# Dell Lasso

# Version 4.4

## Release Notes

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## Lasso

Lasso is a Java-based utility that automates the collection of logs and configuration from servers, disk arrays (EqualLogic, PowerVault MD-Series, and EMC), Fibre Channel switches (Brocade, McData, and Cisco), Ethernet and FCoE switches (PowerConnect, Cisco, Brocade, and Force 10), Enclosures (Dell M1000e Chassis, Dell VRTX Chassis) and Management and Monitoring software.

After the collection, Lasso parses the data into an XML file, which is packaged with the original collection and encrypted. The encrypted file is uploaded to Dell Technical Support to use the hardware, software, and firmware information for troubleshooting, checking compatibility and upgrading existing equipment.

**Note**: For the latest release notes, go to **www.dell.com/serviceabilitytools/** and click **Dell Lasso Version 4.4**.

**Version**
Lasso 4.4 A02

**Release Date**
September 2013

**Previous Version**
Lasso 4.3

# Importance

RECOMMENDED: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers and software).

# Platform(s) Affected

Not applicable.

# What is Supported?

## Supported Devices

The Lasso collects data from:
- Storage Arrays:
    - Dell EMC CLARiiON Storage Processor Release 6 or later
    - Dell EMC Celerra Storage devices (NAS)
    - PowerVault MD Series arrays - MD3000, MD3000i, MD3200, MD3220, MD3200i, MD3220i  MD3600i, MD3600f, MD3620f, and MD3660f
    - PowerVault FluidFS NAS
    - EqualLogic PS series Release 4.3 or later
    - EqualLogic FluidFS NAS
    - Compellent FluidFS NAS

- Windows Operating Systems:
  - Windows Server 2003 Standard, Enterprise, and Datacenter Editions
  - Windows Server 2003 R2 Standard and Enterprise Editions
  - Windows Server 2003 x64 Standard, Enterprise, and Datacenter Editions
  - Windows Server 2003 x64 R2 Standard and Enterprise Edition
  - Windows Server 2008 R2 Standard, Enterprise, and Datacenter
  - Windows Server 2008 x64 Standard, Enterprise, and Datacenter
  - Windows Server 2008 x86 Standard, Enterprise and Datacenter Editions
  - Windows 2012 Server

  **NOTE**: Windows Server Core is not supported
- UNIX Operating Systems:
  - Linux - Red Hat Enterprise Linux up to version 6.0, SUSE Linux Enterprise Server up to SP1, CentOS, XenServer
    - Solaris
    - HP-UX
    - IBM AIX
    - VMware - ESX and ESXi servers 3.5 and later

    NOTE: Lasso 4.2 does not collect from ESX 5.1 systems
- Fibre Channel Switches:
  - McData, and Blade switches except director class switches
  - Cisco 9124
  - Brocade 200E/4424/300/5100/5300
- Ethernet and FCoE Switches:
  - Dell PowerConnect 5424/5448
  - Dell PowerConnect 6224/6248
  - Dell PowerConnect 7024/7048
  - Dell PowerConnect M6220
  - Dell PowerConnect 8024/8024F
  - Dell PowerConnect M8024/M8024K
  - Dell PowerConnect M6348
  - Dell PowerConnect B-Series 8000
  - Dell PowerConnect M8428K
  - Cisco 2960
  - Cisco 4948
  - Cisco 3750E/3750X
  - Cisco CBS 3130
  - Cisco CBS 3030
  - Cisco Catalyst 3750E
  - Cisco Nexus 5020/7000/5548
  - Dell Force10 S50/S60/S2410/S4810
  - Dell Force10 MXL 10/40GbE
  - Brocade 8000
- Enclosures
  - Dell M1000e Chassis
  - Dell VRTX Chassis

- Management and Monitoring Software
  - HIT Kit For VMware
  - SAN HQ
  - VCenter 5.0 and 5.1
- Wireless Controllers
  - Dell Networking W-Series Mobility Controllers W-7210/W-7220/W-7240/W-3200/W-3400/W-3600/W-650/W-651/W-6000

Before collecting data, make sure to perform the settings provided in Software Requirements section.

