



# Installing Dell Lasso & SAN HQ

Rapid EqualLogic Configuration Series  
Implementation Guide

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## Revisions

Date	Description
April 2012	initial release
August 2012	Added enabling Lasso to collect from ESXi5
March 2013	Added SAN Assist content

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# 1 Dell Lasso

## 1.1 Installation

**Note:** Lasso is available from <http://support.dell.com/tools>

**Check the Lasso Release Notes ("readme") file to view the latest supported components.**

Complete the following steps to install Lasso on the management systems running supported Microsoft Windows x86 and x64 operating systems. This step is required to capture the configuration and submit it to Dell Support for audit. The audit is used to ensure the system is configured correctly.

1. Run the .msi file to start the installer.
2. The Welcome to the Dell Lasso Installation Wizard is displayed.
3. Click **Next**.
4. When the license agreement displays, click **I Agree** to accept the terms of the agreement.
5. Click **Next** to view the readme contents.
6. Click **Next** to select destination folder and install Lasso. In the **Choose install Location** screen, the default install location is set to *%SystemDrive%\Program Files\Dell\Lasso*.
7. Select the security level from the four available security levels.  
**Save Environment, Usernames and Passwords:** This is the default security level where all the devices (IP Address, name), their credentials will be stored in the password vault. For details see Password Vault.  
  
**Save Environment, Usernames:** Only stores the devices and username in the password vault.  
  
**Save Environment:** Only the devices are stored in the password vault when selected.  
  
**Do not save any information (more secure):** Nothing is stored in the password vault. The user has to provide all the device and credential before running any collection.
8. Click **Next**.
9. At the prerequisites page, click **Next**.
10. Click **Next** again.
11. After completing the installation, the user is given the options to Launch Lasso application and help file. Uncheck these boxes if you don't want to launch the application or view the help files immediately.
12. Click **Next** to finish.



**Note:** So that Lasso can validate and collect information from an ESXi 5 host, ssh access and password authentication must be enabled in the `/etc/ssh.conf` file for each host.

To configure **SSH from vClient/vCenter** see the following steps:

1. Log in to vClient/vCenter.
2. Select your host.
3. Click the **configuration** tab.
4. Select Security Profile under Software - You will be shown the services that are available for configuration.
5. Click **Properties**.
6. Highlight **Remote Tech Support (SSH)** and click **options**.
7. For the Startup policy, choose **Start and Stop** with host and click **Restart**.
8. Click **Ok** on each dialog box to close them.

Next open up a SSH session to your host and login as root. Edit the file by using the `vi /etc/ssh/sshd_config` command.

You will need to be familiar with the vi editor to complete the operation.

9. Change the value for PasswordAuthentication no to PasswordAuthentication yes.
10. Change the value for PermitRootLogin no to PermitRootLogin yes.
11. Save the file.

## 1.2 Configuration

(Launch Help file for detailed information)

1. Start with a new configuration.
2. Enter company Information and contacts.
3. Click **Save contact** to continue.
4. Select the devices to capture by selecting the check boxes next to **Storage Arrays, Ethernet & FCoE switches, and Attached Hosts**.
5. Click Continue.
6. Enter device information (ip information, type, and credentials), and then click **Save**. Continue this for each device type.
7. When all the devices are shown as validated, start the collection.
8. Select **Yes** to upload the collection to Dell.



## 2 SAN HQ

### 2.1 Installation planning

SAN HQ enables you to monitor multiple PS Series groups from a single graphical interface. It gathers and formats performance data and other vital group information. Analyzing the data might help you improve performance and more effectively allocate group resources.

SAN HQ runs on Windows and is typically installed on a management system. We recommend that you install it on a dedicated management system so that it does not impact performance of production servers.

SAN HQ consists of a Monitor client (the Graphical User Interface) and a monitor service that works in the background and uses SNMP to poll the array and collect that information where it can be displayed by the client.

SAN Assist is an optional component of SAN Headquarters that enables you to collect, and optionally upload, PS Series group configuration diagnostic data to Dell Support for analysis and diagnosis.

### 2.2 Installation

For more information, refer to the *SAN Headquarters Installation and User's Guide* (also available for download at [www.equallogic.com](http://www.equallogic.com) ).

1. Download SAN HQ from <http://www.equallogic.com> and click **Support**.

**Note:** This site requires a user name and password. If you do not have one, please register at the site.

2. Once logged in, navigate to **Downloads > SAN Headquarters** and download the latest version.
3. Navigate to and double-click the downloaded file to start the installation.
4. At the Welcome screen, click **Next**.
5. Read the End-User License Agreement and click **I Accept** to continue.
6. Click **Next** to accept the default installation directory.
7. Click **Install SAN HQ Server and Client**.
8. Click **Next** to accept the default directory for the log files.
9. Check the **Enable TCP/IP communication** box. It will cause a prompt for server login credentials.
10. Click **Finish** to complete the installation.

