INSTALLATION AND UPGRADE GUIDE

SolarWinds Platform

Version 2024.4

SOLARWINDS

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About installing or upgrading SolarWinds Platform products and scalability engines

When you download a SolarWinds Platform product from the Customer Portal or from www.solarwinds.com, the download includes the SolarWinds Installer and upgrade advisor. The installer is an all-in-one application for installations and upgrades. Use the installer to:

- **Pre-stage files**. Save time during an installation or upgrade by downloading the files in advance. Pre-staging files does not affect any existing SolarWinds Platform services.
- **Check your environment**. Before starting the installation or upgrade, the installer runs a system check to ensure your environment meets the system requirements for the selected products. If you need to make any changes, the installer provides guidance to resolve the issues.
- **Install one or more SolarWinds Platform products**. You need to download only one SolarWinds Installer, even if you plan to install or upgrade multiple products.
- **Upgrade existing products**. Each time you run the online installer in an existing deployment, the installer checks for hotfixes and new product versions. If you choose to upgrade, all products are upgraded to the latest compatible versions.
- **Install or upgrade scalability engines**, such as additional polling engines, additional web servers, and high availability servers.

  When you run the installer in an existing deployment, it automatically checks for scalability engines that need to be upgraded. If the scalability engines are reachable, the installer minimizes upgrade time by upgrading them in parallel.

  > To enable the primary SolarWinds Platform server to reach your scalability engines, do **not** stop the SolarWinds Administration Service on your scalability engines before the upgrade.

Installation overview

The following image provides an overview of the installation or upgrade process.

Always have the latest SolarWinds Installer

- If you are using the **online installer** and your server has an **Internet connection**, the SolarWinds Installer checks for updates when you start it, and the latest available version is automatically downloaded.

  If you see a progress bar for a SolarWinds Installer update, let it continue. When the download is complete, the new and improved installer starts automatically.

- If you are using the **offline installer**, or if your server does **not** have an Internet connection, the SolarWinds Installer cannot check to be sure you have the latest version. In that case, you should check the Customer Portal to make sure you have the latest version of the installer.

Next steps

Use the information in the following topics to install or upgrade SolarWinds Platform products and scalability engines.

If you need to	See
Prepare for an installation or upgrade	Resource Toolkit: Prepare to install or upgrade SolarWinds Platform products
Install your first SolarWinds Platform products	Install SolarWinds Platform products in a new environment
Upgrade products in an existing deployment	Upgrade an existing deployment
Install a new scalability engine	Install an additional polling engine, additional web server, or HA server
Install hotfixes or additional products in an existing deployment	Install a new SolarWinds Platform product in an existing deployment
Troubleshoot problems after an installation or upgrade	Troubleshoot the installation

For new SolarWinds Platform product installations in Amazon Web Services in a virtual private cloud (VPC), see Deploy SolarWinds Platform products to Amazon Web Services.

For new SolarWinds Platform product installations in Microsoft Azure in an Azure Virtual Network (VNet), see Deploy SolarWinds Platform products to Microsoft Azure.

You can deploy Orion Platform 2019.4 and later products using Azure Marketplace. For details, see Install SolarWinds Platform products using Azure Marketplace.

Resource toolkit: Prepare to install or upgrade SolarWinds Platform products

Use the following resources to plan your installation or upgrade and to prepare your environment.

Plan your installation or upgrade

Use this checklist to verify product requirements before you get started. The SolarWinds Installer will alert you to warning or critical level requirement issues during the System Check.

Installation and upgrade checklist
☐ Review product **release notes**: • EOC Current version | Previous versions • SolarWinds Observability Self-Hosted Current version | Previous versions • IPAM Current version | Previous versions • LA (formerly Log Manager) Current version | Previous versions • NCM Current version | Previous versions • NPM Current version | Previous versions • NTA Current version | Previous versions • SAM Current version | SAM previous versions • SCM Current version | Previous versions • SolarWinds Platform, SolarWinds Platform and Orion Platform Current version | Previous versions • SRM Current version | Previous versions • UDT Current version | Previous versions • VMAN Current version | Previous versions • VNQM Current version | Previous versions • WPM Current version | Previous versions

Installation and upgrade checklist

☐ Review **system requirements**.

> ⚠ SolarWinds strongly recommends that you install the SolarWinds Platform on a server that is **neither** public, **nor** internet-facing. To learn about best practices for configuring your SolarWinds Platform installation securely, see Secure Configuration for the SolarWinds Platform.

Use the following links and the multi-module environments guidelines to make sure your environment has all of the required hardware and software.

- DPAIM Current version | Previous versions
- EOC Current version | Previous versions
- SolarWinds Observability Self-Hosted Current version | Previous versions
- IPAM Current version | Previous versions
- LA (formerly Log Manager) Current version | Previous versions
- NCM Current version | Previous versions
- NPM Current version | Previous versions
- NTA Current version | Previous versions
- SAM Current version | Previous versions
- SCM Current version | Previous versions
- SolarWinds Platform, SolarWinds Platform and Orion Platform Current version | Previous versions
- SRM Current version | Previous versions
- UDT Current version | Previous versions
- VMAN Current version | Previous versions
- VNQM Current version | Previous versions
- WPM Current version | Previous versions

☐ Review **licenses**, gather **keys**, and review **maintenance status**.

Review your product licenses and maintenance status and determine if you need to make any changes. You can download license keys for your new SolarWinds Platform products through the Customer Portal. Discuss license upgrades with your SolarWinds account manager or contact SolarWinds.

☐ Gather **credentials**.

Make sure you have all account credentials, SolarWinds Platform database credentials, your SolarWinds account, and local admin server credentials.

Considerations for upgrades

The following situations can affect your upgrade process.

Do you need to migrate?

If product requirements have changed, you might need to migrate products and databases to new dedicated servers before you can upgrade to the latest version. Determine whether you need to migrate by reviewing new product requirements, performance, and company needs.

Migrating adds time to your upgrade, but upgrades provide a good opportunity to update your environment. See the Migration Guide for more information.

Do you have products out of maintenance?

If you have a product that is **out of maintenance** (that is, the license has expired), and you attempt to upgrade to product versions that run on the Orion Platform 2020.2 or earlier, the installer upgrades the product to the latest version that became available before maintenance expired **and** is compatible with other installed products.

Be aware that having an out-of-maintenance product can prevent you from upgrading products that are currently **under maintenance**. This occurs when the out-of-maintenance product is not compatible with the latest version of the SolarWinds Platform.

Example: You have IPAM out of maintenance. You want to upgrade NPM. Upgrading NPM would also upgrade the platform to a version that is incompatible with your version of IPAM. The installer reports the issue and suggests resolutions, but it does not allow you to upgrade NPM until the issue is resolved.

Recommendations:

- **Renew**. SolarWinds highly **recommends renewing**. Products under maintenance have access to technical support and all the latest upgrades.
- **Uninstall** the product that restricts your upgrade.
- **Move** the out-of-maintenance product to a different server. See the Migration Guide for details.

