

Stratusphere™

Upgrade Guide

6.6.2-2 and higher to the latest 6.6.2-x

Release 6.6.2-6

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This guide has been authored by experts at Liquidware to provide information and guidance concerning Stratusphere™.

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Liquidware Labs, Inc.

3600 Mansell Road
Suite 2000
Alpharetta, Georgia 30022
U.S.A.

Phone: 678-397-0450

Web: www.liquidware.com

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Upgrade Guide 6.6.2-2 and higher to the latest 6.6.2-x

This document is meant for Stratusphere Administrators who need to perform an upgrade of their existing Stratusphere 6.6.2-2 and higher to the latest 6.6.2-x version.

If your appliances are running the 6.6.0-1 version, refer to the [Stratusphere Upgrade Guide: 6.6.0-1 to the latest 6.x](#).

If your appliances are running the 6.5.1-2 version, refer to the [Stratusphere Upgrade Guide: 6.5.1-2 to 6.6.0-2](#) (PDF format only). After you have upgraded to 6.6.0-2, upgrade to Stratusphere UX 6.6.2-2 using the instructions in [Stratusphere Upgrade Guide: 6.6.0-2 to 6.6.2-2](#). Then follow the instructions below to upgrade to 6.6.2-2.

If your appliances are on version 6.5.1-1 or earlier, refer to the [Stratusphere Migration Guide to 6.6.2-x Appliances](#).

The existing 5.8.6 or higher version CID Keys and Network Stations already deployed will continue to function and upload data to the new Stratusphere 6.6.2-x appliances. The 5.8.x Network Stations cannot be upgraded to 6.6.2-x Collectors but are still compatible with Stratusphere 6.6.2-x Hubs and can be replaced in a phased manner. Liquidware strongly recommends using the latest Stratusphere appliances and CID Key agents for security and higher scale installations. After the 6.6.2-x Collectors are deployed, the CID Keys, in turn, can be configured to auto-upgrade themselves to the 6.6.2-x version through a simple configuration option within the Administration Web UI.

If you run into issues during the upgrade, refer to the [Troubleshooting](#) section of this document for assistance.

Order of Upgrading Stratusphere Appliances

Beginning with Stratusphere 6.6.2-2 and higher, the high-level process for upgrading Stratusphere appliances involves the following steps:

1. Power down all Stratusphere appliances to re-evaluate and reallocate resources such as CPU, RAM, and Storage based on your latest monitoring and diagnostic requirements by using the Stratusphere Sizing Guide. Liquidware strongly recommends taking snapshots of the appliances.
2. Power on the Hub, Database, and Collector appliances.
3. Log in to the Web UI's **Administration** section.
4. Navigate to the **Hub Administration > Upgrades** tab.
5. Upload the upgrade image so that the appliances can use this image to upgrade to the latest version.
6. Install the upgrade. The upgrade process will update the Database (if attached) and then upgrade the Hub. The appliances might reboot as part of the upgrade process.
7. Upgrade the Collector Appliances using the Web UI or the command line console. The Collectors will reboot themselves after they have been upgraded.

Note: Liquidware considers legacy 5.8.x Network Stations to be disposable appliances. When you want to replace legacy Network Stations with 6.6.2-x Collector appliances OR where some Collectors do not upgrade, they can be powered off, then removed from the Web UI. A brand-new 6.6.2-x Collector appliance can then be downloaded and installed in its place, using the same IP Address, hostname, and DNS names. Make sure that the legacy Network Station is removed from the Web UI prior to trying to add a replacement 6.6.2-x Collector with the same network configuration and host name back to the Stratusphere installation.

8. For persistent machines, enable the **Auto-upgrade** option under the Stratusphere **Hub Administration > Connector ID Key Properties** tab. For non-persistent machines, download the updated CID Key agent installer within the Web UI and use the appendixes within the [Stratusphere Installation & Configuration Guide](#) to update agents on gold images.

Upgrading Stratusphere Appliances

Important: The following section applies specifically to Stratusphere appliances running Stratusphere **6.6.2-2 and higher ONLY**.

If your appliances are running the 6.6.0-1 version, refer to the [Stratusphere Upgrade Guide: 6.6.0-1 to the latest 6.6.2-x](#).

