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Stratusphere™ FIT & Stratusphere™ UX

Migrating from 5.8.5 or Higher to 6.0 Appliances

Introduction

This guide has been authored by Liquidware to provide a step by step guide to migrate from Stratusphere 5.8.5 or higher to 6.0.0 appliances.

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Overview

This document is meant for Stratusphere Administrators who need to perform a migration of their existing Stratusphere 5.8.5 or higher appliances to the latest 6.x version. Prior versions of Stratusphere appliances cannot be upgraded through the Web UI to the latest 6.x version due to underlying operating system related upgrades.

This document provides instructions to migrate settings, certificates, and data from the old appliances to the new appliances. To do so, they are required to be temporarily configured as new appliances prior to migrating and assuming the identities of the older appliances. Please acquire temporary IP addresses, network masks, default gateway IP addresses etc. prior to proceeding. The instructions assume that the new appliances will use the same IP network settings as the older appliances.

The existing 5.8.5 or higher version CID Keys and Network Stations already deployed will continue to function and upload data to the new Stratusphere 6.0 appliances. The CID Keys, in turn, could be configured to auto-upgrade themselves to the 6.0 version through a simple configuration option within the Administration Web UI. The 5.8.5 or higher Network Stations cannot be upgraded to 6.0 Collectors but are still compatible with Stratusphere 6.0 Hubs and can be replaced in a phased manner. New Stratusphere Collector appliances would have to be deployed to take advantage of the highly scalable architecture of Stratusphere 6.0. Please refer to the *Stratusphere Installation & Configuration Guide* for instructions on how to add Collector appliances to the Stratusphere 6.0 Hub.

Due to differences on how Amazon Web Services handle password security and requires certificates for access to appliances, Liquidware has separate instructions sets for its AWS based Stratusphere appliances, compared to the standard instructions for VMware ESX, Microsoft Hyper V, Nutanix Acropolis, and Citrix XenServer based appliances.

Estimating Time for Migrating Data

Migrating data from 5.8.5 and higher to 6.0 involves streaming data from an older version of Postgres to the latest version at Postgres 9.6. Streamed data could be larger in size compared to the native database storage format. Rate of transfer depends on the performance of your storage and networking. To help estimating the time taken here are some guidelines:

1. Log into the Stratusphere 5.8.5 or higher Web UI's Administration section. Navigate to Hub Administration > Data Retention > Status tab. Determine the size of the database as highlighted in the red box below i.e. 23.42 GB:

2. When Migration Wizard begins data transfer, it will provide an average rate of transfer in MB/s as shown below:

3. So, to estimated time taken:
   a. Total database size = 165.12 GB = 165.12 x 1024 = 169,082 MB.
   b. At 18 MB/s, 169,082/18 = 1,332 seconds i.e. 9,393/3600 seconds = 2 hours, 36 minutes.
   c. After the data is transferred, the database begins internal operations such as indexing and schema updates. This will take additional time, so please be patient until the Migration Wizard completes the migration.

Migrating VMware ESXi, Microsoft Hyper V, Nutanix Acropolis, & Citrix XenServer based Appliances:

This section provides instructions to migrate your installation for the following scenarios:

1. A single Stratusphere Hub appliance i.e. no separate Stratusphere Database appliance.
2. A Stratusphere Hub and a Database appliance.
3. Multiple sets of Stratusphere Hub and Database appliances.

Scenario 1: Migrating a Single Stratusphere Hub Appliance

In this scenario, the instructions will walk you through moving the data from a 5.8.5 or higher Stratusphere Hub appliance into a new 6.x Stratusphere Hub appliance as well as updating the Connector ID Key agents to the 6.x versions as well.

Preparation for Migration

1. Download a brand-new version of the Stratusphere 6.x Hub appliances from www.liquidware.com/download. Use the online Stratusphere Sizing Guide to size them appropriately.

2. Acquire the credentials for the **ssconsole, friend** and **root** users for the existing Stratusphere 5.8.5 or higher Hub appliance. The default password for these users is **sspassword**. Please use PuTTY to test and validate if the passwords for each user still work prior to proceeding.

   Note: For migrations on Amazon Web Services EC2 based AMI appliances please refer to the Migrating Amazon Web Services based Appliances section below.

3. This document assumes that a valid DNS name is defined and configured within the Stratusphere 5.8.5 or higher Hub Web UI, which in turn is used by CID Keys to call back to the Stratusphere Hub. If this is the case, acquire a new temporary static IP address for the new 6.x Hub.

