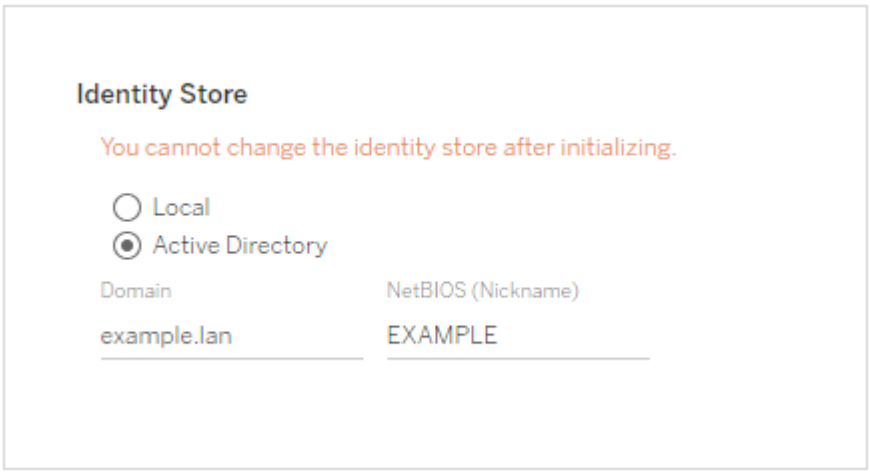
Under **Identity Store**, set the authentication type.

Make sure you've got the authentication type right

Make sure that you've set this appropriately *before* you click [Initialize]. Clicking [Initialize] here sets the authentication type for the life of this server installation. If you want to change it after that, you have to reinstall Tableau Server.

The default is local authentication (Local), so you only need to change this if you're going to use Active Directory authentication.

If you're going to use Active Directory, select [Active Directory]. Then in the [Domain] field, enter the fully qualified domain name (FQDN) of your domain, and in the **NetBIOS** field, enter the domain's NetBIOS name, or nickname.



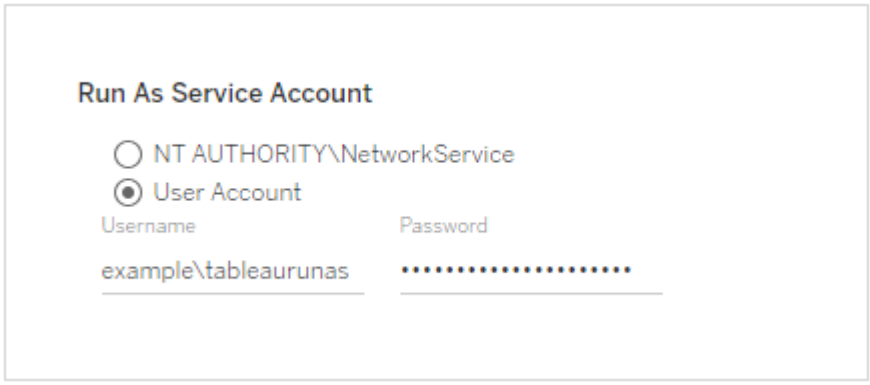
The NetBIOS name is usually the left-most node of the FQDN. The first time your users sign in, they'll need to use the fully qualified domain name (for example, `example.lan\jsmith`). On subsequent sign-ins, they can use the nickname (`example\jsmith`).

Set Run As service account

If you have determined that your deployment plan requires updating the Run As service account with a domain account, enter that account in the [User Account] field.

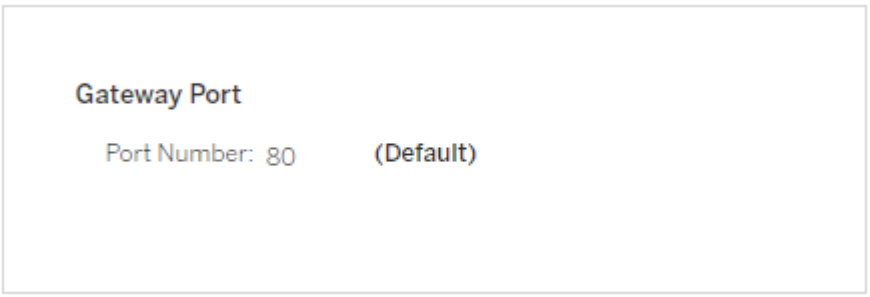
Important: Include the domain name with the user name---for example, `example\tableaurunas`.

Enter the password that you created for this account.



Set the port

If the port number displayed in the **Gateway** section says **80**, you're golden.



If the port number isn't 80 (for example, it's 8000), you'll need to figure out what application on the server computer has already claimed HTTP port 80. (As noted earlier, if port 80 unavailable, it's often because Microsoft IIS is running on the server computer.)