Prepare for an upgrade

Upgrade checklist	
☐	**Schedule** the upgrade. Set up the maintenance window, preferably during off-peak hours. Depending on the number of products, size of the databases, and size of the environment, you might need several hours to complete your installation. ⓘ If you upgrade or install new SolarWinds Platform products into an existing deployment, all SolarWinds services and polling must be offline for a length of time, causing you to lose a portion of polled data. When you upgrade an Orion Platform 2019.2 or later in an online environment, you can save time during the upgrade by pre-staging the installation files.
☐	**Notify your company** of the upgrade schedule and maintenance window.
☐	**Back up** your database and **snapshot** your VMs. Back up your SolarWinds Platform database. If you need help, check your vendor's site for instructions. If your SolarWinds Platform server is on a virtual machine, create a snapshot or copy of your VM. ⚠ You cannot roll back an upgrade. Always back up your database.
☐	If you have written **custom code**, back it up.

Prepare the servers

Depending on your licensed SolarWinds Platform products, you might need to prepare multiple servers and configure ports in your firewall before installation.

Server preparation checklist

☐ **Prepare servers** for your SolarWinds Platform products and deployment:

- **SolarWinds Platform server**: See your product's system requirements.
- **SolarWinds Platform database server**: See your product's system requirements.
- **Primary and secondary servers for SolarWinds high availability**: Review the HA requirements and VIP address information and prepare matching servers.
- **Additional polling engine servers**: See the SolarWinds Scalability Guidelines.
- **Additional web server**: See the SolarWinds Scalability Guidelines.
- **Additional databases**: During an installation or upgrade, the installer creates the following databases if they do not already exist:
  - The NTA Flow Storage database stores flow data.
  - The Log and Event database stores log data from Log Analyzer (LA) or Log Manager (LM).

  These databases can be on the same server as the SolarWinds Platform database, or they can be on different servers. For more information, see Databases used by SolarWinds modules.

  > When you are installing and configuring the **Log and Event database**, note the following:
  >
  > - SolarWinds recommends that you enable full-text search to ensure optimum event log search performance within LA. You can still initiate event log searches without enabling this capability, but the speed and quality of your search may be significantly reduced.
  > - Users may experience performance degradation if synchronous-commit mode for SQL availability groups is used on the Log and Event database. For high-load environments, asynchronous-commit mode is strongly recommended.

  Integrated products, such as **DPA** and **Patch Manager**, require a separate, dedicated database.

☐ Run all **Microsoft Windows updates**.

Before installation, check for and run any Windows updates on all servers. If a Windows update runs during the installation, your system might reboot. The installation cannot complete if your system is waiting to reboot.

Server preparation checklist	
☐	Open **required ports**. Open the ports required by your products and any additional features you have enabled. For example, SolarWinds high availability has additional port requirements beyond product needs. The SolarWinds Platform uses these ports to issue management commands and to send and receive data.

Gotchas for SolarWinds Platform products

Be aware of the following changes or considerations that frequently affect installations or upgrades. For information about product-specific issues that could affect upgrades, see your product's release notes.

- Installing SolarWinds Platform products and **Access Rights Manager** (ARM) on the same server causes a conflict with the RabbitMQ service. To avoid this, ARM and SolarWinds Platform products must be installed on separate servers. Note that ARM is **not** a SolarWinds Platform product.
- Carefully **review the port requirements** for your products. Incorrect ports can cause communication and polling issues. See the Port requirements for all SolarWinds products for details.

Next steps

- If you do not already have SolarWinds Platform products installed, see Install SolarWinds Platform products in a new environment.
- To upgrade products in an existing deployment, see Upgrade an existing deployment.
- To install a new scalability engine, see Install an Additional polling engine, Additional web server, or HA server in a SolarWinds Platform deployment.
- To install hotfixes or additional products for evaluation without upgrading, see Install a new SolarWinds Platform product in an existing deployment.

Install SolarWinds Platform products in a new environment

Complete the following tasks to install one or more SolarWinds Platform products on a server that does not already have SolarWinds Platform products installed.

- If you have already installed one or more SolarWinds Platform products, see Install a new SolarWinds Platform product in an existing deployment for information about activating **additional** products.
- If you're installing **EOC**, it must be installed on its own server. To install EOC, download the appropriate installer and run it, as described in the following sections. The installer automatically installs only EOC.

Before you start

Use the information in this topic to access system requirements and prepare your environment.

SolarWinds strongly recommends that you install the SolarWinds Platform on a server that is **neither** public, **nor** internet-facing. To learn about best practices for configuring your SolarWinds Platform installation securely, see Secure Configuration for the SolarWinds Platform.

Task 1: Get the installer

If you are **new to SolarWinds**, you can download a trial version of any product from the product page on https://www.solarwinds.com.

If you are a **SolarWinds customer**, download the SolarWinds Installer from the Customer Portal:

1. Log in to the Customer Portal.
2. Select a SolarWinds Platform product under Latest Downloads for Your Products, and click Choose.

   You need to download only **one** product module, even if you plan to install **multiple products**.

3. Click Download to download either the online or offline installer:
   - **Online**: Use this option if your SolarWinds Platform server has internet access. This option guarantees that you have an up-to-date installer with the latest optimizations and fixes.

     Also use online installation to install a scalability engine, even in environments without Internet access. Installing a scalability engine doesn't require Internet access. See Install an additional polling engine, additional web server, or HA server for details.
   - **Offline**: Use this option for installations without Internet access. The offline installer is a prepackaged file that includes everything you need.
4. Save the installer on your SolarWinds Platform server.

Task 2: Run the installer on the main SolarWinds Platform server

Some third-party software, such as .NET 4.8, is required. If it is not found on the server, it is downloaded and installed when you run the installer.

To minimize the time required to run the SolarWinds Installer, install .NET 4.8 on your primary SolarWinds Platform servers and all scalability engines before you run the installer.

1. Run the installer `.exe` file on your primary SolarWinds Platform server as Administrator.
2. On the Welcome page, click Start.
3. On the Installation Type page, click Standard Platform. Then click Next.

   To install a scalability engine, see Install an additional polling engine, additional web server, or SolarWinds Platform high availability server.

4. On the License Agreement page, review the EULA. If you agree, select the checkbox, and then click Next.
5. On the Installation Options page:
   a. Under SQL Server, select one of the following:
      - For a **standard** installation (for example, in a production environment), select Use SQL Server.

        A dedicated, separate SQL Server Standard or Enterprise database (physical or virtual machine) must be available on the SolarWinds Platform database server. For the requirements for the SolarWinds Platform database, see the SolarWinds Platform System Requirements. For Microsoft SQL Server installation instructions, see the SQL Server Installation Guide.

      - For a **lightweight** installation, select Install SQL Server Express.

        SQL Server Express is approved **only** for evaluations. This option installs SQL Server Express locally and then installs SolarWinds Platform products as quickly as possible using global settings. You select only the installation location and your preferred product language.

        SQL Server Express has a 10 GB storage limit, which is not sufficient for many SolarWinds Platform deployments. If you later require a larger database, you must migrate to a SQL Server Standard or Enterprise database.

   b. Choose the language.

      This cannot be changed later.

c. (Optional) If you do not want to install SolarWinds Platform products in the default location, browse to the desired location and select it.

> ⚠ SolarWinds Platform products cannot be installed on a remote mapped drive, read-only drive, compressed drive, or compressed HDD.

d. Click Next.

The installer performs a system check to ensure that your environment meets the minimum requirements and to look for any potential problems. The results of the system check are displayed on the Installation Report page.