4. Acquire the following to temporarily configure the new Stratusphere Hub appliance:

   a) IP Address
   b) Network Mask
   c) Default Gateway IP Address
   d) IPv6 Address
   e) DNS Server Addresses
   f) DNS Search Suffixes
   g) NTP Servers

Migration Instructions

1. Before powering up your new Stratusphere 6.x Hub appliance, please use the online Stratusphere Sizing Guide to properly size the new Stratusphere 6.x Hub appliance. Based on the sizing guideline, please edit settings of the Stratusphere Hub appliance and provide the requisite resources for vCPUs, RAM, and storage for the Hub.

2. As part of its best practices, Liquidware recommends taking a snapshot of the existing Hub appliances for safety.

3. On the new Stratusphere 6.x Hub appliance:

   a) Power ON the new Stratusphere 6.x Hub appliance.

b) Open a local console of the Stratusphere Hub appliance, and click into it. Use instructions within the *Stratusphere Installation & Configuration Guide* to set up the Hub appliance.

4. Once configured, the appliance console will show a status screen. Hit ENTER key within the console and use **ssconsole** & **sspassword** as credentials when prompted to log into the console. Enter '**M**' for the **Migrate certs, settings, and data from remote appliance** menu option.

    a) Follow the instructions to enter the IP address of the old 5.8.5 or higher Stratusphere Hub. It will then test to see if the default credentials for **friend** and **root** users can be used to connect to the remote 5.8.5 or higher Hub. If not, it will prompt the user to enter the **friend** and **root** credentials.

    b) The new 6.x appliance will proceed to copy the network configuration, data, and certificate materials from the remote (older 5.8.5 or higher) Hub to the local (new 6.x) Hub. It will provide a running counter for data being copied in MB. When it has finished copying all the data from the remote (older 5.8.5 or higher) appliance, the data transfer counter will stop incrementing and only the time counter will keep incrementing. This is expected as the local appliance database is creating new tables and indexes during this time. Please wait until the Migration Wizard completes. Once all information is migrated, the remote Hub will be shut down. Then the network configuration, data, and certificate materials will be applied to the new 6.x Hub. Once completed, the appliance will reboot itself.


```
DB: portal  ( At the end of the import indexes are created.
              The time will increment but not the bytes copied. )
_   85,540 Megabytes Copied, 18 Meg/Sec at 77:24
```

5. After the appliance reboots, please wait for least **15 minutes** before using the same DNS name or IP address of the Hub to try to access the Stratusphere Web UI in your favorite browser. Once the login page is available, please verify that it displays 6.0.0 in the blue ribbon at the bottom of the web page to confirm the migration to the new version.

6. The login page will display a message (shown below) for the user to contact Licensing@Liquidware.com to update the license since the underlying appliance has been changed. Please take a screen shot of your page and send it to Licensing@Liquidware.com to request an updated License Code and instructions to update your license. The end user has full access to Stratusphere for up to 21 days after which access to the UI will be restricted to the license page only. The CID Key & Network data collection will continue despite the restricted UI access. The message displayed on the login page of the Stratusphere Hub will count down 21 days allowing the user enough time to contact Licensing@Liquidware.com to update and apply the new license.

> • Thank you for installing the new Stratusphere 6.0 appliance. As per Liquidware policies, Stratusphere appliances require an activation process that generates a license based on a machine-specific Activation Code combined with a License Code. Please contact Licensing at Liquidware (licensing@Liquidware.com) to receive an updated License Code. Your existing license will expire in 20 days.

7. Any currently deployed 5.8.5 or higher CID Keys will continue to work and upload their data to the new Stratusphere 6.x Hub. To upgrade the CID Key to the 6.x version, please log into the ADMINISTRATION section of the Web UI and navigate to the HUB ADMINISTRATION > CONNECTOR ID KEYS > CONNECTOR ID KEY PROPERTIES tab. Under the main PROPERTIES section, and for a selected Machine Group, you can enable the **Automatically update Connector ID Keys when new software versions are installed in the Stratusphere Hub** option. When the CID Keys call back at their callback frequencies, they will know there is an update available, and get to download the new 6.x installer for the CID Key. The CID Keys will then be able to

update themselves to the latest version in session with no reboot required. To update any gold or master images, with CID Key built-in, please download the relevant CID Key installer from the Connector ID Key Software tab and update your master images as needed.