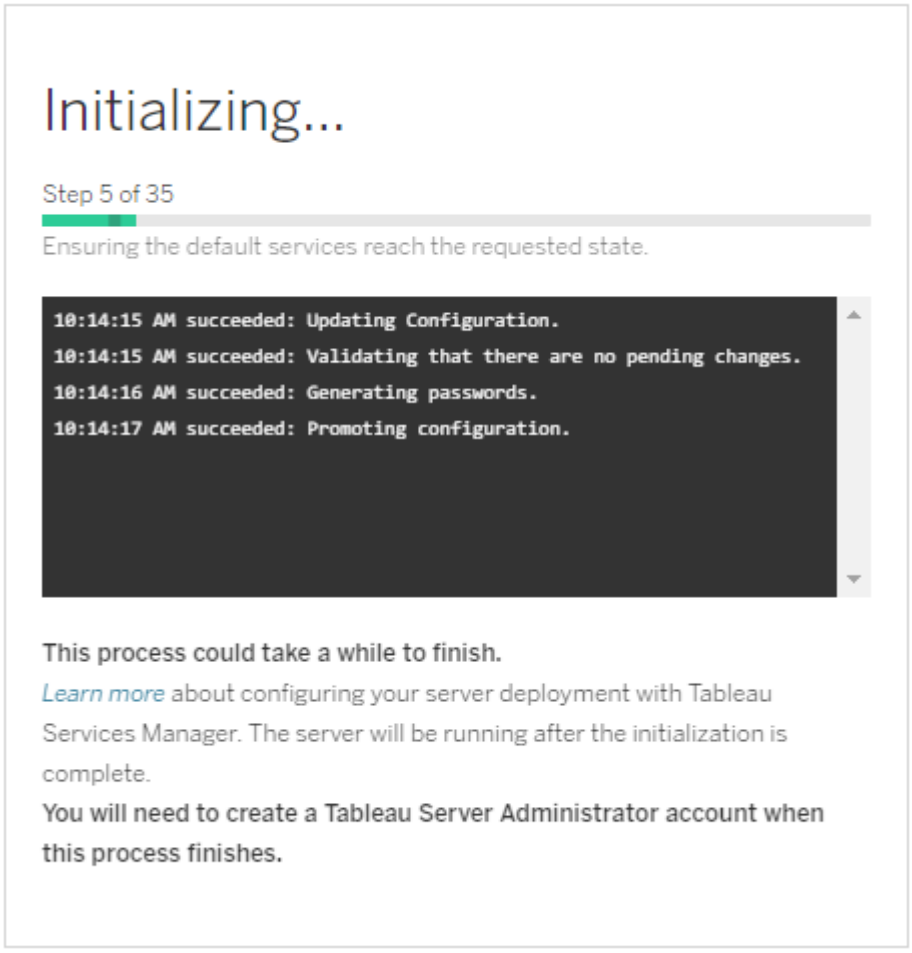
If you're not sure how to proceed here, bring in an IT expert in to help.

If you must have other applications on the server that default to use port 80, we recommend that you reset ports on those other applications so that Tableau Server can use port 80.