If your appliances are running the 6.5.1-2 version, refer to the [Stratusphere Upgrade Guide: 6.5.1-2 to 6.6.0-2](#) (PDF format only). After you have upgraded to 6.6.0-2, upgrade to Stratusphere UX 6.6.2-2 using the instructions in [Stratusphere Upgrade Guide: 6.6.0-2 to 6.6.2-2](#). Then follow the instructions below to upgrade to 6.6.2-2.

If your appliances are on version 6.5.1-1 or earlier, refer to the [Stratusphere Migration Guide to 6.6.2-x Appliances](#).

Preparation

To prepare for the upgrade, complete the following steps for each **6.6.2-2 and higher** appliance:

1. On a local desktop with access to the Internet, download the Stratusphere upgrade image by clicking the following link:
<https://cdn.liquidware.com/stratusphere/releases/stratusphere-6.6.2-6.img>
2. **(Strongly recommended)** Use the online [Stratusphere Sizing Guide](#) to resize your Stratusphere appliances appropriately to reduce the chance of data loss.
 - a. Power down all Stratusphere appliances: Hub, Database, and Collectors.
 - b. Edit the appliance settings for each appliance and update them based on the Stratusphere Sizing Guide recommendations.

Important: VMware vSphere Virtual Machine Hardware Version

Due to recently published vulnerabilities, such as Spectre & Meltdown, VMware recommends upgrading the virtual machine hardware to the latest version supported by your vSphere infrastructure. While the Stratusphere appliances are powered down, upgrade their virtual machine hardware to version 10 or higher, as supported by the vSphere infrastructure. Refer to the VMware knowledge base article, "[Upgrading a virtual machine to the latest hardware version \(multiple versions\)](#)" for upgrading virtual machine hardware versions.

3. **(Recommended)** Take a snapshot of the Hub, Database, and Collector appliances.
4. Power up all your Stratusphere appliances: Hub, Database, and Collectors.

5. **(Recommended)** Keep the local appliance consoles of the Stratusphere Hub, Database, and Collector open during the upgrade process. This is helpful because the user can observe the upgrade status, reboot activity, and uptime on the console status screens.

Upload Update

To upload the update, complete the following steps:

1. Log in to the **Administration** section of the Stratusphere Hub Web UI.
2. Navigate to the **Hub Administration > Upgrades > Offline** tab.
The screen displays a page with either a **Browse** or **Choose File** button depending on your browser.
3. Click the **Browse** or **Choose File** button, navigate to the location where the `stratusphere_6.6.2-x.x-x.img` file was stored when you downloaded it from the link above. Select the file, then open it.
4. Click the **Upload Update** button. A progress bar with the message **“Upload in Progress (This may take several minutes)”** will be displayed as the upgrade image is uploaded to the Hub. Depending on your network connection it might take a long time to upload.
After the upload finishes, the progress bar displays the message **“Download Completed. Verifying Image,”** indicating that the Hub is verifying the integrity of image file that was uploaded.
After the image is verified, the message **“Upload Completed Successfully”** appears at the top of the page.

Install Update on Hub and Database

1. Click the **Install Update** button to install the 6.6.2-x upgrade on the Stratusphere Hub.
2. The UI displays a progress bar with the message **“Install in Progress (This might take several minutes).”**
3. As soon as the upgrade starts, all services on the appliance are turned off. The UI then displays the message **“Stratusphere is being upgraded after which the Hub will be rebooted. You will be logged out in 10 seconds. Please wait at least 15 minutes to log back in.”** The user is then logged out of the Web UI automatically and a generic **“Stratusphere is down”** message is displayed.
4. The Database upgrade is initiated first, and the Database is rebooted automatically at the end of the upgrade.
5. The Hub then upgrades itself and reboots as well. In some cases, the appliances might reboot again.
6. After the upgrade and subsequent reboots, when all services are available again, the generic **“Stratusphere is down”** message goes away automatically, and the Stratusphere Web UI Login page is displayed again.

Note: The Web UI might need to be refreshed to be able to log in.