8. The migration process is now complete.

Scenario 2: Migrating a Stratusphere Hub and a Database Appliance

In this scenario, the instructions will walk you through moving the data from a single 5.8.5 or higher Stratusphere Hub and Database appliance to a new 6.x Stratusphere Hub and Database appliance. Although the 5.8.5 or higher CID Keys will continue to work with the 6.x Hub, these instructions will also walk you through how to upgrade CID Keys from the older version to the new 6.x version. Similarly, the 5.8.5 or higher Network Stations will continue to work and upload their network metrics to the new 6.x Hub. However, 5.8.5 or higher Network Stations cannot be upgraded in place to the 6.x version. Administrators can devise a phased plan to install new 6.x Collector appliances for collecting CID Key metrics and/or network metrics as part of the Stratusphere Highly Scalable Architecture.

Preparation for Migration

1. Download a brand-new version of the Stratusphere 6.x Hub and Database appliances from www.liquidware.com/download. Use the online Stratusphere Sizing Guide to size them appropriately.

2. Acquire the credentials for the **ssconsole, friend** and **root** users for the existing Stratusphere 5.8.5 or higher Hub appliance. The default password for these users is **sspassword**. Please use PuTTY to test and validate if the passwords for each user still work prior to proceeding.

    Note: For migrations on Amazon Web Services EC2 based AMI appliances please refer to the Migrating Amazon Web Services based Appliances section below.

3. This document assumes that a valid DNS name is defined and configured within the Stratusphere 5.8.5 or higher Hub Web UI, which in turn is used by CID Keys to call back to the Stratusphere Hub. If this is the case, acquire new temporary static IP addresses for the new 6.x Hub and Database.

4. Acquire the following to temporarily configure the new Stratusphere Hub appliance:

    a) IP Address
    b) Network Mask
    c) Default Gateway IP Address
    d) IPv6 Address
    e) DNS Server Addresses
    f) DNS Search Suffixes
    g) NTP Servers

5. Acquire the following to temporarily configure the new Stratusphere Database appliance:

    a) IP Address
    b) Network Mask
    c) Default Gateway IP Address
    d) DNS Server Addresses
    e) IPv6 Address
    f) NTP Servers

Migration Instructions

1. Before powering up your Stratusphere Hub & Database appliances, please use the online Stratusphere Sizing Guide to properly size the new Stratusphere appliances. Based on the sizing guideline, please edit settings of the Stratusphere appliances and provide the requisite resources for vCPUs, RAM, and storage for the Hub & Database.

2. As part of its best practices, Liquidware recommends taking a snapshot of the existing Hub and Database appliances for safety.

3. Please power down the existing Stratusphere 5.x Hub appliance. To maintain data integrity and consistency, we need to power down the existing Hub from receiving any new data from the CID Keys and Network Stations. The CID Keys and Network Stations will queue up their data on board until the new Hub comes online.

4. On the new Stratusphere 6.x Database appliance:

    a) Power ON the new Stratusphere 6.x Database appliance.

    b) Open a local console of the Stratusphere Database appliance, and click into it. Use instructions within the **Stratusphere Installation & Configuration Guide** to set up the Database appliance.

    c) Once configured, the appliance console will show a status screen. Hit ENTER key and use **ssconsole** & **sspassword** as credentials to log into the console. Enter '**M**' for the **Migrate certs, settings, and data from remote appliance** menu option.

    d) Follow the instructions to enter the IP address of the old 5.8.5 or higher Stratusphere Database. It will then test to see if the default credentials for **friend** and **root** users can be used to connect to the remote 5.8.5 or higher Database. If not, it will prompt the user to enter the **friend** and **root** credentials.

    e) The new 6.x appliance will proceed to copy the network configuration, data, and certificate materials from the remote (older 5.8.5 or higher) Database to the local (new 6.x) Database. It will provide a running counter for data being copied in MB. When it has finished copying all the data from the remote (older 5.8.5 or higher) appliance, the data transfer counter will stop incrementing and only the time counter will keep incrementing. This is expected as the local appliance database is creating new tables and indexes during this time. Please wait until the Migration Wizard completes and prompts you to continue. Once all information is migrated, the remote Database will be shut down. Then the network configuration, data, and certificate materials will be applied to the new 6.x Database. Once completed, the appliance will reboot itself.