# Supported Web Browsers

Lasso supports the following Web browsers:

- Internet Explorer 9.0 and Internet Explorer 8.0

  **NOTE**: For Internet Explorer, enable scripting in Internet Options or include http://127.0.0.1 as Trusted Site.

- Mozilla Firefox 12.0, Mozilla Firefox 11.0, and Mozilla Firefox 10.0 for Windows Server 2008 Professional and Microsoft Windows Small Business Server 2011

# Software Requirements

- Windows Systems:
  - For Windows 2008 (R2), it is recommended to use administrator account during report collection. If not, do one of the following:
    - o Edit the registry on the remote host using the Windows 2008 Configuration registry script provided in the help file.
    - o Under HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\WindowsCurrentVersion\Policies\system\key, add DWORD value *'LocalAccountTokenFilterPolicy'* and set the value data to 1 and reboot the system.
  - Enable *"admin$"* and *"c$"* share to run remote commands.
  - Make sure that adequate disk space is available to temporarily store all event logs and other system data.
  - The program *xCmd.exe*, a program embedded in Lasso, may be detected as a threat by McAfee or AVG installed on the remote Windows host. To prevent this, add xCmd.exe to the trusted programs (for McAfee) or the PUP exception list (for AVG.)
- UNIX Systems:
  - For more information on Linux, Solaris, HP-UX and IBM AIX systems, see the readme file available at [ftp://ftp.emc.com/pub/emcgrab/Unix](ftp://ftp.emc.com/pub/emcgrab/Unix).
  - For more information on ESX and ESXi, see the readme file available at [ftp://ftp.emc.com/pub/emcgrab/ESX/.](ftp://ftp.emc.com/pub/emcgrab/ESX/.)

    **NOTE**: Make sure that SSH is installed and configured. Credentials for normal user is required to establish SSH session, and root password is required to run commands as root.

    **NOTE**: Make sure adequate disk space is available to store a copy of all logs and system data that is collected.
- Fibre Channel Switches: Enable Telnet on all McData switches for Lasso to collect from them.
- Ethernet Switches: Enable Telnet on all M6220 Ethernet switches.
- Command line JRE Version 1.6 or later.
- Modular Disk Storage Manager must be installed on the management station for successful MD Series collection.
- Modify the timeout value, since the default timeout value of 15 minutes may not be sufficient to collect data from PowerVault NX3500 and EqualLogic FS7500 devices. The timeout value

(nas.timeout.value) must be modified in the *NAS.properties* file available in the Lasso installation directory.

**NOTE**: The timeout value is in milliseconds.

**NOTE**: This timeout mechanism is applicable to all the devices. For collection to be successful, change or update the corresponding device properties file.

- SANsurfer CLI (FC) must be installed on the remote Windows, Linux, and VMware Host to gather FC HBA information.
- SANsurfer CLI (iSCSI) must be installed on the remote Windows, Linux, and VMware hosts to gather iSCSI HBA information.
- HBAnyware CLI (FC) must be installed on the remote Windows, Linux, and VMware hosts to gather FC HBA information.

# What's New

- Support to collect, parse, and view SAN configuration report for Dell Networking W Series Mobility Controllers. The report includes the following device features:
  - Controller Properties
  - Access Points
  - Controller License
  - Fans and Power Supplies
  - Ports, VLANs, and VLAN Mapping
  - Licensed feature Information
  - Firewall Policies
  - Authentication Methods
  - AAA Profiles
  - Authentication Server Information
  - User Information
- Support to parse and view SAN configuration report for Power Connect 5.1 Firmware.
- Support to parse and view SAN configuration report for Brocade 6520 FC switch.
- Support to collect, parse, and view SAN configuration report for EqualLogic 7.0 Firmware. The report includes the following device features:
  - Access Rules
  - Storage Containers (Per Pool)
  - Support to collect, parse, and view SAN configuration report for VCenter. The report includes the following device features:
  - VCenter Information
  - DVS Information
  - Clusters
  - Hosts
    - o NIC Information
    - o Adapter Information
  - Virtual Machines
    - o VM Tools
    - o VM Network information
  - DataStores
  - License Information

