

DELL Lasso  
Version 4.3

# Readme



This readme contains information for Lasso 4.3.

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), and Ethernet and FCoE switches (Power Connect, Cisco, Brocade, and Force 10).

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.

## What's New

- 1) Support to view SAN configurations report to analyze issues for the following FCoE switches:
  - "PowerConnect" - parse and generate configurations report for PowerConnect B8000 model switches.
  - "Brocade" - parse and generate SAN configurations report for Brocade 8000 models.
- 2) Support to view SAS HBA card information in SAN configurations for MD-Series storage connected to Windows 2012 host.
  - Collect and parse diagnostic information and logs from Windows 2012 Server with or without Hyper-V enabled.
- 3) Support to collect and parse or view vSphere 5.1 SAN configurations report.
- 4) Support to view PowerConnect switches front port stacking information for 7000, M6348, and 8000 series in SAN configurations report.
- 5) Support to collect and parse data from devices in SAN environment for Windows 8 Management Station.
- 6) Support to collect and parse data from devices in SAN environment for Windows 2012 Server.
- 7) Support to collect, parse, and view SAN Configuration report for Cisco 5020 and 5548 FCoE models. The report includes the following device features:
  - Switch Properties
  - Modules
  - VLAN Table
  - Port channel
  - Spanning Tree
  - Policy Map
  - LLDP, LACP, and VPC
  - Zones, VSAN, and Interface for Fiber Channel
- 8) Support to collect, parse, and view the SAN configurations report for PowerConnect firmware version 4.2 and 5.0. The report includes the following device features:
  - Slot Information
  - Spanning Tree Active
  - LLDP TLV
  - LLDP Remote
- 9) Support to view the SAN configuration report for DV Switches Information and DV Switch Port Information in the VMWare Hosts section.
- 10) Support to view SAN Configuration report for PowerVault MD3600F, MD6029F and MD3660F models.
- 11) Support to run Lasso under System context user.
- 12) Support to view SAN Configuration report for Brocade 300 and 5300.
- 13) Support to collect, parse, and view the SAN configuration report for Data Center Bridging (DCB) information on the following switches:
  - Power Connect
    - PFC Information
    - ClassOfService Traffic Class Group and dot1p-mapping
    - Traffic Class Group
  - Brocade Ethernet
    - Global LLDP Information
    - CEE Maps Information
    - Interface QoS Information
    - Interface DCB Information
    - Interface Media Information

- Dell Force10
    - PFC Summary
    - ETS Summary
    - Interfaces Configuration report
  - Cisco FCoE
    - PFC Information
    - Policy Map
    - LLDP Information
    - LACP Information
- 14) Support to run multiple instances of Lasso CLI simultaneously.
  - 15) Support to collect, parse, and view the SAN configuration report for FluidFS NAS storage model FS8600.
  - 16) Support to collect, parse, and view the SAN configuration report for SFP attributes on EqualLogic Array.
  - 17) Support to collect, parse, and view the SAN configuration report for RHEL version 5.9.
  - 18) Support to collect, parse, and view the SAN configuration report for Linux HitKit version 1.2.
  - 19) Support to collect, parse, and view the SAN configuration report for NIC Binding order on all Windows Operating System.
  - 20) Support to collect, parse, and view the SAN configuration report for Force 10 MXL 10/40GbE Switch.
  - 21) Support to stop default upload of the report using Lasso CLI.
  - 22) Support to collect, parse, and view Force 10 switch model S4810 with firmware version Kaveri version 8.3.12.0
  - 23) Lasso support for the latest EMC Reports/Grabs (ESX - 1.3.1, Unix - AIX 4.5.0, HP Unix 4.5.0, Linux 4.5.0, Windows Version 41)
  - 24) Support to view Windows HIT Kit version 4.5 information in SAN configuration report.
  - 25) Support to view PS Array Group information for Windows Hit Kit in SAN configuration report.
  - 26) Support to view firmware versions for both Chassis Management Controller cards on M1000e appliance in SAN Configuration report.

# Hardware and Software Requirements

## Supported Devices

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 2000 Advanced Server (Limited support)
  - 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

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

## Prerequisites

- 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 Windows host 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 HBAware 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.

## 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:
    - Edit the registry on the remote host using the Windows 2008 Configuration registry script provided in the help file.
    - Under HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\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>.
  - For more information on ESX and ESXi, see the readme file available at <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 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.