    ```
    DB: portal  ( At the end of the import indexes are created.
                  The time will increment but not the bytes copied. )
    _   85,540 Megabytes Copied, 18 Meg/Sec at 77:24
    ```

5. As the Database appliance is rebooting, on the new Stratusphere 6.x Hub appliance:

    a) Power ON the old 5.x Stratusphere Hub and the new Stratusphere 6.x Hub appliances.

    b) Open a local console of the Stratusphere Hub appliance, and click into it. Use instructions within the **Stratusphere Installation & Configuration Guide** to set up the Hub appliance.

c) Once configured, the appliance console will show a status screen. Hit ENTER key and use **ssconsole** & **sspassword** as credentials to log into the console. Enter '**M**' for the **Migrate certs, settings, and data from remote appliance** menu option.

d) Follow the instructions to enter the IP address of the old 5.8.5 or higher Stratusphere Hub. It will then test to see if the default credentials for **friend** and **root** users can be used to connect to the remote 5.8.5 or higher Hub. If not, it will prompt the user to enter the **friend** and **root** credentials.

e) The new 6.x appliance will proceed to copy the network configuration, data, and certificate materials from the remote (older 5.8.5 or higher) Hub to the local (new 6.x) Hub. It will provide a running counter for data being copied in MB. When it has finished copying all the data from the remote (older 5.8.5 or higher) appliance, the data transfer counter will stop incrementing and only the time counter will keep incrementing. This is expected as the local appliance database is creating new tables and indexes during this time. Please wait until the Migration Wizard completes and prompts you to continue. Once all information is migrated, the remote Hub will be shut down. Then the network configuration, data, and certificate materials will be applied to the new 6.x Hub. Once completed, the appliance may reboot itself.

4. After the appliance reboots, please wait for least **15 minutes** before using the same DNS name or IP address of the Hub to try to access the Stratusphere Web UI in your favorite browser.

5. The login page will display a message (shown below) for the user to contact Licensing@Liquidware.com to update the license since the underlying appliance has been changed. Please take a screen shot of your page and send it to Licensing@Liquidware.com to request an updated License Code and instructions to update your license. The end user has full access to Stratusphere for up to 21 days after which access to the UI will be restricted to the license page only. The CID Key & Network data collection will continue despite the restricted UI access. The message displayed on the login page of the Stratusphere Hub will count down 21 days allowing the user enough time to contact Licensing@Liquidware.com to update and apply the new license.

> • Thank you for installing the new Stratusphere 6.0 appliance. As per Liquidware policies, Stratusphere appliances require an activation process that generates a license based on a machine-specific Activation Code combined with a License Code. Please contact Licensing at Liquidware (licensing@Liquidware.com) to receive an updated License Code. Your existing license will expire in 20 days.

6. Any currently deployed 5.8.5 or higher CID Keys will continue to work and upload their data to the new Stratusphere 6.x Hub. To upgrade the CID Key to the 6.x version, please log into the ADMINISTRATION section of the Web UI and navigate to the HUB ADMINISTRATION > CONNECTOR ID KEYS > CONNECTOR ID KEY PROPERTIES tab. Under the main PROPERTIES section, and for a selected Machine Group, you can enable the **Automatically update Connector ID Keys when new software versions are installed in the Stratusphere Hub** option. When the CID Keys call back at their callback frequencies, they will know there is an update available, and get to download the new 6.x installer for the CID Key. The CID Keys will then be able to update themselves to the latest version in session with no reboot required. To update any gold or master images, with CID Key built-in, please download the relevant CID Key installer from the Connector ID Key Software tab and update your master images as needed.

7. The migration process is now complete.

Scenario 3: Migrating Multiple Sets of Hub and Database Appliances

This scenario references environments with 2 or more sets of Stratusphere Hub and Database appliances installed. With its Highly Scalable Architecture including Collector appliances, Stratusphere 6.x can now be used to consolidate multiple Hubs into a single Hub providing a true single pane of glass that now supports monitoring between 20,000 - 50,000 machines calling back every 60 minutes.

Here is the plan to consolidate and monitor all machines in a single set of Stratusphere 6.x Hub and Database appliances:

1. In Stratusphere 6.0, Liquidware can only support migrating data from a single Hub & Database set. It cannot consolidate historical data from multiple Hubs into a single 6.x Hub. So, Liquidware recommends selecting the set of Stratusphere Hub and Database appliances that have the most machines with CID Keys calling back to start the migration to a consolidated Hub. The historical data from this Hub will be migrated and be available for reporting.

2. The remaining sets of Hub and Database appliances that are not consolidated could still live on for reporting purposes. However, no new CID Key data should be uploading to these older historical Hubs.

3. Install new Stratusphere Collector appliances, organized by Collector Groups, to receive CID Key metrics to facilitate and support consolidated capability.