- Support to collect, parse, and view SAN configuration report for Dell VRTX Chassis. The report includes the following device features:
  - Chassis Information
  - Switch Slots
  - Chassis Slots
  - Blade MAC/WWN Addresses
  - Controllers
  - Physical Disks
  - Virtual Disks
  - PCIe Slots
  - PCIe Adapter Slots
  - SNMP Information
  - Event Filters
  - Enclosures
  - License Information
- Support to collect, parse, and view SAN Configuration report for Force10 C-Series (C300), E-Series (E1200i, E600i and E300), S-Series (S25P, S55, S4810, S4820T and S6000), Z-Series (Z9000), and MXL models. The report includes the following device features:
  - Switch Properties (Reload-Type, BurnedInMAC, HardwareRev, ServiceTag)
  - Power Supplies
  - Fan Trays
  - Inventory
  - Alarms and Temperature
  - Debug Information
  - NTP Association
  - NTP Status
  - Security Information
  - Protocol Information
  - STP-Edge Port per VLAN
  - Storm Control
    - L3 VLANs
    - Config Management Information
    - LLDP Neighbor
    - LACP Information
    - Out of Band Management Information
  - Chassis Hardware  (only applicable for Chassis models)
    - Manufacturing
    - Line Cards
    - RPM Cards
    - SFM Cards
  - Spanning Tree MST Information
  - Spanning Tree RSTP Information
  - Spanning Tree PVST Information
- Support to collect data for SAN HQ devices and also support the same IP address in "Host" and "Management and Monitoring" pages.
  - Support to collect SAN HQ group archive files (.grpx) from windows hosts.

- Support to collect, parse, and view SAN configuration report for PowerConnect 5524 and 5548 switches.
- Support to collect, parse, and view SAN configuration report for PowerConnect 8132, 8132f, 8164, and 8164f switches.
- Support to collect, parse, and view SAN configuration report for VMware ESX and ESXi hosts License information.
- Support to invoke the command line interface using Lasso.cmd.

# Fixes

The following problems were reported in earlier releases of Lasso are corrected in this release:

- LASSO-228: You can continue the collection without validating the hosts discovered by CLARiiON.
- LASSO-811: EQL Network port shows wrong port role value.
- LASSO-803: Cisco FC: Lasso collections on Cisco FC switches must not go into config mode.
- LASSO-664: On uninstalling Lasso, the Lasso entries in System Environment path still exist.
- LASSO-1072: Force10 - Lasso should execute "show interfaces configured" command to capture the Interface port description.
- LASSO-1200: Power Connect: Lasso should show the Flow control attribute under switch properties.
- DSET-1095: File upload module fails to upload in proxy environment.
- LASSO-1636: DCV does not parse the Lasso collection for Force10 and Enclosures created in Lasso 4.3.1 or older versions.
- LASSO-1634: The manual collection section in help file for Cisco Ethernet switch  shows the commands of Cisco FCoE.

# Important Notes

- Make sure IP connectivity is available to all defined devices.
- .NET framework 2.0 and SP v1.0 or later.
  **NOTE**: For EqualLogic, MD series, and Compellent SAN, Net framework 2.0 or later must be installed on the remote Windowshost to successfully collect data.
  **NOTE**: For EqualLogic, Compellent, and MD series SAN, the SANsurfer CLI (iSCSI) software must be installed on the remote Windows, Linux, and VMware hosts to successfully collect iSCSI HBA information.
  **NOTE**: For Compellent SAN, the SANsurfer CLI (FC) must be installed on the remote Windows, Linux, and VMware host to successfully collect Qlogic FC HBA collection.
  **NOTE**: For Compellent SAN, the HBAnyware CLI must be installed on the remote Windows, Linux, and VMware host to successfully collect Emulex FC HBA collection.
- To collect from EMC, use a system that is not a Fibre Channel attached host.
- To collect from EqualLogic, install Lasso on one of the iSCSI hosts.
- For ESX/ESXi, the normal or sudo user should have PasswordAuthentication or Keyboard interactive authentication enabled.
- For ESX/ESXi, the root user should have permitrootlogin enabled and the PasswordAuthentication or Keyboard interactive authentication should be enabled.
- For PowerVault MD Series devices, MD Storage Manager Software should be installed in the system running Lasso.
- For **SAN HQ** devices, Dell Equallogic SAN Headquarters Server version should be installed in the windows host.

