Install and Use a Terminal Server Agent

For supported software information, click [here](#).

In a multi-user virtual desktop environment, it is difficult to identify users when many users share the same IP address. A Versa terminal server agent (TSA) identifies users from virtual desktops instances, such as Windows-based terminal servers, by allocating a unique port range to each user. The terminal server agent then notifies each connected firewall about the allocated port range. The firewall then creates an IP-address-to-port user mapping table and enables user-based and group-based security policy enforcement.

To create user-based and group-based security policy for the terminal server agent, you configure a terminal server agent profile, which is used to synchronize the agent with Versa Operating System^{TM} (VOS^{TM}) devices and to allocate port ranges for users. You can then use the terminal server agent profile in terminal server agent services to enforce policies for user authentication. For more information, see [Configure a Terminal Server Agent](#).

After you install a Versa terminal server agent on a Windows Server, the agent starts sending user events to the associated VOS device. The terminal service agent performs the following functions:

- Intercept user login and logout events.
- Report to the VOS device the mappings of the user IP address to the port.
- Intercept a user's data flow and assigns the source port from the port range allocated to that user.

This article describes how to install and use a terminal server agent.

Install the Terminal Server Agent

You can install the Versa terminal server agent as a standalone component or as a software package on a Windows Server device. You can install the component on Windows Server 2019. For hardware requirements, see the Windows Server 2019 documentation.

You can silently install the Versa terminal server agent from the CLI , or you can download the VersaTSA.exe file and install the terminal server agent using the installation wizard.

### Install the Terminal Server Agent Using the Installation Wizard

To install the Versa terminal server agent using the installation wizard, you download the VersaTSA.exe file.

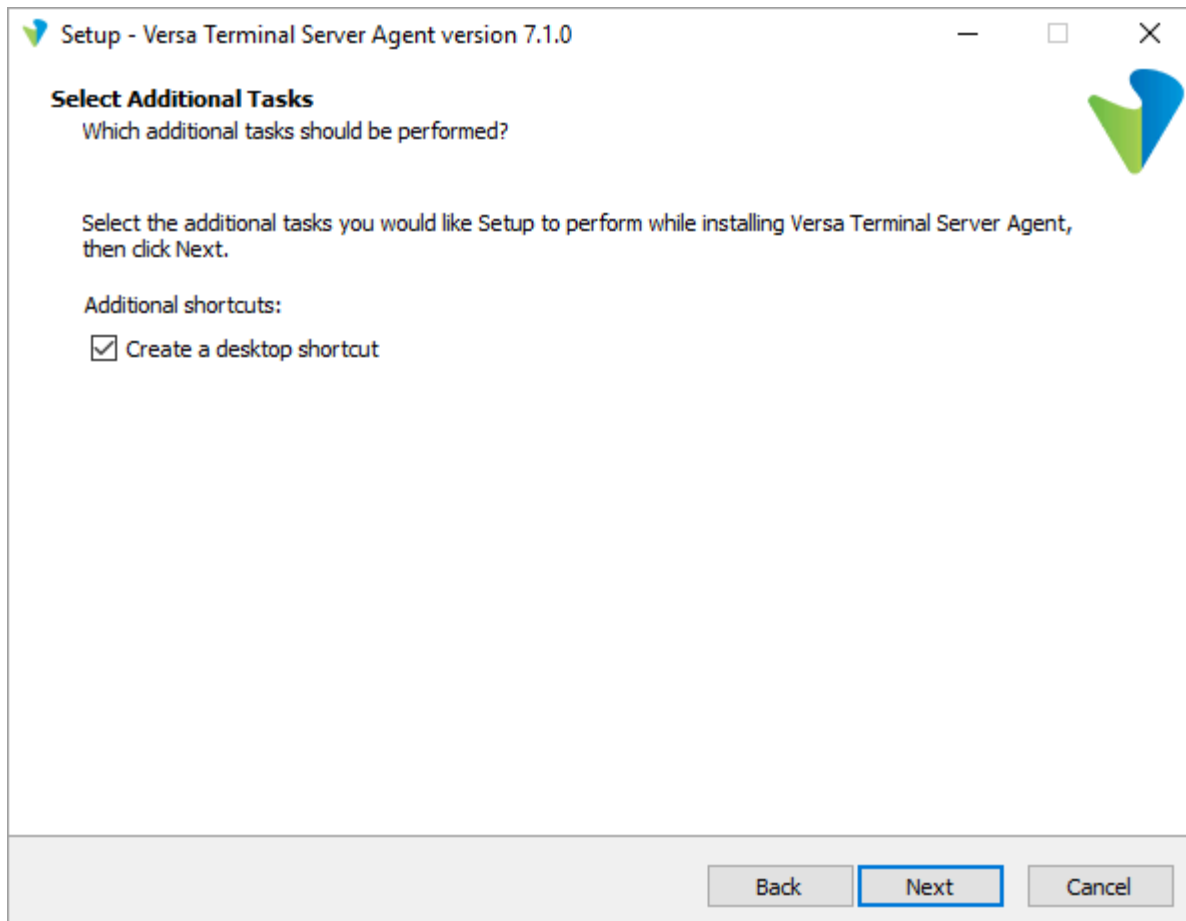Before you install the Versa terminal server agent using the installation wizard, ensure the following:

- If you have configured SAML authentication on the Windows server device, install Microsoft Edge WebView2 Runtime before you register the Versa terminal server agent. The Versa terminal server agent uses WebView2 to browse the SAML authentication URL internally.
- Copy the VersaTSA.exe file to the Windows server device from the following link: https://versanetworks.app.box.com/s/83g84wklcgq7k2uy292qfdyjusym12p7

