DELL EMC System Update Version 1.5.0

User's Guide

DELL EMC

Notes, cautions, and warnings

NOTE: A NOTE indicates important information that helps you make better use of your product.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

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Contents

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Overview

DELL EMC System Update (DSU) is an application used to distribute Dell updates for Linux and Microsoft Windows Operating Systems. The DSU distributes:

- OpenManage Server Administrator
- BIOS and firmware updates for different servers

DSU for Linux:

DSU extensively uses Yum and Zypper.

- **Yellowdog Updater, Modified**
  Yellowdog Updater, Modified (YUM) is an open source command line package management utility used for Linux Operating Systems. Yellowdog Updater, Modified (YUM) primarily helps to perform automatic updates, package and dependency management, mainly for RedHat Package Manager (RPM) based distributions. Yellowdog Updater, Modified (YUM) has a command line interface and it is implemented in the Python programming language and it also has a good informational output syntax.
- **Zypper**
  Zypper is used for installing, removing, updating, and querying software packages of local and remote networked media. It has been extensively used for the openSUSE Operating Systems. It is a package management engine that powers Linux applications like Yet another Setup Tool (YaST). Zypper can download several update packages, and install them at once. Zypper is one of the fastest and powerful package manager for the Linux environment.

DSU for Microsoft Windows:

DSU supports the Microsoft Windows Operating System from 1.4.0 release onwards.

Topics:

What is new in this release

This release of DSU supports the following new features:

- Creating a Bootable ISO using script.
- Network enablement in Red Hat Enterprise Linux and SUSE Linux Enterprise Server.
- New feature options added to display
  - `--list-critical-updates`

NOTE: Ubuntu OS is pre-enabled on DSU and the support is limited. For more information, see Support for Ubuntu operating systems.

Other documents you might need

In addition to this guide, you can access the following guides available at **dell.com/support/manuals**.

- *Dell Systems Management - OpenManage Software Support Matrix*
- *Dell OpenManage Server Administrator Installation Guide**
- *Dell OpenManage Server Administrator User's Guide**

* This guide is also found on the Dell Systems Management Tools and Documentation DVD.

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Prerequisites for installing the DSU

This section lists the specific prerequisites for installing DSU.

NOTE: You must have administrator privileges if DSU is installed on the supported Microsoft Windows operating system.

NOTE: you must have root/super user permission if DSU is installed on the supported Linux operating system

Topics:

Supported hardware

DSU is supported on 11th, 12th, 13th and 14th generation of Dell's PowerEdge servers.

For more information on supported hardware for Linux Operating Systems, see *linux.dell.com/repo/hardware/omsa.html#Supported_Hardware*.

Supported Operating Systems

This section describes the list of supported Linux and Microsoft Windows operating systems.

For more information on supported RHEL/SLES Operating Systems, see *linux.dell.com/repo/hardware/omsa.html#Supported_Operating_Systems*.

NOTE: Community distros such as Fedora, CentOS, and openSUSE are not tested with this repository. Since most of the kernel drivers in this repository are in Dynamic Kernel Module Support (DKMS) format, community distros may work.

Starting DSU 1.4.0, the following Microsoft Windows Operating Systems are supported:

- Microsoft Windows Server 2008 R2
- Microsoft Windows Server 2012
- Microsoft Windows Server 2012 R2
- Microsoft Windows Server 2016

Support for Ubuntu operating systems

Starting DSU 1.4, support for Ubuntu operating systems is pre-enabled and the support is limited. All the DSU commands may function as usual without any issues.

For more information on the catalog that has the updates for Ubuntu operating system, see https://linux.dell.com/repo/hardware/ubuntu/catalog/ .

NOTE: Support for Ubuntu is pre-enabled only on 12th,13th, and 14th generation of PowerEdge systems.

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Installing DSU

You can install DSU on Microsoft Windows and Linux operating systems through Dell Update Package (DUP).

NOTE: For more information on the latest DSU DUP/RPM, see https://linux.dell.com/repo/hardware/dsu/os_independent/x86_64/.