4. All CID Keys, regardless of which Hubs they were calling back to before, will be migrated to the new 6.x consolidated Stratusphere Hub and Database. The 5.8.5 or higher CID Keys that were reporting to the other set of Hubs will then be configured through a registry change to point to the new 6.x consolidate Hub. The 5.8.5 or higher CID Keys will then call back to the new 6.x Hubs, register and start uploading metrics to the 6.x Hub. Once they are migrated, the 5.8.5 or higher CID Keys can be configured to upgrade to 6.x by simply enabling a check box under the Administration Web UI. If they are part of a master or gold image, they can be updated to the latest version using the 6.x installer within the Administration Web UI.

5. Existing Stratusphere 5.8.5 or higher Network Stations will continue to call back to the consolidated 6.x Hub. Network Stations on the other set of 5.8.5 or higher Hubs will need to be replaced by new 6.x Network Collector appliances because Network Station appliances cannot be upgraded to 6.x Collector appliances.

Preparing for the Migration

1. Download a brand-new version of the Stratusphere 6.x Hub and Database appliances from www.liquidware.com/download. Use the online Stratusphere Sizing Guide to size them appropriately.

2. Acquire the credentials for the **ssconsole, friend** and **root** users for the existing Stratusphere 5.8.5 or higher Hub appliance. The default password for these users is **sspassword**. Please use PuTTY to test and validate if the passwords for each user still work prior to proceeding.

   Note: For migrations on Amazon Web Services EC2 based AMI appliances please refer to the Migrating Amazon Web Services based Appliances section below.

3. This document assumes that a valid DNS name is defined and configured within the Stratusphere 5.8.5 or higher Hub Web UI, which in turn is used by CID Keys to call back to the Stratusphere Hub. If this is the case, acquire new temporary static IP addresses for the new 6.x Hub and Database.

4. Acquire the following to temporarily configure the new Stratusphere Hub appliance:

   a) IP Address
   b) Network Mask

  c) Default Gateway IP Address

  d) IPv6 Address

  e) DNS Server Addresses

  f) DNS Search Suffixes

  g) NTP Servers

5. Acquire the following to temporarily configure the new Stratusphere Database appliance:

  a) IP Address

  b) Network Mask

  c) Default Gateway IP Address

  d) DNS Server Addresses

  e) IPv6 Address

  f) NTP Servers

6. Acquire the following for each new Stratusphere Collector appliance:

  a) Host Name

  b) IP Address

  c) Network Mask

  d) Default Gateway IP Address

  e) DNS Server Addresses

  f) IPv6 Address

  g) NTP Servers

7. Acquire the ability to push a registry key to all the CID Keys that report to the set of Stratusphere Hub & Database appliances that are not going to be consolidated into the 6.x Hub. Liquidware recommends using its product, ProfileUnity, to easily perform this and many other helpful functions. The registry key will contain the DNS address of consolidated 6.x Hub. The CID Keys will then be able to register themselves with the new 6.x consolidated Hub.

Migration Instructions

1. Before powering up your Stratusphere Hub & Database appliances, please use the online Stratusphere Sizing Guide to properly size the new Stratusphere appliances. Based on the sizing guideline, please edit settings of the Stratusphere appliances and provide the requisite resources for vCPUs, RAM, and storage for the Hub & Database.

2. As part of its best practices, Liquidware recommends taking a snapshot of the existing Hub and Database appliances for safety.

3. Please power down the existing Stratusphere 5.x Hub appliance. To maintain data integrity and consistency, we need to power down the existing Hub from receiving any new data from the CID Keys and Network Stations. The CID Keys and Network Stations will queue up their data on board until the new Hub comes online.

4. On the new Stratusphere 6.x Database appliance:

  a) Power ON the new Stratusphere 6.x Database Appliance.

  b) Open a local console of the Stratusphere Database appliance, and click into it. Use instructions within the ***Stratusphere Installation & Configuration Guide*** to set up the Database appliance.

c) Once configured, the appliance console will show a status screen. Hit ENTER key and use ssconsole & sspassword as credentials to log into the console. Enter '**M**' for the **Migrate certs, settings, and data from remote appliance** menu option.

d) Follow the instructions to enter the IP Address of the old 5.x Stratusphere Database. It will then test to see if the default credentials for friend and root users can be used to connect to the remote 5.x Database. If not, it will prompt the user for entering the friend and root credentials.