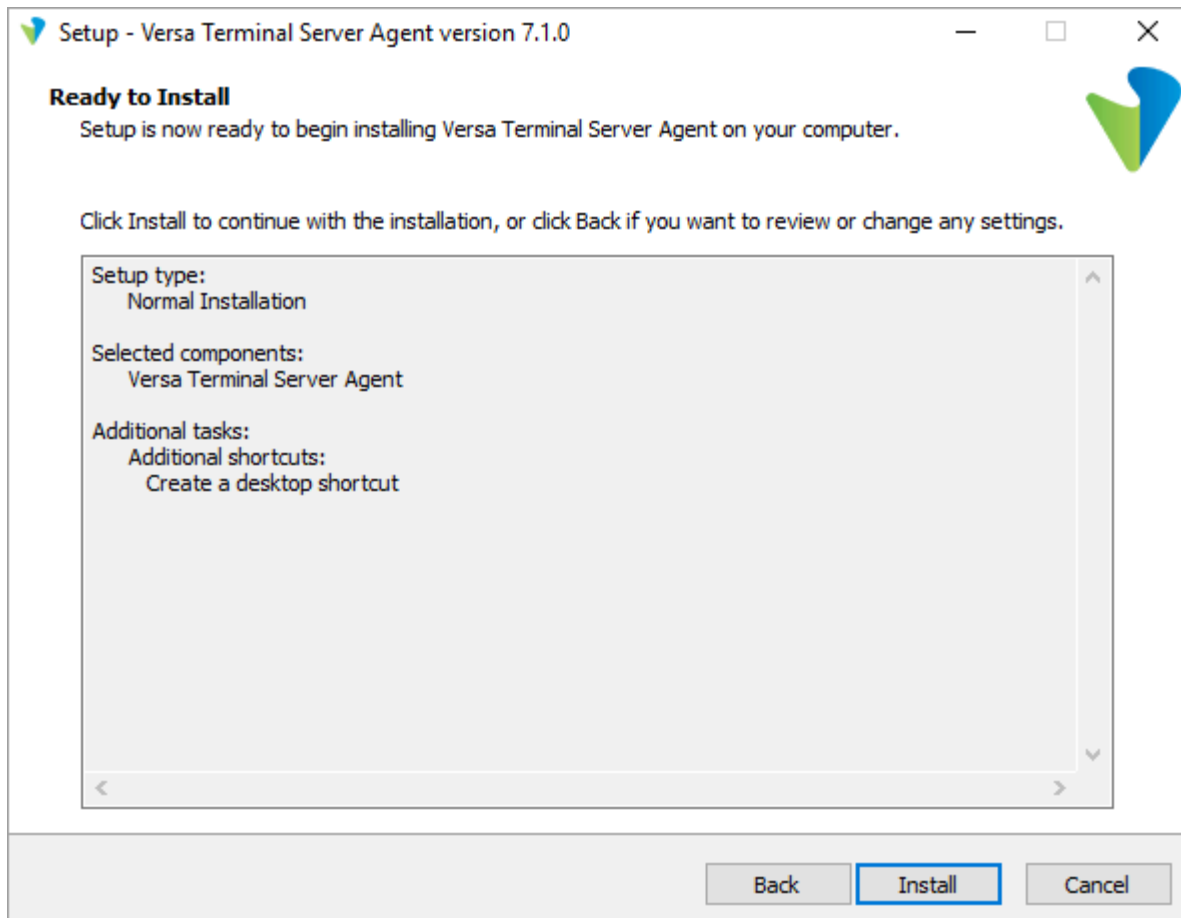To install the Versa terminal server agent on device using the installation wizard:

1. Double-click the VersaTSA.exe file.
2. The Select Component screen displays, selecting the Versa Terminal Server Agent selected by default.
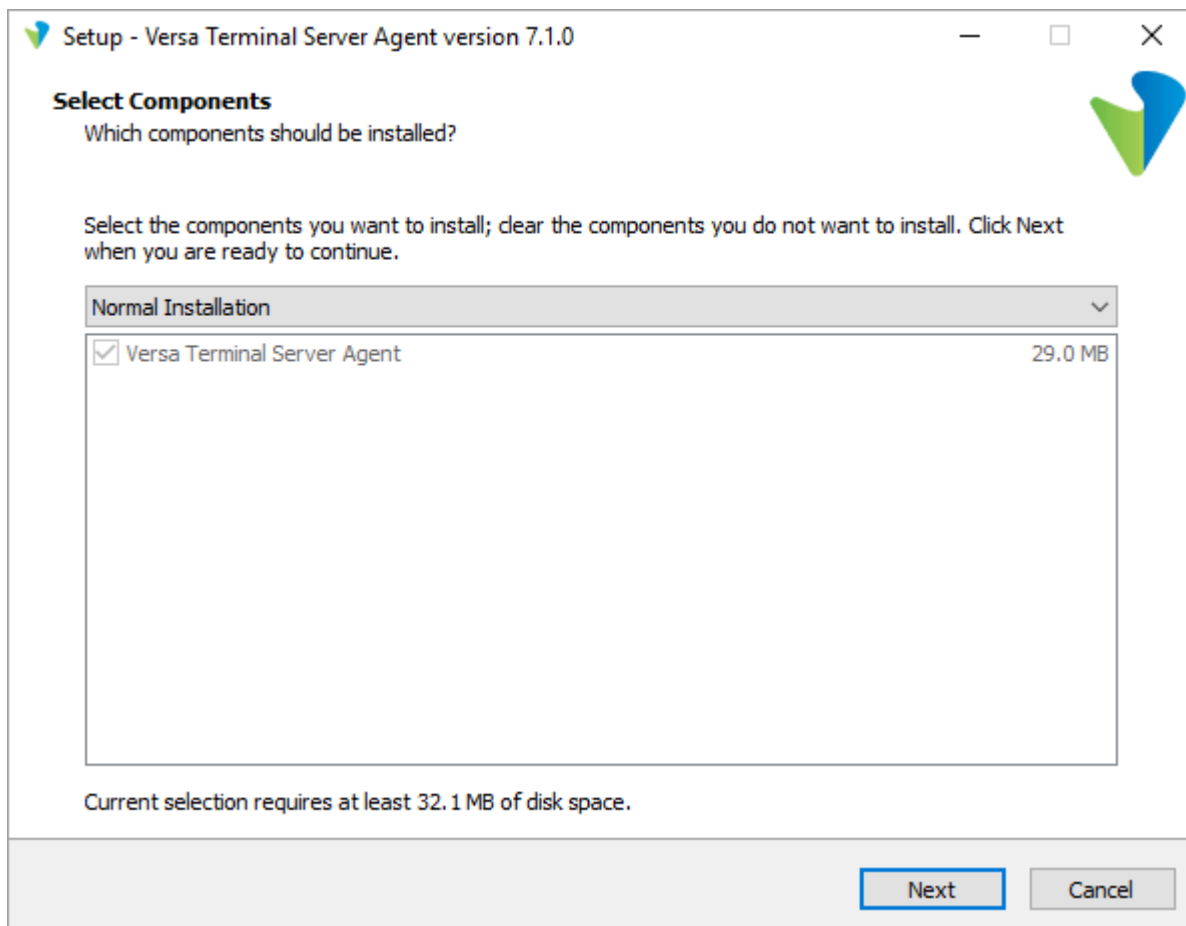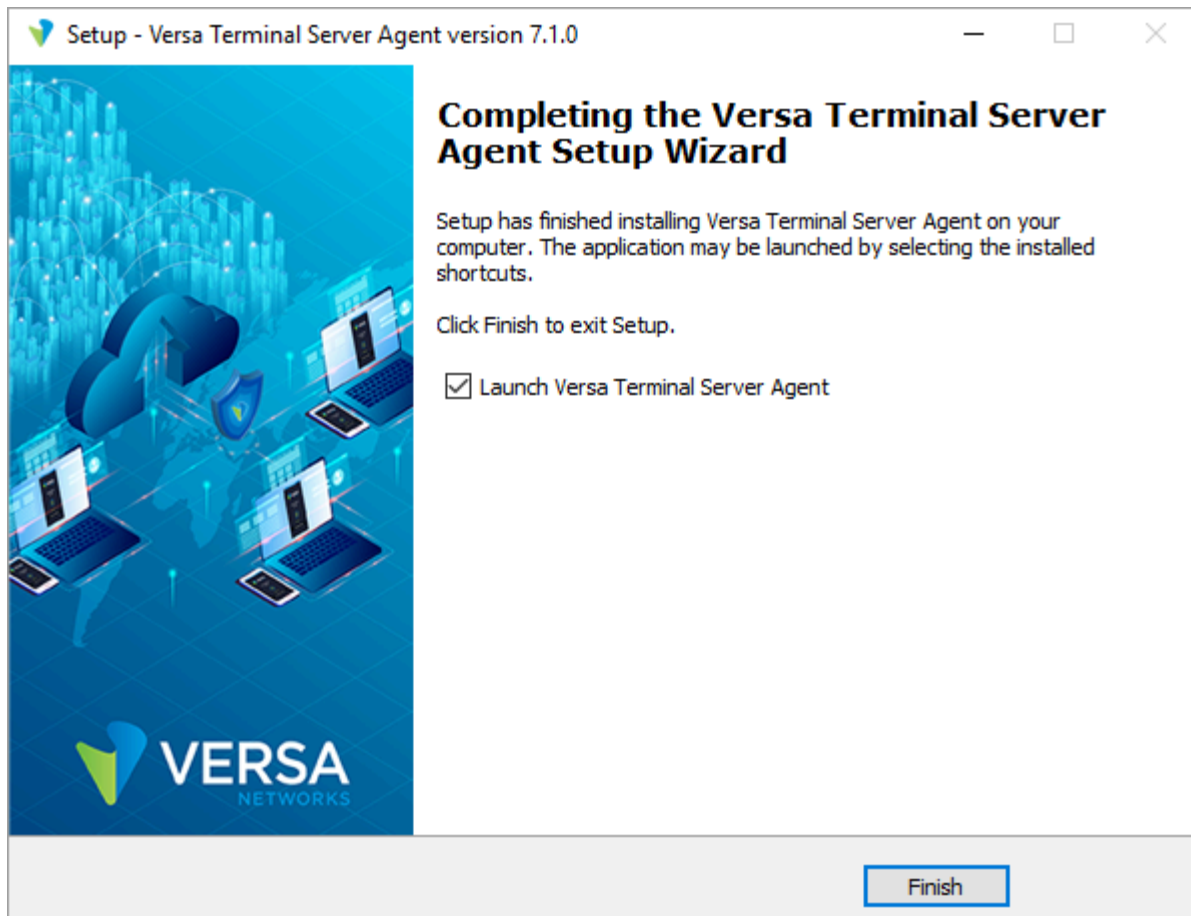