6. On the Installation Report page:

a. Review the results of the system check. If any issues were found, the installer displays one or more messages:

- **Informational and warning messages** recommend actions and best practices to optimize performance. These do not block the installation.
- **Critical issues** describe changes that are required to support the products. These block the installation until they are resolved.

b. If any issues were found, click the ⓘ to see detailed information about the issue.

c. If there are issues that prevent installation, resolve them and click Retest to run the system check again.

d. Click Install to start the installation.

When the installation is complete, a confirmation message is displayed.

Task 3: Complete the Configuration Wizard

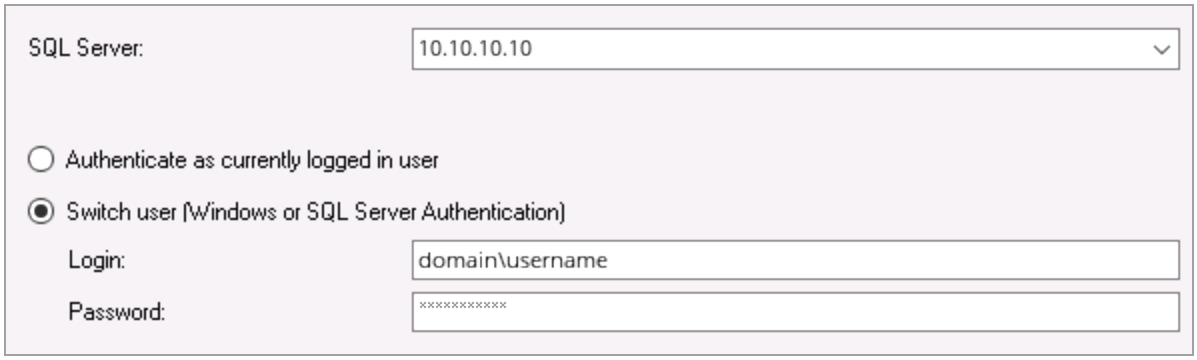
If database configuration is required, the Configuration Wizard automatically opens. Depending on your products, the wizard might include options and pages not described here.

1. On the Welcome page, click Next.
2. If prompted to stop services, click Yes.
3. If you performed a Standard installation with an existing SQL Server database, select one of the following for authentication:

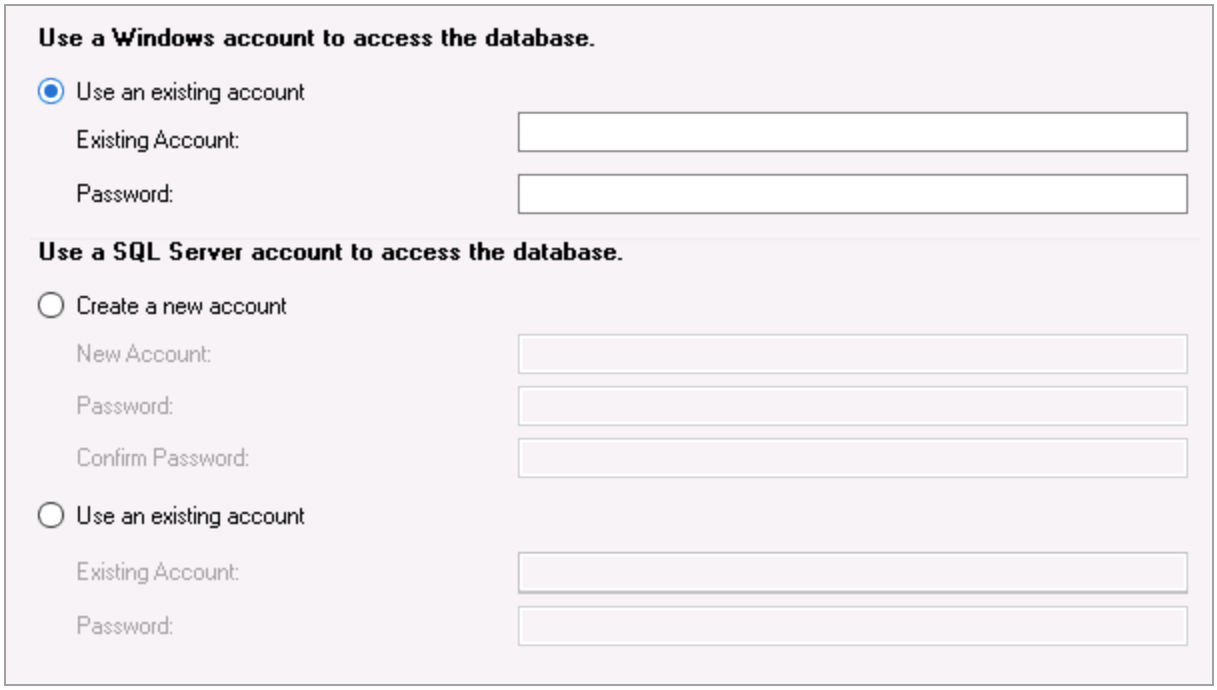
- **Authenticate as currently logged in user**: Pass through authentication to the database server using the account currently logged in for installing the SolarWinds Platform product.

- **Switch user**: Provide credentials automatically detected as either SQL or Windows credentials, allowing Windows authentication for the initial setup even if the SolarWinds Platform server is not joined to a domain or the current account does not have permissions to the database server.

If you intend to use Windows authentication for the SolarWinds Platform, remember to exempt that user account from any password change policies. An expired password will cause the SolarWinds Platform to stop data collection and interrupt SolarWinds Platform Web Console access.



4. On the Database Settings page, select your existing SolarWinds Platform database, or create a new database for a new installation, and click Next.
5. On the Database Account page, create an account or specify an existing account that the polling engine and SolarWinds Platform Web Console will use to access the database. The account can be a Windows or SQL Server account.

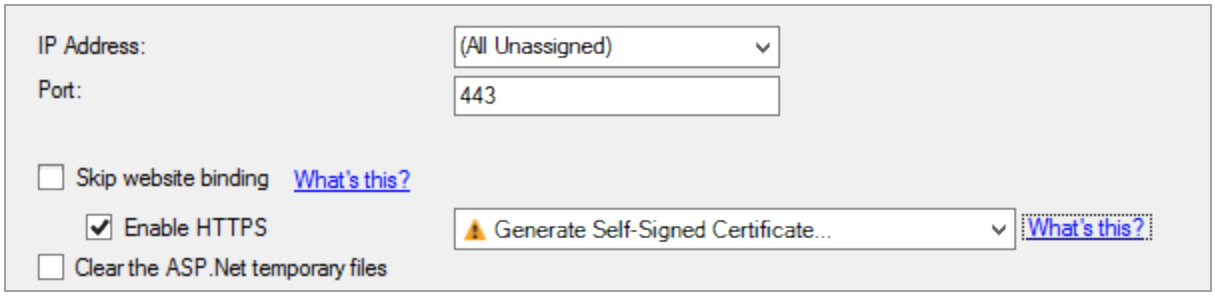


6. On the Website Settings page:
    a. Select All Unassigned unless your environment requires a specific IP address for the SolarWinds Platform website. If SSL is selected, port 443 is used. Otherwise, port 80 is used.
    b. Specify the Port.