Install Update on Collectors

If there are any Collectors on this installation of Stratusphere, complete the following steps:

Standard & Enhanced Security Mode:

1. Log in to the Web UI **Administration** section.
2. Navigate to the **Collector Administration > Collectors** tab.
3. Select each 6.6.2-x Collector in the list one at a time and click the **Upgrade** button.
4. The Collectors then upgrade and reboot themselves.
5. After they reboot, wait about 15 minutes, then check their version number within the Web UI.

Update Connector ID Key Agents

To update Connector ID Key agents for **persistent** machines, complete the following steps:

1. Log in to the Stratusphere Hub Web UI **Administration** section.
2. Navigate to **Hub Administration > Connector ID Keys > Connector ID Keys Properties** tab.
3. Select the appropriate machine group in the **Configure properties for** drop-down list.
4. Scroll down and select the **Automatically update Connector ID Keys when new software versions are installed in the Stratusphere Hub** checkbox.
5. Scroll down and click the **Save** button.

The CID Keys then automatically download the installer for the updated version and upgrade themselves on their next callback.

For **non-persistent** machines, your master or gold images need to be updated with the new CID Key software. To update Connector ID Key agents for non-persistent machines, complete the following steps:

1. Log in to the Stratusphere Hub Web UI **Administration** section.
2. Navigate to the **Hub Administration > Connector ID Keys > Connector ID Key Software** tab.
3. Download the appropriate installer for your environment.
4. Open your gold image as an Administrator and follow the instructions outlined in the appendixes of the *Stratusphere Installation & Configuration Guide* to update agents on gold images.

Validate and Complete the Update

Before completing the upgrade and removing the snapshots, Liquidware recommends waiting for a few hours to ensure that the CID Keys round-robin through their list of Collectors. Make sure that the following are true:

- New data is in process of being saved within the database.
- New data is visible within the Web UI

After you verify that the installation has upgraded and is working properly, remove the snapshots on the Stratusphere appliances.

The upgrade process is then complete.

Important: VMware vSphere Virtual Machine Hardware Version

Due to recently published vulnerabilities, such as Spectre & Meltdown, VMware recommends upgrading the virtual machine hardware to the latest version supported by your vSphere infrastructure. While the Stratusphere appliances are powered down, upgrade their virtual machine hardware to version 10 or higher, as supported by the vSphere infrastructure. Refer to the VMware knowledge base article, "[Upgrading a virtual machine to the latest hardware version \(multiple versions\)](#)" for upgrading virtual machine hardware versions.

Troubleshooting

No new data from CID Keys after the upgrade

If you are getting no new data from CID Keys after the upgrade, try the following remedies:

- Make sure the Collectors have been upgraded and rebooted.
- If the Collector appliances did not reboot themselves, reboot them as their services were paused prior to beginning the update.
- Verify each Collector's version number by logging in to the **Administration** section's **Collector Administration > Collectors** tab.
- If **Enhanced Security** was enabled on the Hub and/or the Database appliances, execute the following on the command line console of the Database appliance:

- a. Log in to the console using `friend` and `sspasword` as default credentials.
- b. Type the command `sudo bash` and the password `sspasword` as default credentials.
- c. Execute the following command:

```
/opt/tnt/etc/iptables-filter && /sbin/iptables-save -t filter >/etc/sysconfig/iptables
```

- d. Log out of the command line console by pressing **CTRL+D** twice. This should allow the Collectors to connect directly into the database again and save data.

SCP fails to log in to the appliance.

The Stratusphere appliance is a security hardened appliance. If **Enhanced Security** is enabled, it has policies whereby passwords will expire after a certain amount of time. An expired password might be preventing the user from logging in to the appliance.

To resolve this issue, log in to the local command line console and it will prompt you to change and update your password immediately. After the password has been updated, you should be able to use the SCP tool again to upload files to the appliance.

"Please select a file to upload" message appears while uploading file.

One possible reason for this error is that the browser might have cached some of the code and might not be running the latest version of the page.

To resolve this issue, log out of the UI, clear the cache in the browser, and start over.

If the problem persists, then depending on your browser, do the following:

- In Firefox, right-click anywhere within the yellow warning message bar and choose the **This Frame -> Reload Frame** option.