# Known Issues

## Issue 1 (Lasso-527)

**Description**

In Lasso version 3.9.1, when any **Fibre Channel Switch** is selected from the "Type of Fibre Channel Switch" List and IP/Login credentials are provided for a different Ethernet switch, Lasso successfully validates and collects data for the selected switch but uses an incorrect script to collect the correct command strings for Cisco Switch.

**Resolution**

Provide switch credentials for the selected switch type and run the collection. Make sure that the same credentials are applied correctly while logging on to the switch.

**Versions/Systems Affected**

None

## Issue 2:

**Description**

Lasso installer may hang with a message *'Waiting for disk space calculation to be complete'.*

**Resolution**

Cancel the installation and retry.

**Versions/Systems Affected**

None

## Issue 3:

**Description**

The NX4 configuration is not sent if you run a collection for NX4 without root credentials and the **"send full collection"** option is cleared.

**Resolution**

Make sure that the **"send full collection"** option is selected before running a collection for NX4 without root credentials.

**Versions/Systems Affected**

None

## Issue 4:

**Description**

If an earlier version of Lasso is installed in a folder other than the default version, the customer configuration file is not moved to the *USERPROFILE\Dell\Lasso* folder.

**Resolution**

Move the customer configuration file or use **"Load a configuration file"** option from Lasso Welcome page to use an existing customer configuration file.

**Versions/Systems Affected**

None

## Issue 5:

**Description**

The Device Collection page may have duplicate vertical and horizontal scroll bars if the window is resized, or if there are too many devices in the configuration.

**Resolution**:

Use the full screen mode or increase the resolution.

**Versions/Systems Affected**

None

## Issue 6:

**Description**

Lasso's **"auto-discover"** feature works only for EMC CLARiiON arrays and not for hosts attached to Celerra, EqualLogic, and PowerVault MD Arrays.

**Resolution**

For those arrays, enter the name or IP address of each attached host.

**Versions/Systems Affected**

None

## Issue 7:

**Description**

spcollect command is not supported on EMC Arrays having FLARE less than R13.

**Resolution**

Run the command "getall".

**NOTE**: This command provides less information.

**Versions/Systems Affected**

None

## Issue 8:

**Description**

When Lasso is run from a Windows 7, Windows Vista, Windows Server 2008, or Windows Server 2008 R2, if the User Access Control (UAC) is activated, the MD Series data collection is not successful.

**Resolution**

Make sure the User Access Control (UAC) is deactivated.

**Versions/Systems Affected**

None

## Issue 9:

**Description**

Revalidate button should be disabled when user clicks on Edit button for any device added previously.

**Resolution**

Do not click on revalidate button while editing the device details.

**Versions/Systems Affected**

None

### Issue 10 (Lasso-263):

**Description**

Lasso fails to create collection package, when MD Series is the device in collection and the collection is done on the Windows 7 system.

**Resolution**

None

**Versions/Systems Affected**

None

### Issue 11 (Lasso-277):

**Description**

For CLARiiON array, fabrics information is not parsed in output HTML report.

**Resolution**

Refer to raw data collection for fabrics information.

**Versions/Systems Affected**

None

### Issue 12 (Lasso-557):

**Description**

**Edit** option should be disabled, when the CLARiiON attached windows hosts are validated with cache credentials.

**Resolution**

Do not click on the Edit option, since the status displays that the credentials are already validated.

**Versions/Systems Affected**

None

# Limitations

### Issue 1

**Description**

DF351714, DF449573, and LASSO-309: On importing .SAN file in Lasso 4.0/4.1/4.2, Lasso fails to display Cisco Fibre Channel switches, Brocade, Ethernet and FCoE Switches, and hosts attached to Compellent in Your Hardware Environment: Fibre Channel Switches, Ethernet and FCoE Switches, Storage Arrays, and Attached Hosts screens.

**Resolution**

None

**Versions/Systems Affected**

None

### Issue 2:

**Description**

DF521933: When multiple collections run on an ESXi 5.0 host, Lasso fails to delete the Dell Collector folder from the temporary directory.

**Resolution**

None

**Versions/Systems Affected**

None

## Issue 3:

**Description**

DF378248: **Microsoft Security Essentials** detects Lasso as a threat during Windows collection.

**Resolution**

Disable Microsoft Security Essentials during Windows Collection.

**Versions/Systems Affected**

None

## Issue 4:

**Description**

Add xCmd.exe as a trusted program in the exception list of McAfee and AVG antivirus respectively.