3. Click Next.
4. In the Select Additional Tasks window, click Create a Desktop Shortcut if required, and then click Next.

Setup - Versa Terminal Server Agent version 7.1.0

Select Additional Tasks
Which additional tasks should be performed?

Select the additional tasks you would like Setup to perform while installing Versa Terminal Server Agent, then click Next.

Additional shortcuts:

☑ Create a desktop shortcut

Back   Next   Cancel

5. In the Ready To Install window, click Install and then click Finish in the next screen.

Setup - Versa Terminal Server Agent version 7.1.0

Ready to Install

Setup is now ready to begin installing Versa Terminal Server Agent on your computer.

Click Install to continue with the installation, or click Back if you want to review or change any settings.

```
Setup type:
    Normal Installation

Selected components:
    Versa Terminal Server Agent

Additional tasks:
    Additional shortcuts:
        Create a desktop shortcut
```

Back   Install   Cancel

After you click Finish, the terminal server agent launches.

Install the Terminal Server Agent Using the CLI

If you are using tools such as the Microsoft System Center Configuration Manager (SCCM), you can install and configure the Versa terminal server agent from the CLI.

To silently install the terminal server agent silently, issue the following CLI command:

VersaTSA *software-version*.**exe /SILENT**

For example:

VersaTSA_v7.1.0.exe /SILENT

Register with the TSA Server

To register the terminal server agent with the terminal server agent server:

1. Double-click the agent shortcut on the desktop to open the terminal server agent.
2. Select Register in left menu bar and then click Register +.
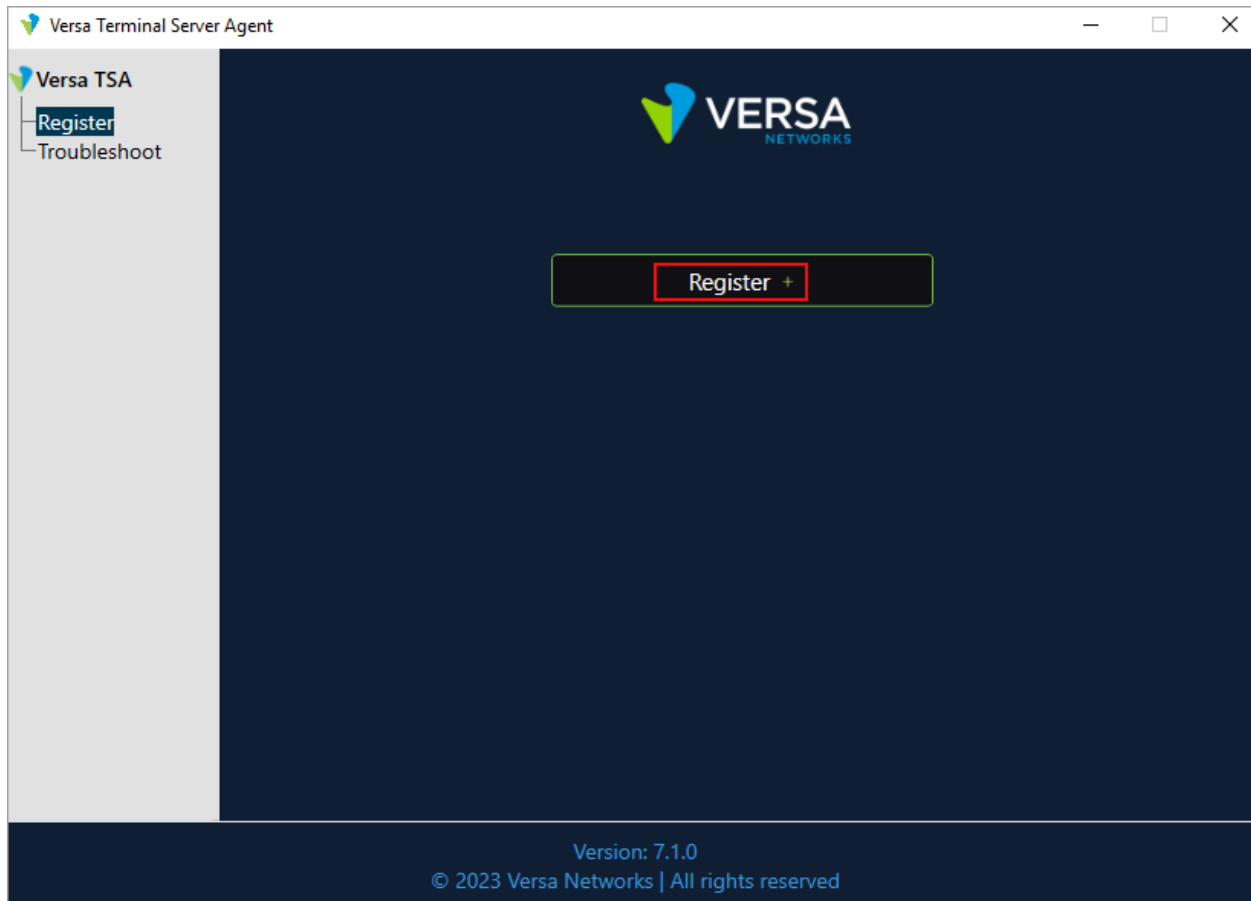
3. In the Register screen, enter information for the following fields:
   ◦ Portal FQDN (Required)—Enter the fully qualified domain name (FQDN) of the Versa terminal service agent portal.
   ◦ Enterprise Name (Required)—Enter the name of the enterprise
   ◦ User ID (Optional)—Enter the user identifier. The ID epends on the value configured on the server.