- In Chrome, right-click anywhere within the yellow warning message bar and choose the **Reload Frame** option.
- In Internet Explorer, right-click anywhere within the yellow warning message bar and choose the **Refresh** option.

Hub upgraded but there are some errors while using the Web UI

In most cases, the reason for this error is that the default password (`sspassword`) for the **friend** or **root** users has been changed on the Database Appliance, thus causing the connection failures between the Hub and Database.

To resolve this issue, complete the following steps:

1. Log in to the command line console of the Database Appliance using the following credentials:
 - User ID: `ssconsole`
 - Password: `sspassword`
2. Enter `U` for the **U) Update Software Menu** option.
3. Enter `S` for the **S) Software Update Site** option.
4. The update site should be set to the Stratusphere Hub IP or DNS such as `https://Hub.IP.or.DNS/upgrades/latest`. The `Hub.IP.or.DNS` part of the address must be the actual IP or DNS of the Stratusphere Hub. If it does NOT match and is still pointing to `http://download.liquidwarelabs.com/upgrades/yum/` then press `Y` and edit it to match `https://Hub.IP.or.DNS/upgrades/latest`, then press **Enter**. It will update the site and ask again if you want to make a change. Press `N` and **Enter** to finish. If it matches, press `N` and **Enter** to proceed.
5. Enter `U` for the **U) Update** option to apply the update on the appliance. At the prompt, "**Do you really want to update?**" enter `Y` to confirm.
6. Enter `Q` to return to the previous menu, enter `S` for **S) Software Services**, and enter `R` for the **R) Reboot Server** option if it is not scheduled automatically.
7. After the appliance reboots, wait **at least 10-15** minutes to start all required services.

Hub upgraded but the Database is still showing the old version.

In most cases, the reason for this error is that the default password (`sspassword`) for the **friend** or **root** users has been changed on the Database Appliance, thus causing the connection failures between the Hub and Database.

To resolve this issue, complete the following steps:

1. Log in to the command line console of the Database Appliance using the following credentials:
 - User ID: `ssconsole`
 - Password: `sspassword`

2. Enter **U** for the **U) Update Software Menu** option.
3. Enter **S** for the **S) Software Update Site** option.
4. The update site should be set to the Stratusphere Hub IP or DNS such as `https://Hub.IP.or.DNS/upgrades/latest`. The `Hub.IP.or.DNS` part of the address must be the actual IP or DNS of the Stratusphere Hub. If it does NOT match and is still pointing to `http://download.liquidware.com/upgrades/yum/` then press **Y** and edit it to match `https://Hub.IP.or.DNS/upgrades/latest`, then press **Enter**. It will update the site and ask again if you want to make a change. Press **N** and **Enter** to finish. If it matches, press **N** and **Enter** to proceed.
5. Enter **U** for the **U) Update** option to apply the update on the appliance. At the prompt, "**Do you really want to update?**" enter **Y** to confirm.
6. Enter **Q** to return to the previous menu, enter **S** for **S) Software Services**, and enter **R** for the **R) Reboot Server** option if it is not scheduled automatically.
7. As the database appliance reboots, log in to the Stratusphere Hub appliance console using the following credentials:
 - User ID: `ssconsole`
 - Default password: `sspassword`
8. Type **S** for **S) Software Services**, type **W** for the **W) Toggle Web service** option, and type **W** again to toggle web services back on. The Stratusphere Hub initiates all schema updates within the database, so restarting the services also restarts the schema updates that might have failed before. These schema updates take time depending on the size of your database, so wait at least **15-30 minutes** to start services and perform all schema upgrades required since the last version.

Collectors did not upgrade through the UI; they are still showing the old version.

In some cases, when **Enhanced Security** is enabled, the Collectors fail to upgrade to the latest version. In these cases, complete the following steps in the Collector's console-based upgrade process to fix the issue.