### 2.3 Set Up

1. When SAN HQ is started, provide the SAN HQ Server logging information
2. When the **Add Group** wizard is launched, click **Next**.



3. Provide the Group IP address or DNS name for your SAN.
4. Provide an SNMP community name (if you don't have one, enter *public*). Click **Next**.
5. Check the box to **Enable SAN Assist** functionality, and then click **Next**.
6. On the **SAN Assist License Agreement** screen, accept the license terms, and then click **Next**.

**Note:** If you decline the license, you can continue to add the group for SAN Headquarters monitoring, but you cannot enable SAN Assist.

7. A message dialog shows that SAN Headquarters is polling the group and loading group information. When SAN Headquarters contacts the group, it opens the PS Series Group Login Credential and Syslog Selection screen (See following figure).

The screenshot shows a window titled "Add Group" with a sub-header "PS Series Group Login Credentials and Syslog Server Selection". Below the sub-header is the instruction: "Enter the group administrative credentials for the PS Series Group and select a syslog server address." The window is divided into several sections:

- Group Admin Credentials:** Contains fields for "Username:" (value: grpadmin) and "Password:" (value: \*\*\*). A note below states "Credentials will not be saved to disk."
- SAN Assist Read-Only Account Creation:** Contains fields for "New Password:" (value: \*\*\*) and "Verify Password:" (value: \*\*\*). A note below states "This will be reused by SAN HQ".
- Validation Status:** A green checkmark icon is followed by the text "Credentials Validation Succeeded". A "Test" button is located to the right.
- Group Syslog Servers:** A section with a title bar and a help icon. It displays "Current Syslog Configuration: No Syslogs Configured" and "Select SAN HQ Server IP address for Group Syslog Notification registration". Below this is a list of IP addresses: 10.10.10.110, 192.168.40.42 (highlighted in blue), 169.254.75.190, and 169.254.109.233.

At the bottom of the window are three buttons: "< Back", "Next >", and "Cancel".

**Note:** If the group configuration is invalid or if there are any problems with the SAN Headquarters server or its network connections to the group, the procedure can fail at this point. If the procedure fails, correct the problem and try again to add the group.



8. Enter the group administrator username and password.
9. Enter a password for the SAN Assist read-only account.
10. Click **Test** to validate the credentials. Providing valid credentials allows SAN Headquarters to enable the **Group Syslog Servers** panel. Observe the IP address for the **Current Syslog Configuration**.
11. Scroll through the list and Select SAN HQ Server IP address for Group Syslog Notification registration. Dell recommends a static IP address.
12. Click **Next** and enter the Customer Contact information.

**Note:** Dell Support only contacts you if, when analyzing aggregated data, it discovers an issue relevant to your PS Series groups and the service tag has ProSupport, or if you request support. To make sure that Dell Support contacts the appropriate person, supply the contact information (for example, the SAN administrator).

13. Click **Next** and enter your preferred data collection and upload settings.
14. Check the box to enable weekly data collection and then set the day, time, retry interval, and maximum number of retry attempts (which includes the initial attempt).
15. Check the box to collect diagnostics data when critical events are detected in addition to scheduled activity.
16. Check the box to allow automatic transmission of diagnostic data to Dell Support for review (See following figure).

**Add Group**

**Data collection and upload settings**  
Specify SAN Assist data gathering information preferences.

SAN Assist is capable of automatically transmitting the gathered information for inspection by Dell Support.

**Data Collection Schedule**

Enable weekly data collection on every **Monday** at **11:49 AM**

If data collection fails retry after **30** minutes and try up to **3** times.

Collect diagnostics data when critical events are detected in addition to scheduled activity.

Note: Disabling automatic transmission may require that you to manually send all gathered information to Dell Support and will result in the loss of proactive data analysis.

**Data Transmission**

Allow automatic transmission of diagnostic data to Dell Support for review.

Number of diagnostic data packages to retain: **5**

< Back    Next >    Cancel



**Note:** Checking the automatic data transmission box enables the benefit of automatically uploading the data to Dell Support for analysis. Dell recommends keeping this setting on unless continuous internet connection is not available and local data storage is preferred.

17. At the email-notification screen, enable email alerts or just click **Next** to continue.
18. Accept the default log file sizes and click **Next**.
19. Click **Next** and review your configuration settings in the **Completing the Wizard** screen.
20. Click **Add Group** to complete the wizard, or click **back** to make changes