**Resolution**

None

**Versions/Systems Affected**

None

## Issue 5:

**Description**

Windows host validation fails if *"xCmd"* is registered erroneously.

**Resolution**:

Check the host's services to verify if *"xCmd"* is registered erroneously. If yes, run *"sc delete xCmdSvc"* on the remote host to remove it and retry validation.

**Versions/Systems Affected**

None

## Issue 6:

**Description**

Windows 2000 collections using Lasso are not supported on Windows 7 or Windows 2008 Server R2 system.

**Resolution**

None

**Versions/Systems Affected**

None

## Issue 7:

**Description**

Powerpath must be installed on the remote Windows host to get LUN mapping information in the XML and HTML format of the collection.

**Resolution**

None

## Issue 8:

**Description**

Lasso cannot be installed in folder names having special characters.

**Resolution**

None

**Versions/Systems Affected**

None

## Issue 9:

**Description**

The SAN Configuration HTML format of the collection report displays "unknown" for most attributes as minimal information is collected from VMware and 64-bit Linux hosts attached to CLARiiON or Celerra.

**Resolution**

None

**Versions/Systems Affected**

None

## Issue 10:

**Description**

To run Lasso, command line JRE Version 1.6 or later is required.

**Resolution**

None

**Versions/Systems Affected**

None

## Issue 11:

**Description**

Lasso installer does not support **SystemRoot** directory as the destination folder. Therefore, do not select this directory as the destination folder during Lasso installation.

**Resolution**

None

**Versions/Systems Affected**

None

## Issue 12:

**Description**

Lasso cannot validate the Cisco Ethernet Switches if SSH-1 protocol is enabled on the switch. Lasso supports SSH-2 protocol.

**Resolution**

None

**Versions/Systems Affected**

None

### Issue 13 (Lasso-191):

**Description**

On Force10 devices, the *"Show running"* command fails to run in model s50v.

**Resolution**

None

**Versions/Systems Affected**

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### Issue 14 (Lasso-587):

**Description**

Lasso Collects data for **MDSeries** device only when run as Administrator.

**Resolution**

None

**Versions/Systems Affected**

None

### Issue 15:

**Description**

Stacking is not supported for Power Connect 55xx and Force10 S55/S5000/S6000 Switches.

**Resolution**

None

**Versions/Systems Affected**

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# Installation

## Prerequisites

Not applicable.

## Installation Instructions

To install Lasso, use an administrator account or you must have administrator privileges. Double-click the .msi file and follow the instructions on the wizard.

## Upgrade

To upgrade or downgrade Lasso, uninstall existing version, and install the required version.

## Uninstallation

To uninstall Lasso, use one of the following options:

- Navigate to **Start -> Control Panel -> Add/Remove Programs**. Locate Lasso and click Remove.
- Navigate to **Start -> Programs -> Dell -> Lasso -> Uninstall**.
- In the installation directory, double-click **Uninstall.exe**.

# Contacting Dell

Note: If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

1. Visit **www.dell.com/support**.
2. Select your support category.
3. Verify your country or region in the **Choose a Country/Region** drop-down menu at the top of page.
4. Select the appropriate service or support link based on your need.

# Accessing Documents From Dell Support Site

To access the documents from Dell Support site:

1. Go to **dell.com/support/manuals**.
2. In the **Tell us about your Dell system** section, under **No**, select **Choose from a list of all Dell products** and click **Continue**.
3. In the **Select your product type** section, click **Software and Security**.
4. In the **Choose your Dell Software and Security** section, click the required link from the following:
   – Client System Management
   – Enterprise System Management
   – Remote Enterprise System Management
   – Serviceability Tools
5. To view the document, click the required product version.

You can also directly access the documents using the following links:

- For Remote Enterprise System Management documents — **dell.com/esmmanuals**
- For Enterprise System Management documents — **dell.com/openmanagemanuals**
- For Serviceability Tools documents — **dell.com/serviceabilitytools**
- For Client System Management documents — **dell.com/OMConnectionsClient**
- For OpenManage Connections Enterprise systems management documents — **dell.com/OMConnectionsEnterpriseSystemsManagement**
- For OpenManage Connections Client systems management documents — **dell.com/OMConnectionsClient**

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