e) The new 6.x appliance will proceed to copy the network configuration, data, and certificate materials from the remote (older 5.x) Database to the local (new 6.x) Database. It will provide a running counter for data being copied in MB. When it has finished copying all the data from the remote (older 5.x) appliance, the data transfer counter will stop incrementing and only the time counter will keep incrementing. This is expected as the local appliance database is creating new tables and indexes during this time. Please wait until the Migration Wizard completes and prompts you to continue. Once all information is migrated, the remote Database will be shut down. Then the network configuration, data, and certificate materials will be applied to the new 6.x Database. Once completed, the appliance may reboot itself.


```
DB: portal   ( At the end of the import indexes are created.
                The time will increment but not the bytes copied. )
   _   85,540 Megabytes Copied, 18 Meg/Sec at 77:24
```

5. As the new Database appliance is rebooting, on the new Stratusphere 6.x Hub appliance:

a) Power ON the old Stratusphere 5.x Hub and the new Stratusphere 6.x Hub appliances.

b) Open a local console of the Stratusphere Hub appliance, and click into it. Use instructions within the *Stratusphere Installation & Configuration Guide* to set up the Hub appliance.

c) Once configured, the appliance console will show a status screen. Hit ENTER key and use **ssconsole** & **sspassword** as credentials to log into the console. Enter '**M**' for the **Migrate certs, settings, and data from remote appliance** menu option.

d) Follow the instructions to enter the IP address of the old 5.8.5 or higher Stratusphere Hub that has been selected to be migrated to 6.x and the one that will serve as the consolidated 6.x Hub. It will then test to see if the default credentials for **friend** and **root** users can be used to connect to the remote 5.8.5 or higher Hub. If not, it will prompt the user to enter the **friend** and **root** credentials.

e) The new 6.x appliance will proceed to copy the network configuration, data, and certificate materials from the remote (older 5.8.5 or higher) Hub to the local (new 6.x) Hub. It will provide a running counter for data being copied in MB. When it has finished copying all the data from the remote (older 5.8.5 or higher) appliance, the data transfer counter will stop incrementing and only the time counter will keep incrementing. This is expected as the local appliance database is creating new tables and indexes during this time. Please wait until the Migration Wizard completes and prompts you to continue. Once all information is migrated, the remote Hub will be shut down, and then the network configuration, data, and certificate materials will be applied to the new 6.x Hub. Once completed, the appliance may reboot itself.

4. After the appliance reboots, please wait for least **15 minutes** before using the same DNS name or IP address of the Hub to try to access the Stratusphere Web UI in your favorite browser.

5. The login page will also display a message (shown below) for the user to contact Licensing@Liquidware.com to update the license since the underlying appliance has been changed. Please take a screen shot of your page and send it to Licensing@Liquidware.com to request an updated License Code and instructions to update your license. The end user has full access to Stratusphere for up to 21 days after which access to the UI will be restricted to the license page only. The CID Key & Network data collection will continue despite the restricted UI access. The message displayed on the login page of the Stratusphere Hub will count down 21 days allowing the user enough time to contact Licensing@Liquidware.com to update and apply the new license.

> • Thank you for installing the new Stratusphere 6.0 appliance. As per Liquidware policies, Stratusphere appliances require an activation process that generates a license based on a machine-specific Activation Code combined with a License Code. Please contact Licensing at Liquidware (licensing@Liquidware.com) to receive an updated License Code. Your existing license will expire in 20 days.

6. Any currently deployed 5.8.5 or higher CID Keys will continue to work and upload their data to the new Stratusphere 6.x Hub. To upgrade the CID Key to the 6.x version, please log into the ADMINISTRATION section of the Web UI and navigate to the HUB ADMINISTRATION > CONNECTOR ID KEYS > CONNECTOR ID KEY PROPERTIES tab. Under the main PROPERTIES section, and for a selected Machine Group, you can enable the **Automatically update Connector ID Keys when new software versions are installed in the Stratusphere Hub** option. When the CID Keys call back at their callback frequencies, they will know there is an update available, and get to download the new 6.x installer for the CID Key. The CID Keys will then be able to update themselves to the latest version in session with no reboot required. To update any gold or master images, with CID Key built-in, please download the relevant CID Key installer from the CONNECTOR ID KEY SOFTWARE tab and update your master images as needed.

7. All other CID Keys that were reporting to other Hubs should now be migrated to the consolidated 6.x Hub. Use any mechanism, including PSTools, to push out a new registry key to the machines that run the CID Keys reporting to other Hubs. Please refer to this KB article to get further information on how to push a registry key to migrate the CID Key from one Hub to another Hub. All these migrated CID Keys will start calling to the consolidated Hub and could then be upgraded over time to the 6.x version.