4. Click Submit. If the registration is successful, a screen similar to the following displays:
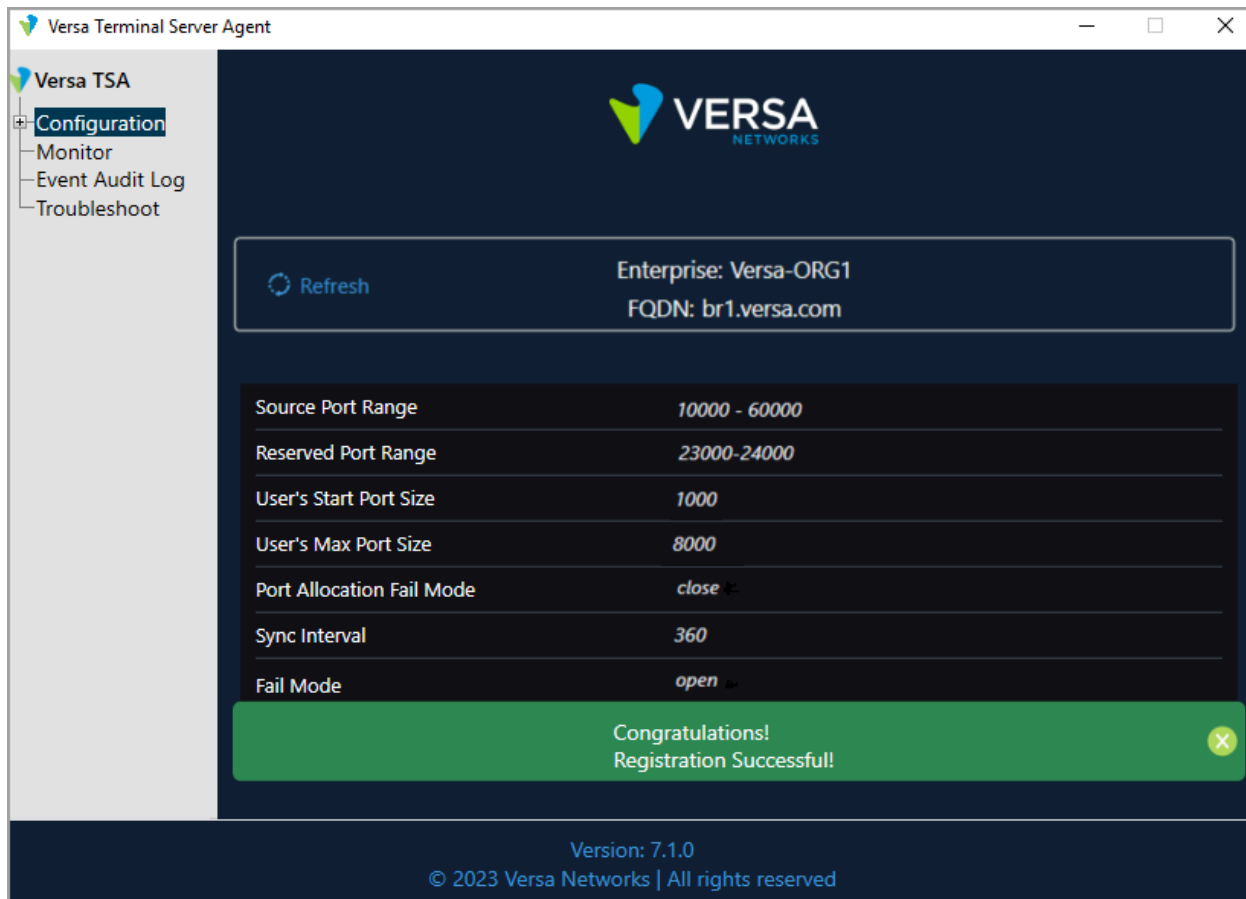
View the TSA Configuration

To view details about the terminal service agent configuration, open TSA and then click Configuration in the left menu bar. The following configuration information displays. Note that the values displayed are configured on the Versa Director, and on the terminal service agent they are view-only. For more information, see Configure a Terminal Server Agent.

Versa Terminal Server Agent

Versa TSA
- Configuration
- Monitor
- Event Audit Log
- Troubleshoot

VERSA
NETWORKS

⟳ Refresh

Enterprise: Versa-ORG1
FQDN: br1.versa.com

Source Port Range	10000 - 60000
Reserved Port Range	23000-24000
User's Start Port Size	1000
User's Max Port Size	8000
Port Allocation Fail Mode	close
Sync Interval	360
Fail Mode	open
User Name Format	sAMAccountName

Version: 7.1.0

Field	Description
Source Port Range	Displays the source port allocation range for user sessions
Reserved Port Range	Displays the reserved port allocation range for user sessions.
User's Start Port Size	Displays the initial port allocation size for each user.
User's Max Port Size	Displays the maximum port allocation size for each user.
Port Allocation Fail Mode	Displays the action that the agent uses to block flows when the user exhausts their allocated ports: • Close—Deny traffic if the user exhausts allocated ports. • Open—Allow traffic if the user exhausts allocated ports.
Sync Interval	Displays how often, in minutes, to synchronize the configuration with the server.
Fail Mode	Displays the traffic mode if the terminal server agent server connection fails: • Close—Deny traffic if the terminal server agent server connection fails. This is the default. • Open—Allow traffic if the terminal server agent server connection fails.
User Name Format	Select the username format to have the terminal server agent recognize: • UserPrincipleName—User principle name. A user principle name consists of a prefix (user account name), followed by the @ symbol and a suffix (DNS domain name). For example, someone@my-company.com.

