

Implementing Stratusphere™ Database Server

For existing customers with >1000 devices, or new customers with >1000 callbacks an hour

1) Upgrade to the 4.8.1 hub

Here is the process to upgrade a Stratusphere™ Hub to the latest version:

1. Liquidware Labs recommends taking a snapshot of the Stratusphere™ Hub before applying any updates. We recommend you shut down the Stratusphere™ appliance using the 'Shut Down Guest' option within the VI/vSphere Client. Take a snapshot of the Stratusphere™ Hub appliance and when finished, power ON the Hub again.
2. Log into the Stratusphere™ Hub console using `ssconsole/sspassword` credentials.
3. The Stratusphere™ Hub needs to connect to the Internet to check for and download updates. If there is a proxy involved, please run the "set software update proxy <proxy-server-ip:port>" command. Stratusphere™ does not support authenticated proxies at this time. Please contact Liquidware Labs Customer Support for additional help to manually upgrade the Stratusphere™ Hub.
4. On the command line run "software check". This command will call back to our update servers to check if there is a new version available. It will display new version numbers if they are available.
5. On the command line run "software install latest". This command will download the updates and install them one after the other i.e. from 4.7.0 to 4.7.1 to 4.8.0 then on to 4.8.1. If a reboot is required, the appliance will reboot itself automatically.
6. If the update is stable, after a few days, please delete the snapshot taken prior to the update. Snapshots affect the overall performance of the Stratusphere™ Hub and thus need to be cleared on a timely basis.

NOTE: If using 4.6.1 or prior versions, please contact Support@LiquidwareLabs.com to request help with the upgrade process.

2) Install the Database OVF from the website.

Default disk is 30 GB, though other database sizes are available. If you wish to extend the size of the disk, instructions for manually adding a disk to the database appliance can be provided.

For VMware vSphere

The Stratusphere™ Database virtual appliance can be downloaded directly from Liquidware Labs web site onto your VMware host. To do this, open the VMware vSphere Client and connect to your target VMware vCenter host.

In the vSphere Client, select File > Deploy OVF Template... and provide the URL for the Stratusphere™ Database virtual appliance (OVF) that is listed on the Liquidware Labs product download page. You will need to register each time you visit the Liquidware Labs product download page. The virtual appliance will then automatically be downloaded and installed.

3) Configure the Database

- I. The database appliance includes a wizard for configuring the database. Follow the configuration wizard. Configuration includes the following information. If you wish to use the default value for any setting you may do so by pressing the Enter key to move directly to the next setting.
 - (1) Current Value of Hostname:
 - (2) Do you want to use DHCP (Y/N)?
 - (3) What Address IP do you want to use?
 - (4) What Netmask do you want to use?
 - (5) What is the default gateway?
 - (6) What Primary DNS server do you want to use?
 - (7) What Secondary DNS Server do you want to use?
 - (8) What Tertiary DNS Server do you want to use?
 - (9) Enable the NTP Time Server Service [Yes]?
 - (10) What NTP Time Server do you want to use?

This is an example of a completed configuration. **Please note that names and IP addresses will vary according to your environment.** If you do not see the configuration wizard when you start your database server, you can login as root/sspassword and run “/opt/lwl/bin/lwlconfig.sh” to start the configuration wizard again.

```
=====
== Stratusphere Database Pending Configuration
=====

 1) Hostname      : localhost.localdomain
* 2) DHCP        : No
* 3) IP Address  : 10.10.3.21
* 4) Netmask     : 255.255.255.0
* 5) Gateway     : 10.10.3.1

 6) DNS Server 1 : 10.0.10.10
 7) DNS Server 2 : 10.0.10.11
 8) DNS Server 3 : 10.10.10.25

 9) Enable NTP   : Yes
*10) NTP SERVER  : ntp1.liquidwarelabs.com

Do you want to save this configuration (Write/Edit/Abort/Quit/No/#) ? _
```

- II. Save your configuration using the “write” command.
- III. You will finish with a screen showing the status of your database.

```
LWL Stratusphere Database Vers: 5.0
Copyright 2011, Liquidware Labs, www.liquidwarelabs.com

My Name: localhost.localdomain
Database: (pid 3044) is running...

top - 17:45:28 up 22 min,  0 users,  load average: 0.06, 0.01, 0.00
Mem:  2058840k total,  145932k used,  1912908k free,  13420k buffers
Swap: 2097144k total,    0k used,  2097144k free,  78680k cached

Disk: Root          Used: 787M (44%)    Size: 1.9G    Free: 1.1G (56%)
Disk: Database      Used: 193M (1%)    Size: 33G     Free: 31G (99%)
Disk: Database-Logs Used: 34M (4%)     Size: 938M    Free: 855M (96%)

My IP Address : 10.10.3.21

alt-F2 Login to Console      alt-F1 This Screen_
```

4) Copy the script over and run the script on both machines

Open both console windows of Stratusphere™ Hub and database server. Having two windows open will allow you to switch easily between issuing commands to the Stratusphere™ hub and database.

To the Stratusphere™ Database

Login to your Stratusphere™ database using root/sspassword credentials, and then run the following commands.

```
scp /opt/lwl/bin/ext.preparehub.sh friend@<IP of your
Stratusphere™ Hub>:
```

To the Stratusphere™ Hub

Login to your Stratusphere™ Hub using root/sspassword credentials, and then run the following commands.

```
/home/friend/ext.preparehub.sh
```

You will see status messages for the services stopping, and then be asked for the database server IP address.

```
<IP of your database>
```

```
yes          ←To confirm the connection
```

It will ask for the sspassword password to authenticate your new connection.

On the Database

```
/opt/lwl/bin/ext.preparedb.sh
```

It will ask you to confirm the hub that the database should be connecting to with a 'y' for yes or 'n' for no. Once the database has been confirmed you will see the status for the database copying.

Once you see a status message saying

```
Importing database.... ok  
The import procedure is complete.
```

5) Verifying that you have correctly configured to an external database

Now let's verify that you have Stratusphere™ Hub has been configured and is running correctly.

- (1) On the Stratusphere™ web interface log on to the Administration console
- (2) Go to the **Hub Administration** → **Data Retention** → **Status** tab to confirm your database space in use.