    > If you specify any port other than 80, include that port in the URL used to access the SolarWinds Platform Web Console.

    c. To configure SSL, click Enable HTTPS and select your SSL certificate.

    If a certificate is not available, select the option to Generate Self-Signed Certificate. The Configuration Wizard automatically generates a self-signed certificate issued to the hostname or FQDN and adds it to the trusted certificate store.



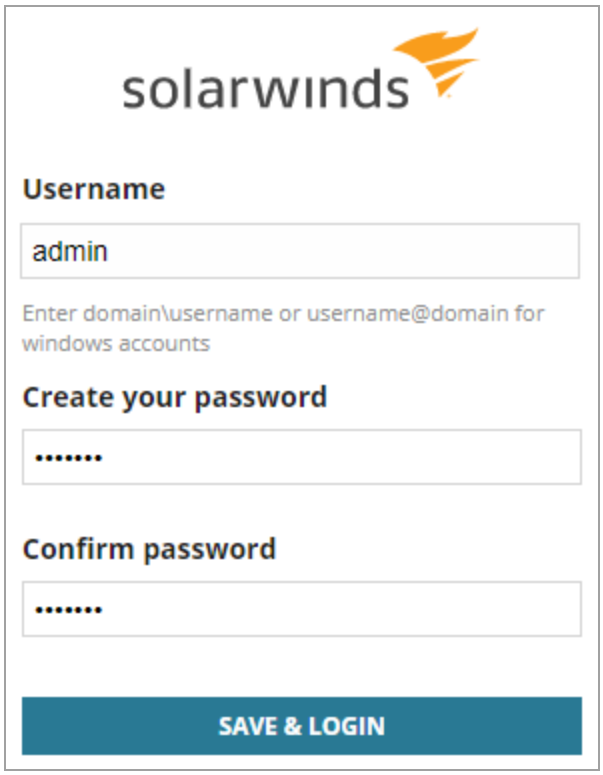
> If you select Skip website binding, the Configuration wizard does not make changes within the website configuration in your IIS. This option prevents IP address, port, and SSL certificate options.

7. If you are prompted to create a directory or website, click Yes.
8. Review the list of services to install, and click Next.
9. Click Yes if you are prompted to disable the SNMP Trap Service and enable the SolarWinds Trap Service.
10. On the Completing Configuration Wizard page, click Next.
11. When the configuration is complete, click Finish to launch the SolarWinds Platform Web Console.

If the SolarWinds Platform Web Console doesn't open automatically (for example, if it times out before opening), do one of the following to open it manually:

- Click Start > All Programs > SolarWinds > SolarWinds Platform Web Console.
- Open a web browser on your SolarWinds Platform server and enter `http://ipAddress` or `http://hostname`, where *ipAddress* is the IP address of your server and *hostname* is the host name of your server. Enter `https://` if you selected SSL.

12. Log in with user name `admin`. Enter a password for the admin account, confirm the password, and then click Save & Login.



Task 4: Activate licenses

Activate the licenses for your new products.

Get the license key for your product from the Customer Portal. You might need multiple licenses: one for each product, HA backup server, additional polling engine, and additional web server.

1. In the Customer Portal, select License Management.
2. Select the product.
3. Copy the license key.

Add and activate the license key using the web-based License Manager in the SolarWinds Platform Web Console.

1. Open the SolarWinds Platform Web Console in a web browser.
2. Click Settings > All Settings > License Manager.
3. Click Add/Upgrade License.
4. Enter the Activation Key and Registration Information, and click Activate.

To activate an offline license, see Activate licenses offline.

Install an additional polling engine, additional web server, or HA server in a SolarWinds Platform deployment

Use the SolarWinds Installer to install scalability engines (additional polling engines, additional web servers, and SolarWinds Platform High Availability backup servers).

Additional polling engines (APEs) or an additional web server can be used to increase the monitoring capacity of your SolarWinds Platform deployment. SolarWinds Platform High Availability (HA) provides a backup server to protect your main SolarWinds Platform server.

- For more information about options to scale your SolarWinds implementation, see Scalability Engine Guidelines for SolarWinds Platform products.
- For details about implementing SolarWinds Platform High Availability, see the full HA documentation.
- License stacking does not require installing a scalability engine. License stacking increases polling capacity by assigning multiple licenses to a polling engine.

Requirements and recommendations

Before you begin, be sure your scalability engine servers meet the following requirements:

- Installing an APE and an Additional web server on the same host is not supported.
- All APEs must be set to the **same time zone** as the SolarWinds Platform database server.

  If APEs and the SolarWinds Platform database server are set to different time zones, polled data can be confusing or misleading. For example, data can have a time stamp that is in the future.
- The main polling engine and the APE must be able to resolve each other's host names to an IP address.

Prepare for the installation

Before you install a scalability engine in your environment, complete the following actions:

☐	Install the **primary** SolarWinds Platform server first. Then install each APE.
☐	When you install an APE or Additional web server, verify the port requirements.
☐	If you are going to install a backup server for SolarWinds Platform High Availability, review the SolarWinds Platform High Availability requirements.
☐	Acquire a user name and password with administrative privileges to the SolarWinds Platform Web Console on your primary SolarWinds Platform server.
☐	Be sure the APE uses the same SolarWinds Platform database as the primary SolarWinds Platform server.
☐	Verify the latency between your SolarWinds Platform database server and the APE. Performance degradation can begin around 200 ms. Ping the SolarWinds Platform database server to find the current latency.
☐	If you have an alert with a Send Email action that runs against a node monitored by an APE, confirm that the APE can access your SMTP server.
☐	Add the IP address of your APE to Windows Servers on the Security tab. Make sure that the following options are set: • Ensure that a case-sensitive community name has been specified. • Ensure that Accept SNMP packets from any host is selected **or** ensure that the APE is listed within the Accept SNMP packets from these hosts list. • Ensure that your network devices allow SNMP access from the new polling engine. For example, on Cisco devices, you can modify the Access Control List.

Install the scalability engine

Task 1: Run the installer

Keep the SolarWinds services running on the main polling engine when installing an additional polling engine or Additional web server.

1. Run the installer `.exe` file on your scalability engine server as Administrator.

   The Welcome screen is displayed.

2. Click Start.

3. Under Installation Type, select Scalability Add-ons. Then click Next.
4. On the Server Connect screen, enter the following information, and then click Next:
   - IP address or host name of your primary SolarWinds Platform server
   - User name and password used to log in to the SolarWinds Platform server

   The installer connects to your SolarWinds Platform server and verifies compatibility.
5. Select the type of scalability engine to install, and then click Next.
6. Review the EULA. If you agree, click the accept option, and then click Next.
7. If you do not want to install the scalability engine in the default location, browse to the desired location and select it. Then click Next.

   ⚠ You cannot install on a remote mapped drive, read-only drive, compressed drive, or compressed HDD.

   The installer performs a system check to ensure that your environment meets the minimum requirements and to look for any potential problems. The results of the system check are displayed on the Installation Report page.
8. On the Installation Report page:
   a. Review the results of the system check. If any issues were found, the installer displays one or more messages:
      - **Informational and warning messages** recommend actions and best practices to optimize performance. These do not block the installation.
      - **Critical issues** describe changes that are required to support the products. These block the installation until they are resolved.
   b. If any issues were found, click the ⓘ to see detailed information about the issue.
   c. If there are issues that prevent installation, resolve them and click Retest to run the system check again.
   d. Click Install to start the installation.