8. The administrator should make plans to replace 5.8.5 or higher Network Station appliances with 6.x Network Collector appliances in a phased manner. The new 6.x Collectors should use the same network settings as the older 5.8.5 or higher Network Stations. Please refer to the *Stratusphere Installation & Configuration Guide* for instructions on how to install a 6.x Collector appliance.

9. If data from the older, non-consolidated set of Hubs and Database appliances is no longer required, then they should be shut down and their resources reused for new virtual machines.

10. The migration process is now complete.

Migrating Amazon Web Services based Appliances

The instructions in this section will walk you through moving the data from a 5.8.5 or higher Stratusphere Hub appliance into a new 6.x Stratusphere Hub appliance running on Amazon Web Services infrastructure. It will also provide instructions on updating the Connector ID Key agents to the 6.x versions as well.

Preparation for Migration

1. Search for the latest version of the Stratusphere 6.0 AMI on AWS or use the links provided within the Stratusphere Installation & Configuration Guide to install the latest version of Stratusphere 6.0 AMIs. Use the online Stratusphere Sizing Guide to size the Hub appropriately.

2. Please download the following AWS Migration script to prepare for migrations. This script prepares both, the 5.8.x and the 6.x AMI based appliances, for migration of data by enabling usage of the default password '**sspassword**' for both the **friend** and **root** accounts.

3. Acquire the SSH key for the **friend** user for the existing Stratusphere 5.8.5 or higher Hub appliance.

4. This document assumes that a valid DNS name is defined and configured within the Stratusphere 5.8.5 or higher Hub Web UI, which in turn is used by CID Keys to call back to the Stratusphere Hub. If this is the case, since migration on AWS does not transfer the IP Address from the older Hub, please make sure you have the process in place to point the existing DNS name to the new IP Address of the Stratusphere 6.0 Hub.

5. Amazon Web Services automatically assigns a new IP Address to the newly created Stratusphere 6.0 Hub appliance. Once created, please make sure to convert that IP into a static address.

Migration Instructions

1. Before powering up your new Stratusphere 6.x Hub appliance, please use the online Stratusphere Sizing Guide to properly size the new Stratusphere 6.x Hub appliance. Based on the sizing guideline, please edit settings of the Stratusphere Hub appliance and provide the requisite resources for vCPUs, RAM, and storage for the Hub.

2. As part of its best practices, Liquidware recommends taking a snapshot of the existing Hub appliances for safety.

3. On the old Stratusphere 5.8.x Hub appliance:

    a) Using a program like WinSCP, upload the AWS Migration script downloaded in the preparation section above, to the 5.8.x Hub appliance. Use the SSH key acquired to authenticate and upload this script to the default `/home/friend` folder. For any help on how to connect with WinSCP or PuTTY to the Hub appliance, please refer to the following instructions on Connecting to Your Linux Instance from Windows.

    b) Using PuTTY, along with the SSH key for the **friend** user, log into the Hub appliance and execute the following command to prepare the appliance for migration by enabling usage of the default password '**sspassword**':

    ```
    chmod 755 /home/friend/awsmigrate.sh
    sudo /home/friend/awsmigrate.sh -pre
    ```

4. On the new Stratusphere 6.x Hub appliance:

   a) Power ON the new Stratusphere 6.x Hub appliance.

   b) Use instructions within the ***Stratusphere Installation & Configuration Guide*** to set up the Hub appliance.

   c) Using a program like WinSCP, upload the AWS Migration script downloaded in the preparation section above, to the 6.x Hub appliance. Use SSH key associated with the `ec2-user` to authenticate and upload this script to the default `/home/ec2-user` folder. For any help on how to connect with WinSCP or PuTTY to the Hub appliance, please refer to the following instructions on Connecting to Your Linux Instance from Windows.

   d) Using PuTTY, along with the SSH key for the `ec2-user` user, log into the Hub appliance and execute the following command to prepare the appliance for migration by enabling usage of the default password '`sspassword`':

      ```
      chmod 755 /home/ec2-user/awsmigrate.sh
      sudo /home/ec2-user/awsmigrate.sh -pre
      ```

5. The old and new Hub appliances are now ready to begin the migration process. Within the same PuTTY window of the new 6.0 Hub appliance, execute the following command to launch the Liquidware Hub Console menu options:

   ```
   sudo /bin/lwl
   ```

   a) Enter '**M**' for the **Migrate certs, settings, and data from remote appliance** menu option.