## 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

# Installation

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/Downgrade

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**.

## Notes

In case of any issue with EMCReports, see the readme file available at <ftp://ftp.emc.com/pub/emcgrab/Windows>.

## Limitations

- 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.
- DF521933: When multiple collections run on an ESXi 5.0 host, Lasso fails to delete the Dell Collector folder from the temporary directory.
- DF378248: Microsoft Security Essentials detects Lasso as a threat during Windows collection.  
**Resolution:**  
Disable Microsoft Security Essentials during Windows Collection.
- Add *xCmd.exe* as a trusted program in the exception list of McAfee and AVG antivirus respectively.
- 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.
- Windows 2000 collections using Lasso are not supported on a Windows 7 or a Windows 2008 Server R2 system.
- Powerpath must be installed on the remote Windows host to get LUN mapping information in the XML and HTML format of the collection.
- Lasso cannot be installed in folder names having special characters.
- 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.
- To run Lasso, command line JRE Version 1.6 or later is required.
- Lasso installer does not support SystemRoot directory as the destination folder. Therefore, do not select this directory as the destination folder during Lasso installation.
- Lasso cannot validate the Cisco Ethernet Switches if SSH-1 protocol is enabled on the switch. Lasso supports SSH-2 protocol.
- LASSO-191: On Force10 devices, the "*Show running*" command fails to run in model s50v.
- LASSO-587: Lasso Collects data for MDSeries device only when run as Administrator.

# Open Issues and Resolutions

## 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.

## Issue 2

### Description

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

### Resolution

Cancel the installation and retry.

## 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.

## 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.

## 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.

## 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.

## 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.

## 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.

## Issue 9 (LASSO-303)

### 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.

## 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.



## Issue 11 (Lasso- 228)

### Description

You can continue the collection without validating the hosts discovered by CLARiiON.

### Resolution

First revalidate the hosts discovered by the CLARiiON array and then proceed with the collection.

## Issue 12 (Lasso-277)

### Description

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

### Resolution

Refer to raw data collection for fabrics information.

## Issue 13 (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.

## Corrected Problems

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

- LASSO-63: HTML output for Cisco FC switch is incorrect. The layout should be changed to organize the data.
- LASSO-72: Collection of Force10 stacked switches through SSH is not successful when enable password is not configured.
- LASSO-120: Validation of Force10 switches through SSH is not successful if enable password is configured.
- LASSO-217: Lasso displays incorrect value for MD3000i Host Port IPv6 configuration status.
- LASSO-297: While running the collection, Lasso is uninstalled simultaneously.
- LASSO-396: Vlan and Port Channel Show/Hide for MAC address is not working.
- LASSO-544: For an EqualLogic array, Lasso fails to collect the Network information for all the members in a Group when there is a problem in the interface.
- LASSO-546: For PowerConnect M8428K switch, Lasso does not parse the MAC addresses.
- LASSO-550: VMNIC attribute 'Make'and 'Model' is not parsed for VMware host.
- LASSO-551: Lasso collection timeout fails for M1000e Enclosure.

- LASSO-552: Lasso should provide appropriate error message, when command fails on M1000e Enclosure.
- LASSO-555: For Windows host, the subnets included data is missing in the HTML report.
- LASSO-558: Lasso does not collect vm-support logs for normal user from EqualLogic attached VMware host.
- LASSO-559: Lasso Authenticated Proxy IP and Credentials should be disabled while uploading the collection.
- LASSO-560: While running collection for Linux host attached to MD-series, do not execute the VM-support command.
- LASSO-671: FR3.4 Lasso Periodic collection fails after 3 months.
- DF476739: When Lasso GUI is running and it is uninstalled through CLI, the system reboots.
- LASSO-752: Windows DellCollector fails with partial collection without logs.
- LASSO-809: EqualLogic group with multiple member array displays incorrect data for the Mac address in the network section of the member arrays.

# Global Support

For information on technical support, visit [www.dell.com/contactus](http://www.dell.com/contactus).

For information on documentation support, visit [dell.com/support/manuals](http://dell.com/support/manuals). Select "Choose from a list of all Dell products" option and click Continue. Click Software, Monitors, Electronics & Peripherals -> Software -> Serviceability Tools -> Lasso <version number>

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