      When the installation is complete, a confirmation message is displayed.

Task 2: Complete the Configuration Wizard

When the installation is complete, the Configuration Wizard opens automatically.

1. In the Welcome dialog box, click Next.
2. If prompted to stop services, click Yes.

3. On the Database Settings panel:
    a. Select your existing SolarWinds Platform database server.
    b. Select the authentication method used by your existing SolarWinds Platform database, and enter login credentials if necessary.
    c. Click Next.
4. If you receive a warning message that the user does not have permission to create a new database, click OK.
5. Select your existing database from the drop-down menu, and click Next.
6. If you receive a message that the user does not have permission to create a new database account, click OK.
7. Select your SQL Server account and enter your password.
8. At the SNMP Trap Service not disabled message, click Yes.
9. Click Next to start the configuration.

Task 3: For an APE, specify the nodes to be polled

If you installed an additional polling engine, specify which nodes you want it to poll.

Task 4: Activate the license

If you installed a scalability engine that requires a license, activate the license.

Options for upgrading scalability engines

When you upgrade your primary SolarWinds Platform server, you must also upgrade any additional polling engines (APEs), additional web servers (AWS), and high availability (HA) backup servers. The primary SolarWinds Platform server and all scalability engines must run the same version of the SolarWinds Platform. The following options are available for upgrading scalability engines.

Centralized upgrades

If you have Orion Platform 2019.2 or later, you can save time by performing a centralized upgrade to upgrade your SolarWinds Platform server and all scalability engines.

1. To minimize the time required to upgrade, you can **pre-stage** the installation files on your SolarWinds Platform server and all of your scalability engines. The installer downloads the required files to all reachable servers before you start the upgrade.

2. When you start the upgrade, the SolarWinds Installer contacts all reachable scalability engines and checks for any issues.

   If you did not pre-stage the files, they are downloaded to all reachable scalability engines when you start the upgrade.

3. The installer upgrades the SolarWinds Platform server and all reachable scalability engines in parallel. You can track the progress of all upgrades from the SolarWinds Platform Web Console.

For more information about performing a centralized upgrade, see this topic.

Individual upgrades

If centralized upgrades are not available to you, perform the following tasks to upgrade one or more scalability engines individually. For example, if a scalability engine is not reachable during a centralized upgrade, you can upgrade it individually after the issue is resolved.

1. Upgrade your primary SolarWinds Platform server.
2. Download the **online** installer from the Customer Portal or from either of the following locations in the SolarWinds Platform Web Console:
   - Settings > All Settings > Details > Polling Engines
   - Settings > All Settings > Product Specific Settings > Web Console Settings

   To upgrade a scalability engine, the online installer does **not** require Internet access.
3. Save the installer on each scalability engine.
4. Start the installer on each scalability engine and perform the upgrade.

   You can run the upgrades in parallel.

Upgrade an existing deployment

Use the following information to upgrade your existing SolarWinds Platform deployment.

If you experience issues using the SolarWinds Platform Web Console after an upgrade, clear your browser cache.

About centralized upgrades

When you perform a centralized upgrade of your entire deployment, you initiate the upgrade from your primary SolarWinds Platform server. Then your primary server and all scalability engines (additional polling engines, additional web servers, and HA backup servers) are upgraded in parallel.

If you do not have an existing deployment, see Install SolarWinds Platform products in a new environment

Supported upgrade paths

Use the following table to determine the upgrade path from your current version.

Current version	Upgrade path
2022.2 and later 2020.2.6	Upgrade directly to 2024.4. In 2024.2 and later, port 17778 port is disabled by default and replaced with port 17774.
2020.2.5	1. Download an installer for a SolarWinds Platform 2024.2.1 product from the Customer Portal, and use it to upgrade to SolarWinds Platform 2024.2.1. 2. Follow the instructions below to upgrade to 2024.4.
2020.2.4 2020.2.1	1. Download an installer for a SolarWinds Platform 2024.1.1 product from the Customer Portal, and use it to upgrade to SolarWinds Platform 2024.1.1. 2. Follow the instructions below to upgrade to 2024.4.
Earlier than 2020.2.1	1. Download an installer for an Orion Platform 2020.2.6 product from the Customer Portal, and use it to upgrade to Orion Platform 2020.2.6. 2. Follow the instructions below to upgrade to SolarWinds Platform 2024.4.

Considerations for upgrading from 2020.2.6 or earlier (Orion Platform) to 2024.4 (SolarWinds Platform)

Before upgrading from the Orion Platform to SolarWinds Platform 2024.4, be aware of the following:

- Before the upgrade, be sure to back up any custom files stored in the Orion installation directory and the Orion SDK directory.

  Upgrading from the Orion Platform to SolarWinds Platform 2024.4 **removes** your existing on-premises Orion deployment. Any custom files that are **not** backed up will be unavailable after the upgrade.

- Make sure the database user you use to connect to your SQL Server has the **db create** privilege. **Without this privilege, the upgrade will not complete.**

- SolarWinds Platform 2022.3 or later requires SQL Server 2016 SP1 or later. SQL Server 2012 and SQL Server 2014 are **not** supported for the SolarWinds Platform database. (For all requirements, see the system requirements.)
- In addition to the SolarWinds Platform database, the SolarWinds Platform requires a both an NTA Flow Storage database and a Log and Event database. If your Orion deployment did not include Network Traffic Analyzer and Log Analyzer, one or both of these databases are created during the upgrade. Before upgrading from Orion Platform 2020.2.6 and earlier to SolarWinds Platform 2024.4, make sure the database user you use to connect to your SQL Server has the DB create privilege. Without this privilege, the upgrade will not complete.
- The legacy syslog and traps functionality has been retired and replaced with a new functionality called SolarWinds Log Viewer, which can be upgraded to Log Analyzer for additional capabilities. During the upgrade, current rules and history are automatically migrated to the new logging functionality (SolarWinds Log Viewer or Log Analyzer).The current version supports almost all legacy syslog and trap functionality. A report lists any rules that include unsupported functionality and could not be fully imported.

  ⚠ If you built syslog and trap alerts using custom SQL queries, they will not function after upgrading to 2022.3 or later. SolarWinds recommends you rewrite the alerts using SWQL (`Orion.OLM entities`) or using the alerting functionality built into Log Viewer or Log Analyzer.

- Make sure all your legacy reports are migrated. You won't be able to access legacy reports and related tools after the upgrade. To migrate reports, use the Legacy Report Migration Tool.
- The implementation of time series widgets required changes to the SolarWinds Platform database. If you have custom reports or alerts that use custom poller statistics or multicast routing, they could be affected by these changes.

  ⓘ SolarWinds recommends using API calls instead of database queries to collect data for custom reports and alerts.

- If you are using CAC Authentication, you will need to adjust the CAC Authentication setup after the upgrade to Hybrid Cloud Observability 2022.2 or later. See Enable Smart Card (CAC/PKI) user authentication for Orion Web Console and complete Step 2: Secure the Site for Smart Card Authentication Access.