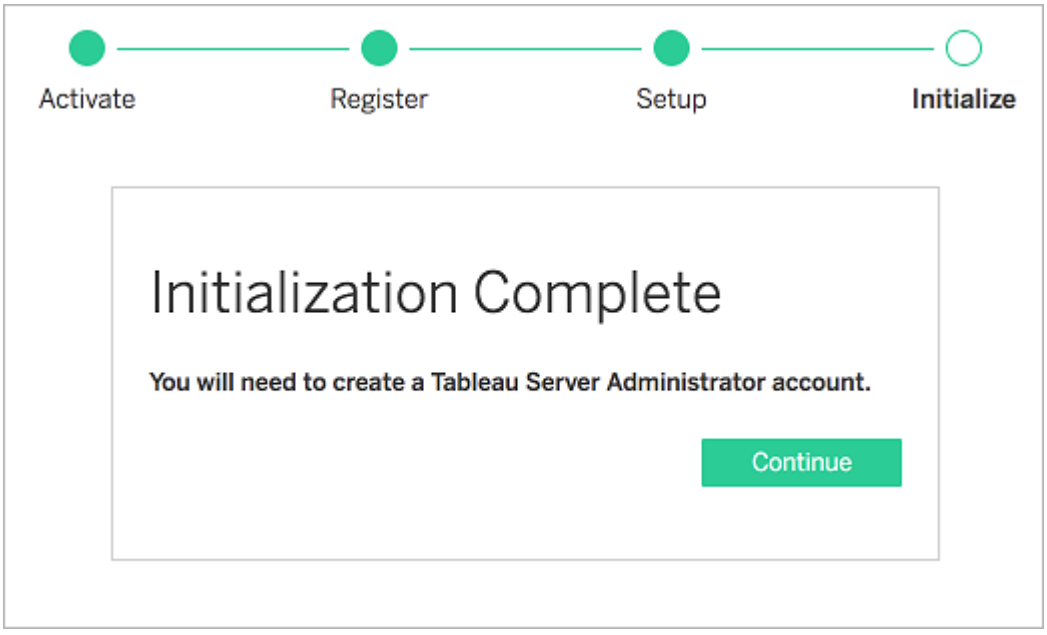
Continue configuration

To continue the configuration, click **Initialize**.

Tableau Server saves the configuration changes, and will initialize. This can take a while.



When finished, the following page will be displayed:



Click **Continue** to launch the final step of setup.

Step 5: Create a Tableau Server administrator user

The final step is to add an administrator user for Tableau Server. After the configuration is all set, Tableau launches your browser and presents a page where you set the administrator user for Tableau Server.

The Tableau Server administrator is a user within Tableau Server who can manage all aspects of Tableau, including managing sites, users, groups, and projects, plus change server configuration settings.

- If you are using Active Directory for authentication, then the account that you specify here must be a user in the directory.
- On the other hand, if you are running Tableau Server with local authentication, the username and password that you specify here will be used to create the administrative account. Enter a strong password for this account.

Use this account to access the Tableau Server admin web pages. See Sign in to Tableau Server Admin Pages[(Link opens in a new window)].

Keep the user name and password for the administrator in a secure place! First, the administrator user in Tableau Server has complete control over the server, so make sure that the credentials are kept secret. Second, you need these credentials to create additional users on the server, and this user is your ultimate entry point into the server if something happens.

You can add or change server admin accounts anytime. We'll cover that later in the Creating Users chapter.

Wait... there

are two different admin tools?

Strictly speaking, no, there are five different paths to administrating Tableau Server. The table here should clear it up. (The first two tools should be all you need.)

Admin tool	used for...	Account needed? How do I access it?
Tableau Server Admin Pages	Tableau-specific tasks relating to content. Creating and managing: users, groups, projects, sites, permissions, etc.	Use the account that you just created in the last step above. See Sign in to Tableau Server Admin Pages.
TSM Web UI	This is the tool that you used to setup and configure Tableau Server. The kinds of configurations that you make with TSM relate to server settings. For example, if you decide to enable SAML, or configure more processes for Tableau Server components, you'll be using the TSM Web UI. If you're familiar with older versions of Tableau Server, then think of TSM Web UI as a replacement for the Tableau Server Configuration Utility.	Any account that has administrative rights on the local computer where Tableau Server is running can access TSM Web UI. See Sign in to Tableau Services Manager Web UI.
TSM Command Line Interface (CLI)	This is a shell version of the TSM Web UI. If you are comfortable in the command line, then this is the tool for you. The TSM CLI has access to all configurable components of Tableau Services Manager, whereas the TSM Web UI is a subset. If you're a CLI user and you are familiar with older versions of Tableau Server, then think of TSM CLI as a replacement for tabadmin cli tool.	Any account that has administrative rights on the local computer where Tableau Server is running can use TSM CLI to manage the server. See tsm command line reference.
tabcmd	You can use the tabcmd command-line utility to automate site administration tasks on your Tableau Server site. For example, creating or deleting users, projects, and groups.	Use the same account for tabcmd that you use for Tableau Server. Using this account, you will have the same permissions to sites and content as you do when you sign in to Tableau. See tabcmd.
APIs and developer tools	There's a REST API, there's an Extract API, there's a Web Data Connector, and there are tools and samples on GitHub. These tools and APIs represent a huge potential for automating, extending, customizing, and optimizing Tableau Server for the data nerds in your organization.	Account requirements depend on what you're building. Start here: Tableau Developer Tools.

Your server is installed!

After you create the administrator user, you're signed in as the administrator to Tableau Server, using the web interface. You can poke around the UI to get a sense of what you can do. You can also try publishing a workbook[(Link opens in a new window)] to the server from Tableau Desktop.

But before you roll out Tableau Server to all colleagues, you must perform a few more steps. First: back up your server. Even though you don't have any users or data on your Tableau Server, you should do a quick back up. Our back up is quick and straightforward.

After you back up the server, you'll probably want to secure access to your server by configuring SSL and (optionally) providing secure access from internet clients.

After that, we'll describe how to add users, create groups, and then configure projects so the right people have access to the right content.