   b) Follow the instructions of the Migration wizard. The wizard will display information of what all will be copied from the remote Hub to the new local Hub including warning the user that the local database will be deleted only if the remote database can be connected to, and its data successfully migrated. It will prompt the user to confirm whether to proceed with the migration and deletion of the new local database. Once allowed by the user, the wizard will prompt the user to enter the IP address of the old 5.8.5 or higher Stratusphere Hub. It will then test to see if the default credentials for **friend** and **root** users can be used to connect to the remote 5.8.5 or higher Hub.

   c) The new 6.x appliance will proceed to copy the network configuration, data, and certificate materials from the remote (older 5.8.5 or higher) Hub to the local (new 6.x) Hub. It will provide a running counter for data being copied in MB. When it has finished copying all the data from the remote (older 5.8.5 or higher) appliance, the data transfer counter will stop incrementing and only the time counter will keep incrementing. This is expected as the local appliance database is creating new tables and indexes during this time. Please wait until the Migration Wizard completes. Once all information is migrated, the remote Hub will be shut down. Then the network configuration, data, and certificate materials will be applied to the new 6.x Hub. Once completed, the appliance will reboot itself.


   ```
   DB: portal  ( At the end of the import indexes are created.
                 The time will increment but not the bytes copied. )
   _    85,540 Megabytes Copied, 18 Meg/Sec at 77:24
   ```

   Note: On Amazon Web Services EC2 platform, the Hub is unable to take over the IP address of the old 5.8.5 or higher Hub.

6. Please update your DNS Servers to point to the new IP Address of the 6.0 Stratusphere Hub appliance so that you can use the DNS name to existing CID Keys will continue to connect and upload data to the new Stratusphere Hub.

7. After the appliance reboots, please wait for least **15 minutes** before using the same DNS name or the new Stratusphere 6.0 appliance IP Address of the Hub to try to access the Stratusphere Web UI in your favorite browser. Once the login page is available, please verify that it displays 6.0.0 in the blue ribbon at the bottom of the web page to confirm the migration to the new version.

8. The login page will display a message (shown below) for the user to contact Licensing@Liquidware.com to update the license since the underlying appliance has been changed. Please take a screen shot of your page and send it to Licensing@Liquidware.com to request an updated License Code and instructions to update your license. The end user has full access to Stratusphere for up to 21 days after which access to the UI will be restricted to the license page only. The CID Key & Network data collection will continue despite the restricted UI access. The message displayed on the login page of the Stratusphere Hub will count down 21 days allowing the user enough time to contact Licensing@Liquidware.com to update and apply the new license.

> • Thank you for installing the new Stratusphere 6.0 appliance. As per Liquidware policies, Stratusphere appliances require an activation process that generates a license based on a machine-specific Activation Code combined with a License Code. Please contact Licensing at Liquidware (licensing@Liquidware.com) to receive an updated License Code. Your existing license will expire in 20 days.

9. Any currently deployed 5.8.5 or higher CID Keys will continue to work and upload their data to the new Stratusphere 6.x Hub. To upgrade the CID Key to the 6.x version, please log into the ADMINISTRATION section of the Web UI and navigate to the HUB ADMINISTRATION > CONNECTOR ID KEYS > CONNECTOR ID KEY PROPERTIES tab. Under the main PROPERTIES section, and for a selected Machine Group, you can enable the **Automatically update Connector ID Keys when new software versions are installed in the Stratusphere Hub** option. When the CID Keys call back at their callback frequencies, they will know there is an update available, and get to download the new 6.x installer for the CID Key. The CID Keys will then be able to update themselves to the latest version in session with no reboot required. To update any gold or master images, with CID Key built-in, please download the relevant CID Key installer from the Connector ID Key Software tab and update your master images as needed.

10. On the new Stratusphere 6.x Hub appliance, using PuTTY, log in using the SSH key associated with `ec2-user`. To revert to having the passwords set to the Instance ID of the Hub appliance, execute the following command:

```
sudo /home/ec2-user/awsmigrate.sh –post
```

11. Log out of the PuTTY console by entering CTRL+D.

12. The migration process is now complete.

Getting Help with Stratusphere

If you have questions or run into issues while migrating or 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, please use these online resources to your full advantage. The Support Portal includes product forums, a searchable Knowledge Base, documentation, and best practices among other items. You can visit our website at http://www.liquidware.com/.

Contacting Support

If you wish to contact our Support staff for technical assistance, please either log a request on the Liquidware Customer Support Portal or give us a call. Prior to Logging a Case you may want to 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 isolated 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, please use the following numbers:

Toll Free in USA & Canada: 1-866-914-9665

International: + 1-678-397-0460