Before you upgrade

Use the information in this topic to access release notes and system requirements, and to prepare your environment.

- You can also prepare for an upgrade by using Orion Insights to perform a check on your current deployment environment and notify you of any issues.
- Go to the Upgrade Resource Center for detailed information to help you plan and implement your upgrade.

DPAIM and DPA 2023.4.300 or earlier

Previous versions of the SolarWinds Platform used port 17778 by default to receive information from DPA. Starting with 2024.2, port 17778 port is disabled by default and replaced with port 17774.

If you are using the DPA Integration Module (DPAIM) with **DPA 2023.4.300 or earlier**, be aware that DPA will not be able to send information on port 17774. To continue sending database information to the SolarWinds Platform, you can:

- Upgrade to DPA 2024.2 or later to switch to port 17774.
- Use Advanced Configuration to enable port 17778 on the SolarWinds Platform again.

See Specify the port DPA uses... for more information about your options.

Pre-stage installation files (optional)

To decrease the amount of time required to upgrade a large deployment, you can download the installation files to your main polling engine and all scalability engines **before** you start the upgrade. You can pre-stage the installation files hours or even days ahead of your maintenance window. Pre-staging the files does not interrupt monitoring or affect users' access to SolarWinds products.

Pre-stage files in an online environment

1. In the SolarWinds Platform Web Console, click Settings > My Deployment.
2. Click the Updates tab.
3. Click Update to start the installer.
4. Under Upgrade Type, select Download installation files, and click Next.

   Installation files are downloaded to your main polling engine.
5. Click Launch.
6. On the Updates tab, click Download files.

   The Upgrade Wizard connects to any scalability engines to verify that they are reachable.

   If any scalability engines are unavailable, a message tells you which server cannot be reached. The systems check can provide additional information about the issue.

7. Click Next to start the systems check.
8. On the System Check page, review the information under System Check Results.

   Issues found during the system check do not block pre-staging. However, if a server does not have enough space for the installation files, be sure to resolve the issue before you continue.

   If other issues are found you can continue pre-staging files, and then investigate and resolve the issues before starting the upgrade.
9. Click Download Now to pre-stage the files.

   The pre-staging operation runs in the background and displays a message when it is complete.

Pre-stage installation files in an offline environment

1. Get the latest version of the offline installer.

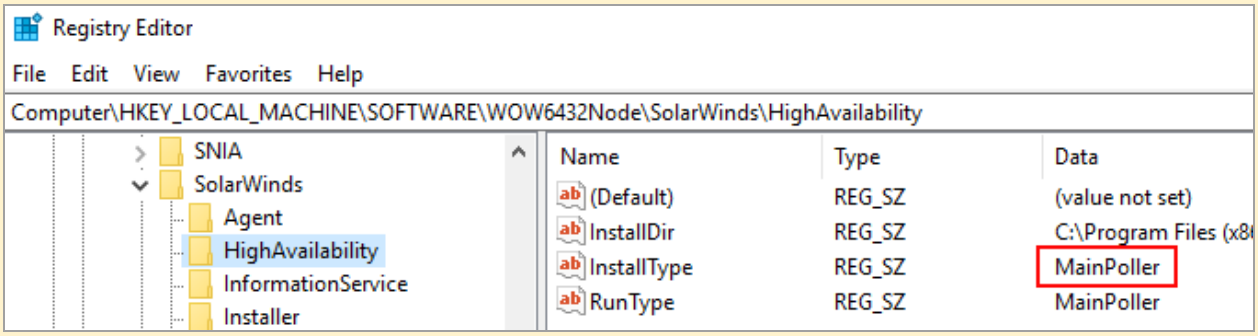
   > In an offline environment, the installer cannot determine if a newer version of the installer is available. To ensure that you are getting the latest hotfixes and features, always download the latest version of the installer.

   a. From a computer with Internet access, log in to the Customer Portal.
   b. Select a product under Latest Downloads for Your Products, and click Choose.
   c. Click Download to open the Product Downloads page, and then click Download in the offline installer row.
   d. Copy the installer to your SolarWinds Platform server.
2. Run the installer `.exe` file on your primary SolarWinds Platform server as Administrator.

   If the installer detects one or more scalability engines, the option to pre-stage files is displayed.

   > The option to pre-stage files is available **only** if you run the installer on your primary SolarWinds Platform server and it detects one or more scalability engines.

If HA is configured, be sure to run the installer on your primary SolarWinds Platform server, not a backup server. To verify, open the Windows Registry Editor and expand `Hkey_Local_Machine > Software > Wow6432Node > SolarWinds`. Then click on `HighAvailability` and verify that the `InstallType` is `MainPoller`.



3. Under Upgrade Type, select Download installation files, and click Next.

   Installation files are downloaded to your main polling engine.

4. Click Launch.
5. On the Updates tab, click Download files.

   The Upgrade Wizard connects to any scalability engines to verify that they are reachable.

   If any scalability engines are unavailable, a message tells you which server cannot be reached. The systems check can provide additional information about the issue.

6. Click Next to start the systems check.
7. On the System Check page, review the information under System Check Results.

   Issues found during the system check do not block pre-staging. However, if a server does not have enough space for the installation files, be sure to resolve the issue before you continue.

   If other issues are found you can continue pre-staging files, and then investigate and resolve the issues before starting the upgrade.

8. Click Download Now to pre-stage the files.

   The pre-staging operation runs in the background and displays a message when it is complete.

Upgrade your deployment

When you are ready to upgrade, complete the following tasks.

Task 1: If you are upgrading with HA, disable the HA pool

The HA pool must be disabled to upgrade. If you upgrade without disabling it, the pool is automatically disabled.

1. In the SolarWinds Platform Web Console, click Settings > My Deployment.
2. Click the Servers tab to access the High Availability Deployment Summary.
3. Select all pools, and toggle High Availability to Off.

Do not modify the VIP, IP address, or virtual host settings for the servers.

Task 2: Stop services on all additional polling engines and web servers

If the required SolarWinds services are not stopped on APEs and AWSs before the upgrade, the SolarWinds Installer attempts to stop them. To ensure a smooth upgrade, SolarWinds recommends that you stop the required services before upgrading.

1. In the SolarWinds Platform Web Console, click Settings > All Settings.
2. Under Product Specific Settings, click Service Manager.

   Alternatively, open the stand-alone Service Manager. To do so, open the Windows Start menu, and click SolarWinds Platform > SolarWinds Platform Service Manager.

3. Stop all services listed in the SolarWinds Platform Service Manager on all additional polling engines and all web servers.

If you use the Windows Control Panel to stop services, do **not** stop the SolarWinds Administration Service on your scalability engines. If you stop the SolarWinds Administration Service, the installer cannot reach the scalability engines to upgrade them in parallel.

Services are restarted automatically when the upgrade is complete.

Task 3: Start the upgrade

Some third-party software, such as .NET 4.8, is required. If it is not found on the server, it is downloaded and installed when you run the installer.

To minimize the time required to run the SolarWinds Installer, install .NET 4.8 on your primary SolarWinds Platform servers and all scalability engines before you run the installer.

1. In the SolarWinds Platform Web Console, click Settings > My Deployment.
2. Click the Updates tab.

If your main polling engine is not on the latest version and your scalability engines are on an even earlier version, you have two options:

- You can update the scalability engines to the version that the main polling engine is running.
- You can update your entire deployment (main polling engine and scalability engines) to the latest version.