To update the information, click Refresh.

Delete a TSA Configuration

To register a terminal service agent with different user details or to reregister the same user with different credentials,

you must delete the terminal service agent configuration.

To delete a terminal service agent configuration:

1. Open TSA, and then click Configuration in the left menu bar.
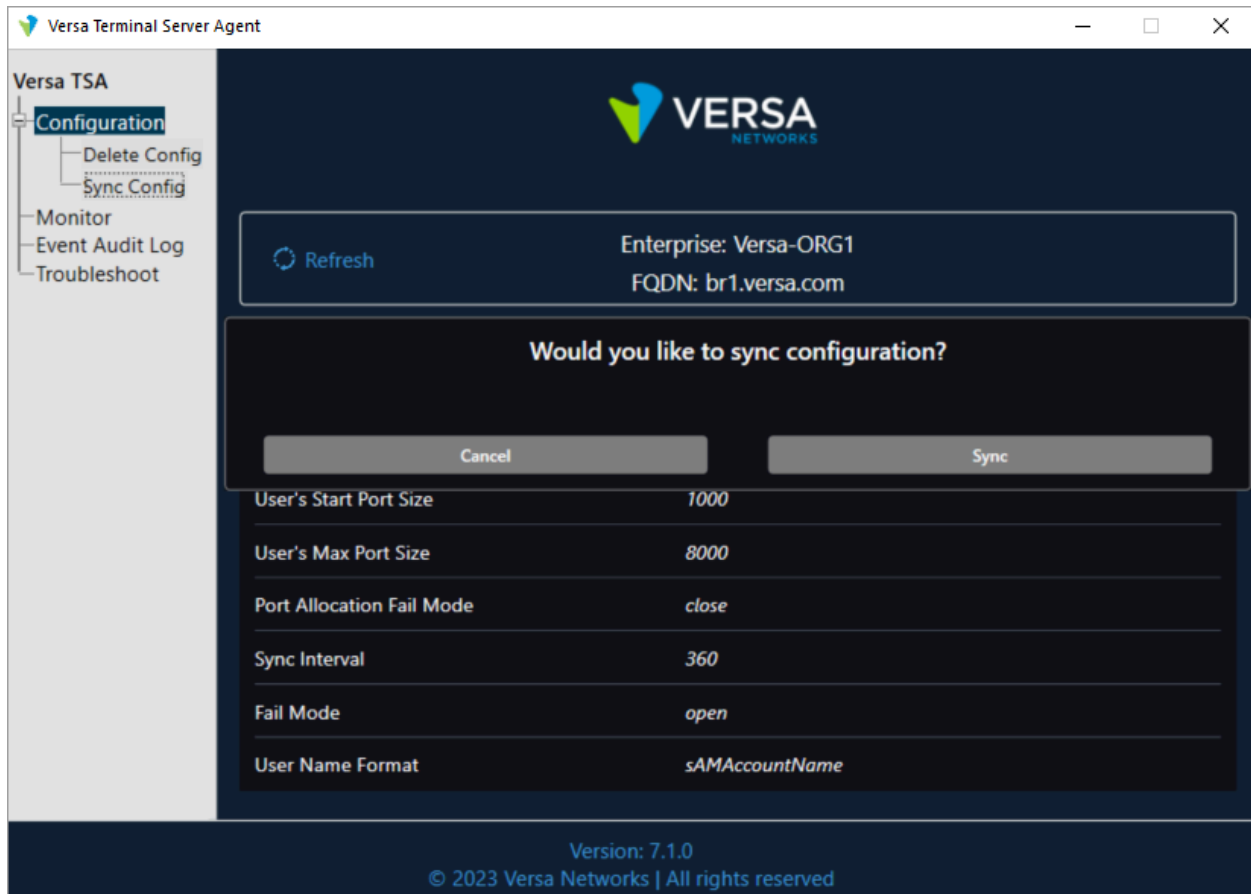2. Click Delete Configuration. The following message displays.
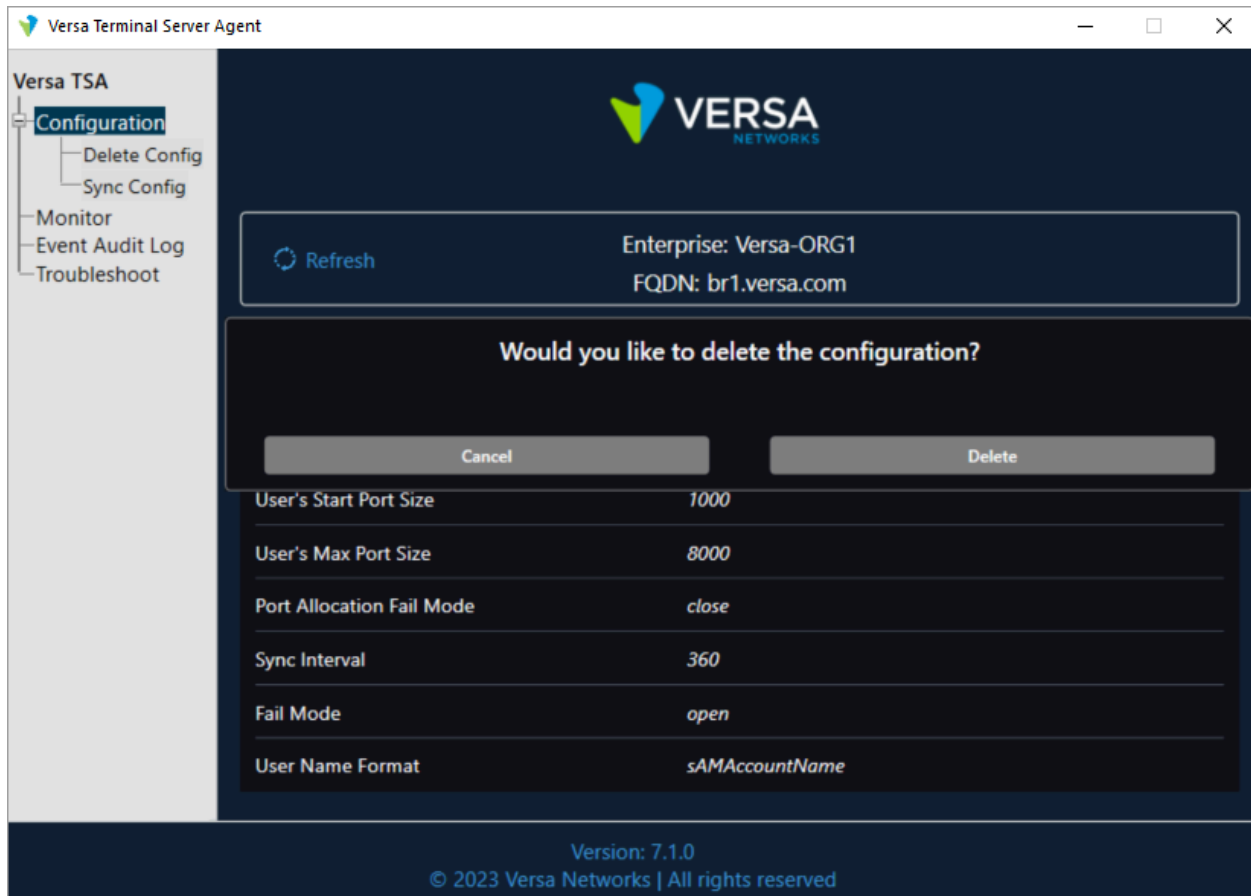
3. Click Delete to confirm deletion.