1. Ensure the Collectors are all powered on.
2. Log in to the console using the following credentials:
 - User ID: `ssconsole`
 - Default password: `sspassword`
3. Type **U** for the **U) Update Software Menu** option.
4. Type **S** for the **S) Software Update Site** option.
5. The update site should be set to the Stratusphere Hub IP or DNS such as `https://Hub.IP.or.DNS/upgrades/latest`. The `Hub.IP.or.DNS` part of the address needs to be the actual IP or DNS of the Stratusphere Hub. If it does not match and is still

pointing to `http://download.liquidware.com/upgrades/yum/` then type `Y` and edit it to match `https://Hub.IP.or.DNS/upgrades/latest`, then press **Enter**. It will update the site and ask again if you want to make a change. Type `N` and press **Enter** to finish. If it matches, type `N` and press **Enter** to proceed.

6. Type `U` for the **U) Update Software Menu** option to apply the update on the appliance. At the prompt, "**Do you really want to update?**", type `Y` to confirm.
7. In most cases, the appliance will reboot automatically after an upgrade. If it does not, type `Q` to return to the previous menu, type `S` for **S) Software Services**, and type `R` for the **R) Reboot Server** option.
8. After the appliance reboots, wait a few minutes to start all required services.
9. Log in to the **Administration** section of the Stratusphere Hub Web UI.
10. Navigate to the **Collector Administration > Collectors** tab.
11. Verify that each Collector has upgraded to the 6.6.2-x version.

Stratusphere Web UI displays a 404 Error or fails to authenticate after upgrade.

Liquidware is investigating why this 404 error sometimes occurs. The easiest workaround is to restart the Hub's Web Services by completing the following steps:

1. Log in to the command line console of the Hub Appliance using the following credentials:
 - User ID: `ssconsole`
 - Default password: `sspassword`
 Use modified password if the default password has been updated.
2. On the Liquidware Stratusphere Hub Appliance main menu, type `S` for the **S) Software Services** option.
3. Type `A` for the **A) Restart All Services** option to restart all services.
4. If there is no option **S) Software Services** available above, it might not have upgraded to the latest version and might still be on the prior 6.6.0 version. If so, type `W` for the **W) Toggle Web Services** option twice.
5. Type `Q` to quit the console session and exit. The upgrade must be re-initiated. If this persists, contact Liquidware Support.
6. Give the services a few minutes for the services to start and then go back into the browser to see if the Stratusphere Web UI is available.

Error related to 'lwl_rollup.sr_wifi_stats_da' within Advanced tab.

Liquidware added Wi-Fi stats to version 6.1.5. Depending on the time frame being queried, the UI requests data from roll-up or summarized tables. These new metrics are in new tables, and if

requested right after the upgrade, you might see SQL-related errors. The following are the reasons and associated workarounds for the issue:

- Select a shorter time such as **Last Hour** or **Last 2 hours** or set **Roll-ups = Off** and rerun the query. The error should no longer appear.
- The roll-up processing of data might not have been completed within the database. Wait for an hour to query for the longer periods—**Today, Yesterday**, or multi-day queries—which might select rolled up summary tables automatically.

Getting Help with Stratusphere

If you have questions or run into issues while using Stratusphere, Liquidware is here to help. Our goal is to provide you with the knowledge, tools, and support you need to be productive.

Using Online Resources

Liquidware maintains various kinds of helpful resources on our [Customer Support Portal](#). If you have questions about your product, use these online resources. The Support Portal includes product forums and a searchable knowledge base, among other items. You can visit our website at <https://www.liquidware.com>. For product documentation, refer to our [Liquidware Document Repository](#). Use the search field above or the sidebar on the left of this screen to find the information you need.

Contacting Support

If you need to contact our Support staff for technical assistance, log a request on the [Liquidware Customer Support Portal](#) or call us. Prior to logging a case you should review these helpful tips:

- Check the Product Documentation included with your Liquidware Product.
- Try to see if the problem is reproducible.
- Check to see if the problem is limited to one machine or more.
- Note any recent changes to your system and environment.
- Note the version of your Liquidware product and environment details such as operating system, virtualization platform version, etc.

To speak directly with Support, call one of the following numbers:

Main Line	1-678-397-0460
Toll Free in US & Canada	1-866-914-9665
Europe/Middle East/Africa	+44 800 014 8097
Toll Free in Europe	
UK	0800 014 8097
Netherlands	0800 022 5973
Switzerland	0800 561 271