3. Click Update.

   The installer verifies that all servers can be reached, and reports any issues. When you are ready to start the upgrade, click Next.

4. Review the EULA. If you agree, click the checkbox, and then click Next.
5. Click Next to start the systems check.

   The Installation Report page asks you to confirm that you backed up your database.

6. Under System Confirmation, if you have backed up your database, click the button and then click Confirm.

   > If not, you should back up now. New products and versions can modify your database tables. Click here for information about SolarWinds Backup.

7. On the Installation Report page, review the information under System Check.

   The installer runs a series of checks per product to verify that your servers meet system requirements and recommendations. If your environment does not meet specifications, the installer displays one or more messages:

   - **Informational and warning messages** recommend actions and best practices to optimize performance. These do not block the installation.
   - **Critical issues** describe changes that are required to support the products. These block the installation until they are resolved.

8. Investigate and resolve any issues:

   - Click the details link to display additional information and suggested resolutions.
   - Optionally, to print the list of issues, click Print results.
   - After resolving any blocking issues, click Re-check.

9. Click Next to start the installation.

If you pre-staged the installation files, the installer verifies that you have the most recent versions. If an updated version is available, the installer notifies you. SolarWinds recommends downloading the latest version. To minimize the download time, the installer downloads **only** the updated files, not everything.

After the installer is downloaded to all servers, they are upgraded in parallel. Your primary SolarWinds Platform server is down while it is being upgraded, and so the SolarWinds Platform Web Console is not available. You are redirected to a Web page where you can monitor the progress of the upgrade.

When the primary SolarWinds Platform server has been upgraded, you are returned to your SolarWinds Platform Web Console.

10. When the upgrade is complete, click Finish.

Task 4: Upgrade SolarWinds Agents

If the Allow automatic agent updates setting is enabled (default option), the SolarWinds Agents are automatically upgraded in the background. Agents are tied to their release version. You can skip manually upgrading agents if the option is enabled.

To enable the option to allow automatic agent updates:

1. Click Settings > All Settings.
2. Under Product Specific Settings, click Agent & Remote Collector.

   On Orion Platform 2020.2 and earlier, click Agent Settings.
3. Click Define Global Agent Settings, and select Allow automatic agent updates.

The upgrades take some time to complete but do not require any actions. Agents are upgraded at a throttled number of 10 at a time to limit the impact on the polling engine. As soon as one agent upgrade is complete, another agent takes its place so there are always 10 active threads until all agents are upgraded.

On operating systems that support .NET Framework 4.8, all Windows Agent Plugins are migrated to .NET 4.8. For more information, see ".NET Framework support" in the agent requirements.

If automatic upgrades are **disabled**, upgrade the Orion Agents:

1. Open the Manage Agents page. Orion Agents requiring upgrades display the message `Update Required`.
2. Select all agents needing updates and click More Actions > Update. The agents are upgraded in the background.

Task 5: If you are upgrading with HA, enable the HA pool

When the installation is complete, enable the HA pool using the following instructions. You might need to recreate the HA pool.

1. In the SolarWinds Platform Web Console, click Settings > All Settings > High Availability Deployment Summary.
2. Select the pool you want to enable.
3. Toggle High Availability to On.

The SolarWinds Platform Web Console verifies all SolarWinds product versions match across the HA pair before enabling. If you receive errors, check your product versions.

> If you upgraded to the latest version of the SolarWinds Platform, but antivirus software continues to detect an affected `SolarWinds.Orion.Core.BusinessLayer.dll` as being present on your SolarWinds Platform server, see this article for more information and a resolution.

Install a new SolarWinds Platform product in an existing deployment

When you install additional SolarWinds Platform products into an existing deployment, you can choose to upgrade all products to the latest version. Or you can install a new product **without** upgrading your existing products. This option is available if your SolarWinds Platform deployment meets the following conditions:

- Your existing products run on Orion Platform **2019.4** or later.
- Your products run in an online environment.

  > If your products run in an offline environment, you must download the offline installer from the Customer Portal.

> For more information about the SolarWinds Installer and other installation or upgrade options, see About installing or upgrading SolarWinds Platform products and scalability engines.

Before you start

If you are installing additional products, use the information in this topic to access system requirements and prepare your environment.

SolarWinds Platform 2022.2 and later

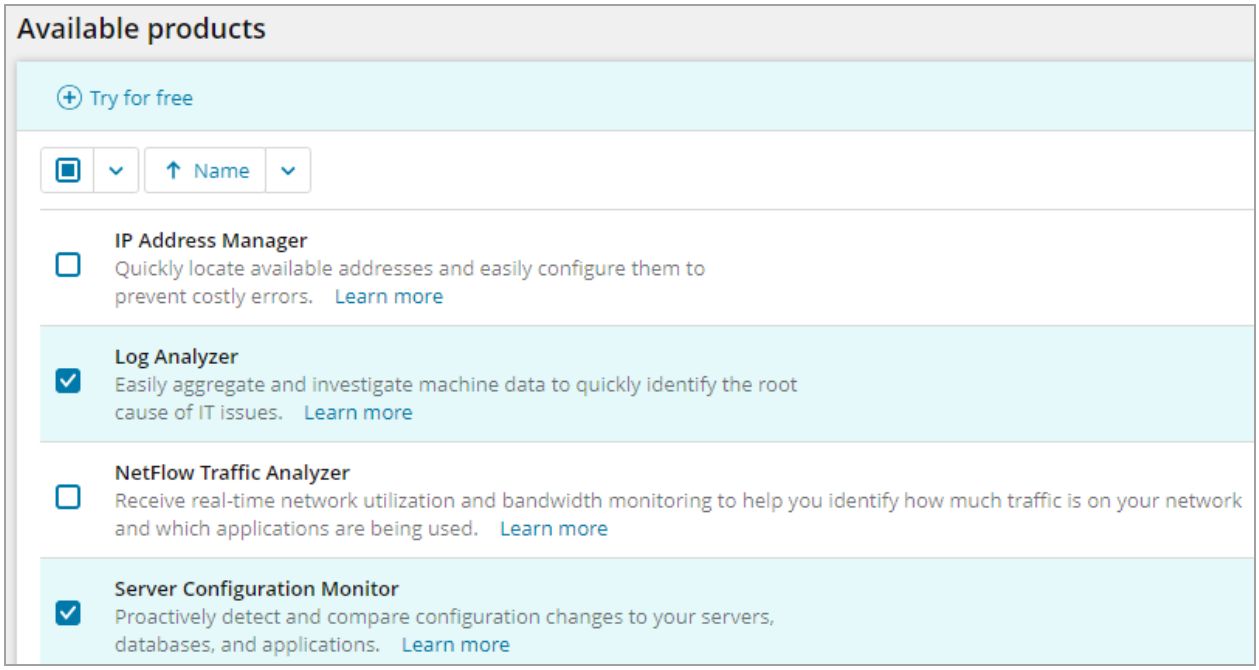
All SolarWinds Platform products are installed with the platform, and the products you have licenses for are available to you. You can evaluate other products by activating them from the License Manager page.