Synchronize the TSA Configuration

To synchronize terminal service agent to synchronize the agent with updated server details:

1. Open TSA, and then click Configuration in the left menu bar.
2. Click Sync Configuration. The following message displays.

3. Click Sync to synchronize the TSA configuration.

Monitor User and Port Information

To monitor user and port information, open TSA and then click Monitor in the left menu bar. The main screen displays the following connection status information:

• Connected (green)—Displays when the terminal service agent is connected to the server. If the status is Connected, the terminal service agent continues to report current user port assignments to the server. For example:
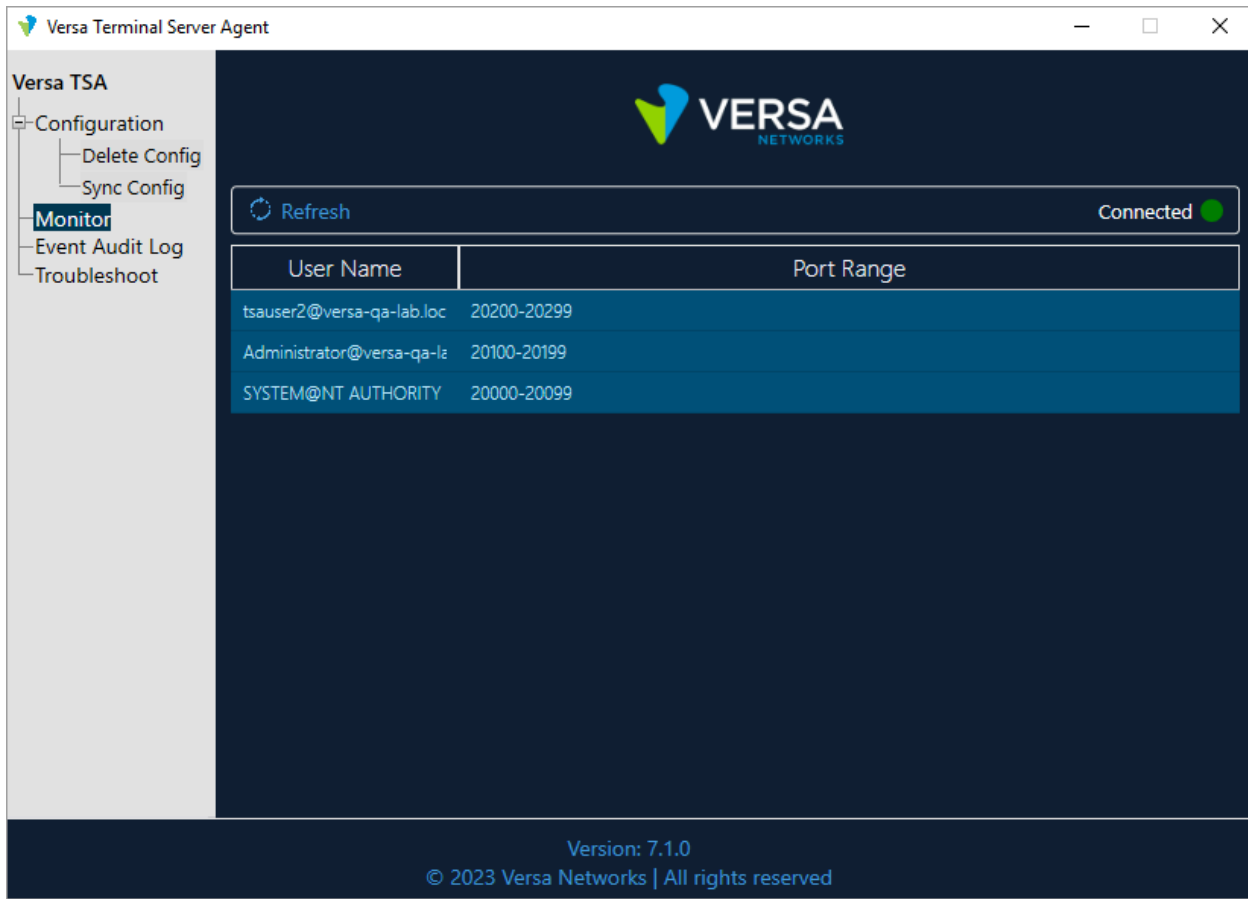
- Connecting (orange)—Displays when the terminal service agent is connecting to the server. For example:
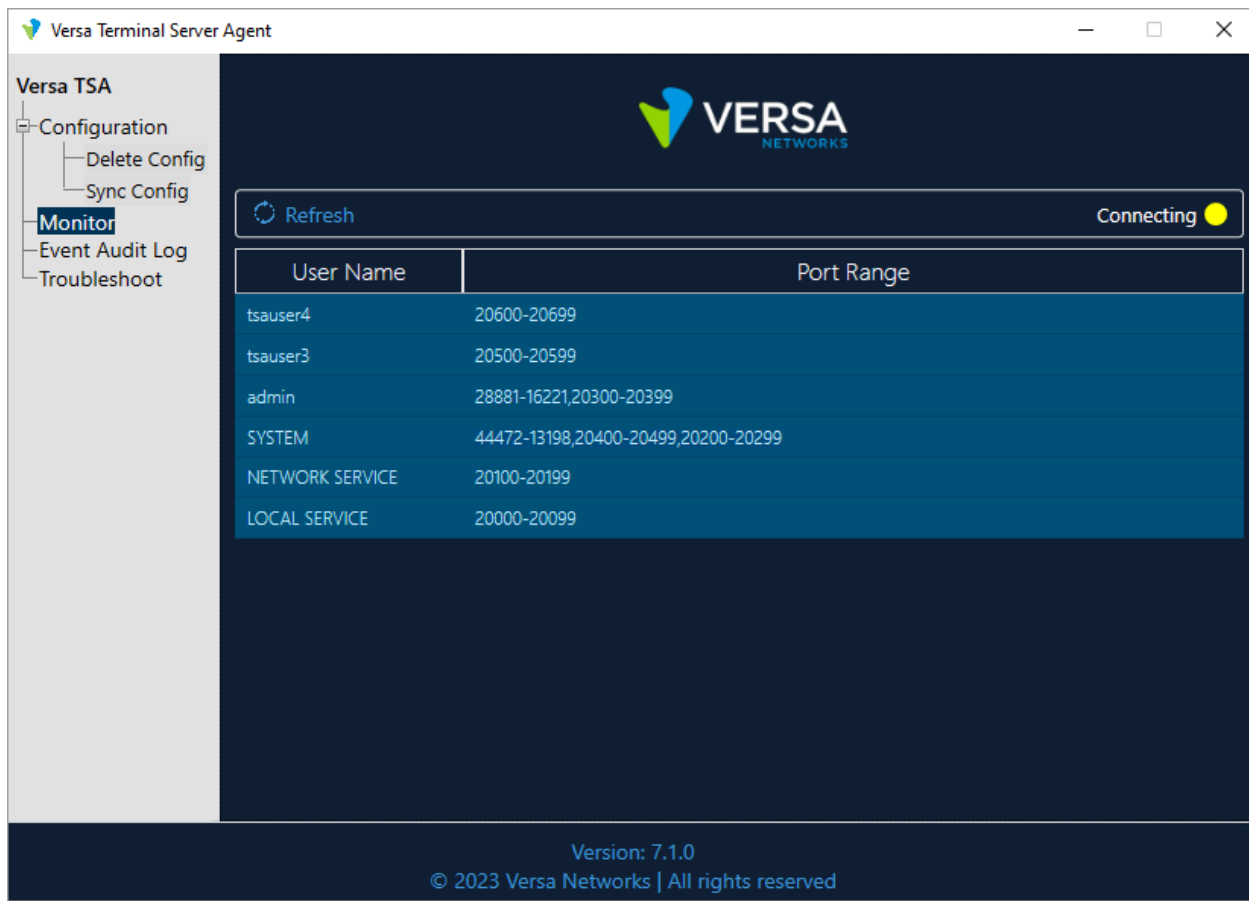
- Disconnected (red)—Displays when the terminal service agent is disconnected from the server. For example:
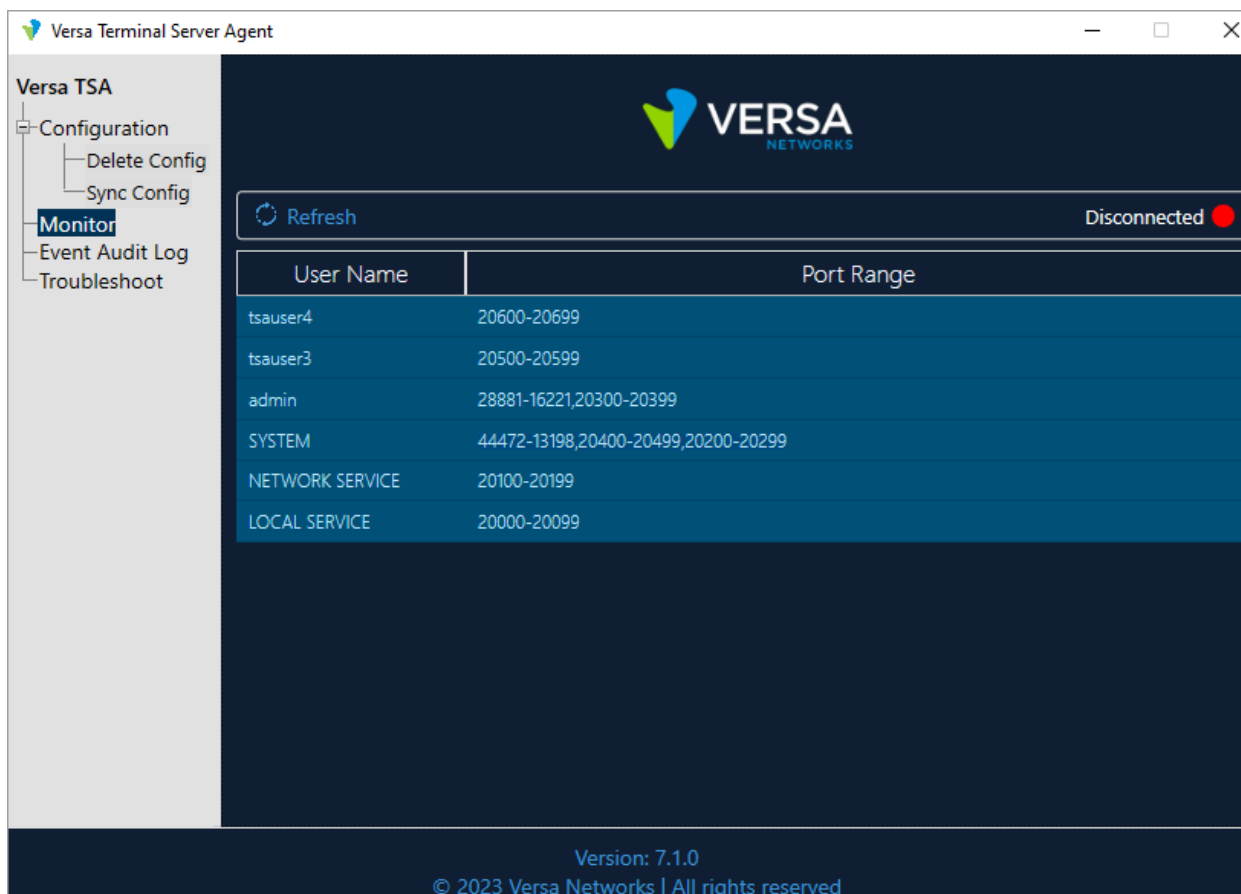
The Monitor screen also displays the user names and the port range assigned to each user.