1. In the SolarWinds Platform Web Console, click Settings > All Settings.
2. Under Details, click License Manager.

   The License Manager page lists your licensed products and any evaluations (both active and expired). The right pane lists other SolarWinds Platform products that you can choose to install for evaluation.

   > The **evaluation version** of a product is a full version of the product, functional for 30 days. After the evaluation period, you can convert your evaluation license to a production license by obtaining and applying a license key. Contact SolarWinds sales to purchase a full license. To activate the license, see Activate licenses.

3. To view the entire list of products, click See all *n* available products.
4. Select the check box next to each product you want to evaluate.



5. Above the list, click Try for free.

   A dialog prompts you for registration information.

6. Enter your email and other registration information, and click Try for free.

The evaluation products are activated. They are added to the list of products on the License Manager page.

Orion Platform 2020.2 and earlier

In the Orion Platform Web Console, you can install hotfixes, patches, or additional Orion Platform products from the Updates & Evaluations tab.

1. In the Orion Web Console, click Settings > My Orion Deployment.
2. Click the Updates & Evaluations tab.

   The tab lists all available updates, including hotfixes and new versions, and provides links to release notes. It also lists other Orion Platform products that you can choose to install for evaluation.

   The **evaluation version** of a product is a full version of the product, functional for 30 days. After the evaluation period, you can convert your evaluation license to a production license by obtaining and applying a license key. Contact SolarWinds sales to purchase a full license. To activate the license, see Activate licenses.

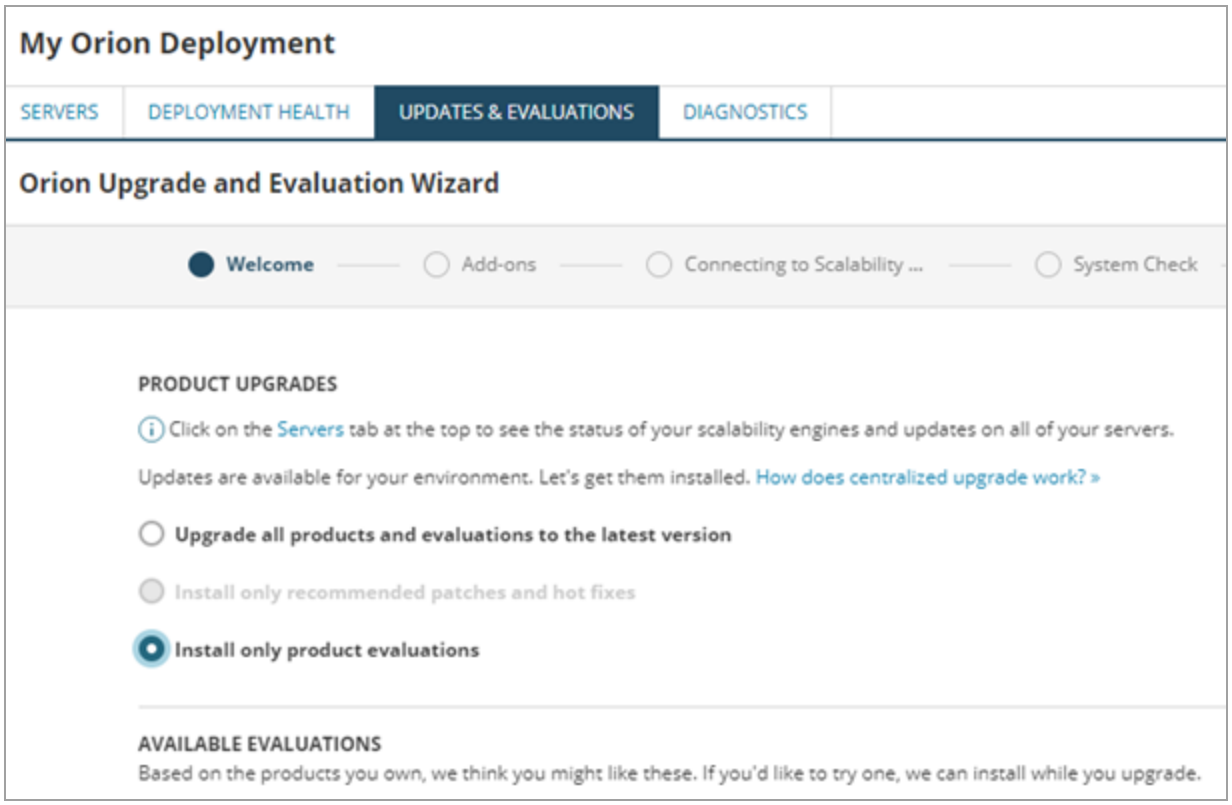
3. Select one of the following options:

   - Install only recommended patches and hot fixes

     Use this option to install patches and hot fixes for existing products without upgrading to the latest version.

   - Install only product evaluations

     Use this option to install additional Orion Platform products without upgrading your existing products. This option installs versions of the selected products that are compatible with your existing Orion deployment.



4. If you are installing additional products, select the products to install from the Available Evaluations section.
5. Click Next.
6. Follow the onscreen instructions to complete the installation.
7. When the installation is complete, click Finish.

Troubleshoot a SolarWinds Platform product installation

General troubleshooting tips

If you receive errors after you run the SolarWinds Installer, try the following:

- If you experience issues and are not on the latest product versions, SolarWinds recommends upgrading all products to the latest versions.
- Check our Success Center for troubleshooting. SolarWinds recommends searching the name of the product, the version number, any error codes or messages displayed, and the general issue you found.
- Check your Customer Portal for any new hotfixes.

- Use Orion Insights to perform a check on your current deployment environment and notify you of any issues.

Connection issues

If your SolarWinds Platform server has problems connecting to scalability engines during a centralized upgrade:

- Perform a ping test (or use another method) to verify that the scalability engine server is up and can be reached from the SolarWinds Platform server.
- Verify that port 17777 is open for both inbound and outbound traffic.

  > See SolarWinds Platform requirements for a complete list of SolarWinds Platform server port requirements.

- If both of those conditions are met, see Troubleshoot connection issues during centralized upgrade for additional tips.

Upgrade issues

- If your network has very little bandwidth or extremely high latency between the main polling engine and the scalability engine servers, centralized upgrades might fail. In this situation, you can manually copy the installer file to the scalability engine servers, and then run the centralized upgrade.
- You canceled an upgrade, and then you receive the following error when you try to run the upgrade later:

  ```
  Another Installation Session is still Active. You have to disable it first.
  ```

  To resolve this issue:

  1. Open the Database Manager and access the SolarWinds Platform database.
  2. Select the `SWA_InstallationSession` table and execute the default query to return rows from it.
  3. If any of the check boxes in the `IsActive` column are selected, enable table editing, clear the boxes, and disable table editing.
  4. Restart the SolarWindsAdministration service.

- If you receive (500) internal server error after an upgrade, use the Orion permission checker to make sure your Group Policy is not locked. See this article for details.

- If your views are not loaded when you first open the SolarWinds Platform Web Console, run the Configuration wizard again.

Need more help?

If you need additional help with an issue, contact Support. We recommend gathering diagnostics, a screenshot of the issue, and any error codes you receive. Attach and add this information to your ticket. You might also want to gather additional diagnostics on your additional polling engines and additional web servers.