Click Refresh to update the information.

View Event Audit Logs

1. Open TSA, and then click Event Audit Log in the left menu bar. The main screen displays the user name, event name, port ranges used by each user for each event, and date and time of the event.

2. Click Refresh to update the information.

3. To save the event logs, click Export.

4. Select a folder and save the log file on your computer. The log file is saved in JSON (.json) format.

Select Log Level and Export Logs

To save log files, you first select the severity of the logs to include and then you export the logs.

To select the log level:

1. Open TSA, and then click Troubleshoot in the left menu bar.
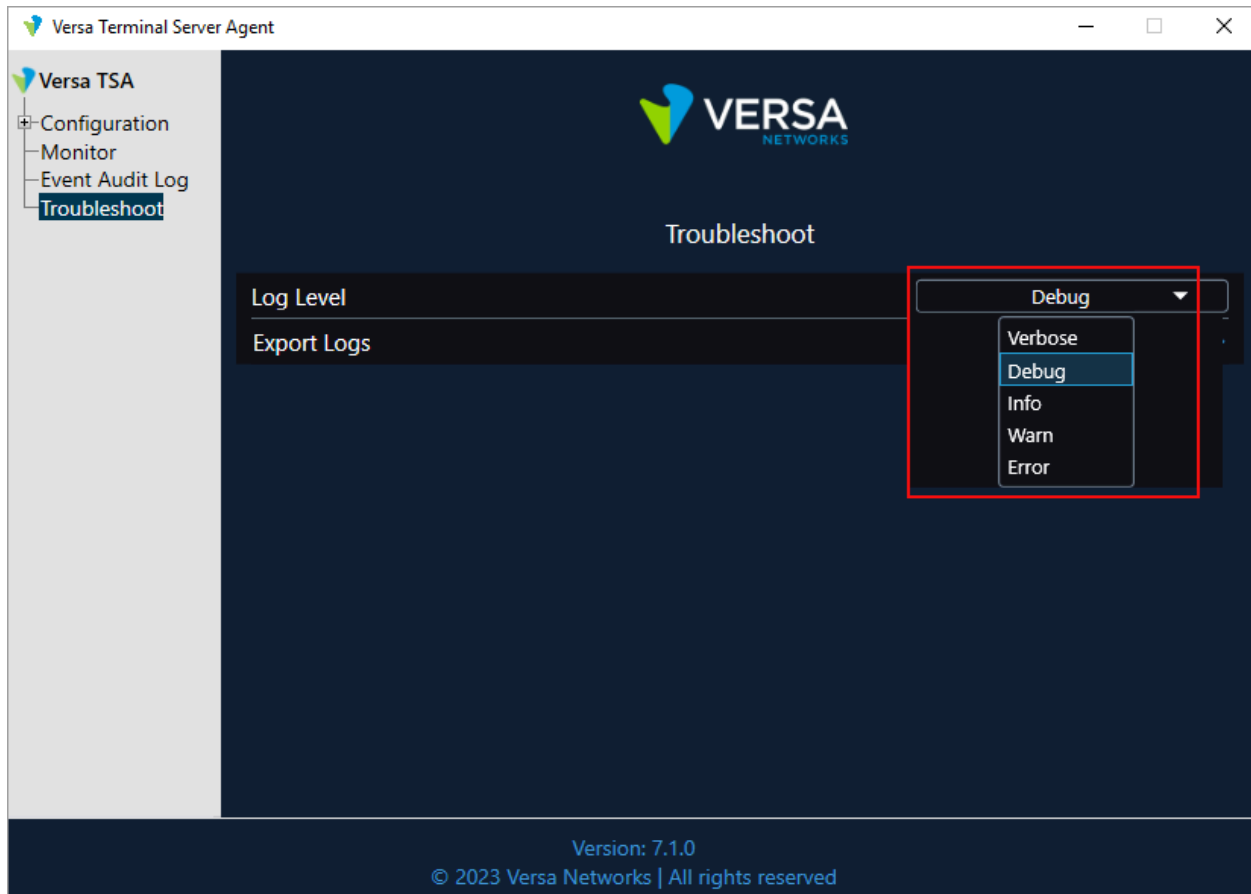
2. Click Log Level, and select a log severity level:
   - Debug—Log application debug-level information.
   - Error—Log error-level information.
   - Info (default)—Log informational-level information. This is the default.
   - Verbose—Log additional information during the interaction with the client user interface.
   - Warn—Log warning-level information.

To save log files:

1. In the Troubleshoot screen, click Export Logs.
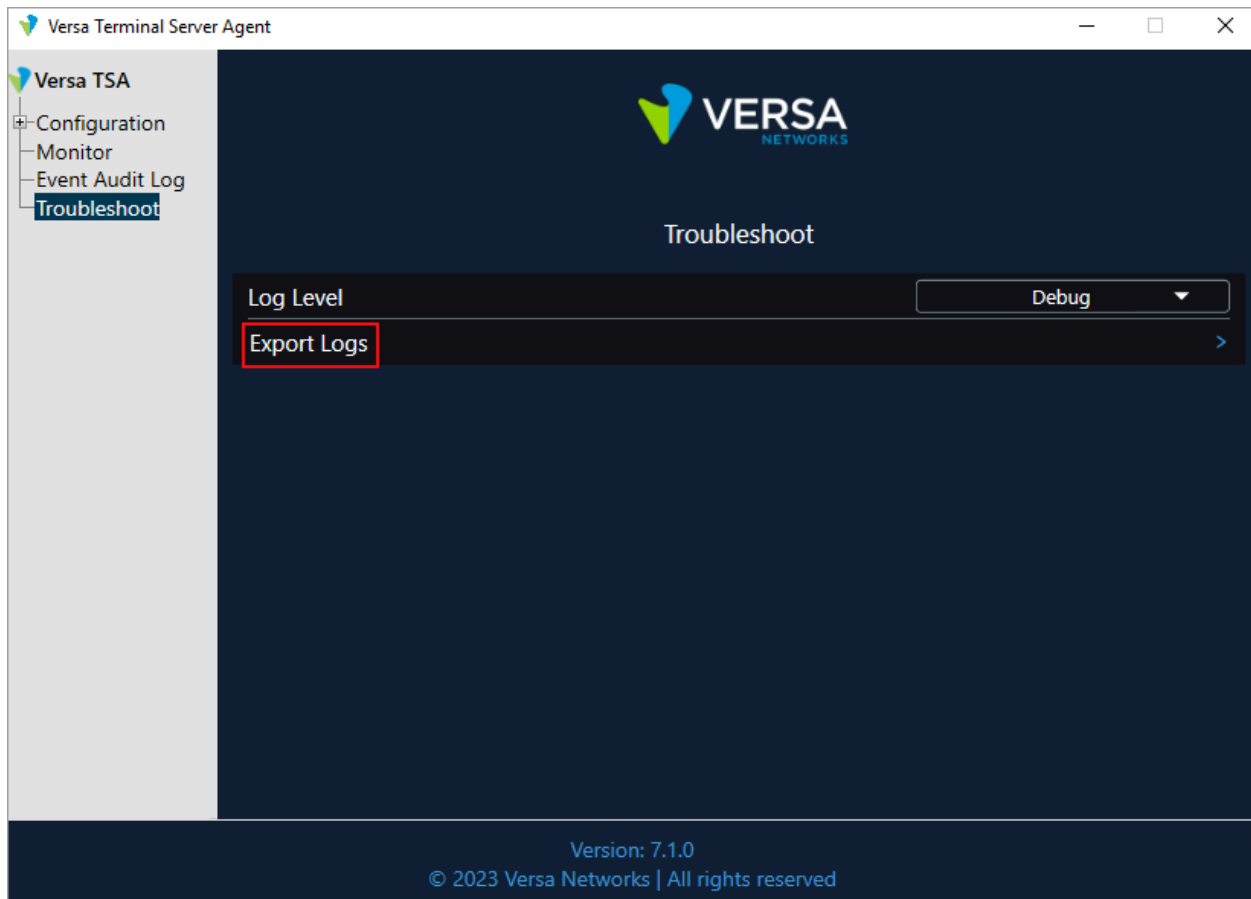
2. Select a folder and save the log file on your computer. The log file is saved in .zip format.

Supported Software Information

Releases 22.1.1 and later support all content described in this article.

Additional Information

Configure a Terminal Server Agent