Topics:

Installing DUP on Microsoft Windows operating systems from command line interface

To install DSU on the supported Microsoft Windows operating system, you must install Dell Update Package (DUP) using the following steps:

1 Download the latest DUP from support.dell.com.

2 Open the command prompt with administrative privileges. From the folder where DUP executable file is available, run `dupfile /i` command to install DUP on Microsoft Windows. For example, `Systems-Management_Application_YH0VX_WN64_1.5.0_A00.EXE /i`.

NOTE: To install DUP using silent installation mode, run `dupfile /s` command.

To verify if the installation is successful, run `dsu /h` on the command prompt or powershell with administrative privileges.

Installing DUP on Linux operating systems from command line interface

To install DSU on the supported Linux operating system, you must install Dell Update Package (DUP) using the following steps:

1 Download the latest DUP from support.dell.com.

2 Open the command terminal with super user or root privileges. From the folder where DUP executable file is available, run `./dupfile` command to install DUP on supported linux operating systems. For example, `./Systems-Management_Application_YH0VX_LN64_1.5.0_A00.BIN`

NOTE: To install DUP using silent installation mode, run `./dupfile –q` command.

3 Enter `q` to continue the DUP execution.

To verify if the installation is successful, run `dsu -h` on the linux terminal session with super user or root privileges.

Installing DSU on Microsoft Windows from DUP

Install DSU on supported Microsoft Windows from Dell Update Package (DUP) using the following the steps:

1 Download the latest DUP.

2 From the folder where you have saved the DSU installation file, double-click on the installation file.

DSU installation wizard is displayed with the release title, release date, description, and supported devices information.

3 Click **Install** to begin the installation.

NOTE: If any of the previous versions of DSU is not installed, a pop-up is displayed, asking the confirmation that you want to instal this particular version of DSU. Click Yes to continue.

NOTE: The installation process may take several minutes. A message is displayed about the successful installation of DSU. A message is displayed about the successful installation of DSU.

NOTE: The default location where the dsu.exe file is saved is C:\dell\Dell System Update.

Installing DSU on Linux operating systems from DUP

Install DSU on supported Linux operating systems from DELL Update Package (DUP) using the following the steps:

1 Download the latest DUP.

2 From the folder where you have saved the DSU installation file, double-click on the installation file. You also have the option to open the linux terminal session using super user or root privileges and run the DUP file.

DSU installation wizard is displayed with the release title, release date, description, and supported devices information.

3 Click **Install** to begin the installation.

Installing OpenManage Server Administrator

You can install OpenManage Server Administrator on Linux operating systems using one of the following commands:

- yum

  ```
  yum install srvadmin-all
  ```

- zypper

  ```
  zypper install srvadmin-all
  ```

To install OpenManage Server Administrator on Microsoft Windows operating systems, refer the latest *Dell OpenManage Server Administrator User's Guide*.

NOTE: OMSA does not support installation on unsupported systems. This is applicable to SC-class systems, as OMSA is not supported on these systems.

NOTE: To use a 64-bit package on a 32-bit Dell package installed (srvadmin-dell_ie) on the system, uninstall the 32-bit packages and install the 64-bit package.

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Updating the system using DSU

For a list of CLI options for systems running DSU, a description of each option, and the command syntax see the following table:

Table 1. DSU Commands for Linux and Microsoft Windows Operating Systems

DSU Commands for Linux and Microsoft Windows Operating Systems	
Using DSU Help	
Description	To access the DSU Help
Command Syntax for Linux	`dsu --help` or `dsu –h`
Command Syntax for Microsoft Windows	`dsu –help`, `dsu /?`, or `dsu /h`
Getting the DSU utility version	
Description	To get the DSU utility version
Command Syntax for Linux	`dsu --version` or `dsu –v`
Command Syntax for Microsoft Windows	`dsu --version` or `dsu /v`
Executing DSU	
Description	To get the applicable updates.
Command Syntax for Linux and Microsoft Windows	`dsu`
Run Non-Interactive Updates using DSU	
Description	To run the Non-Interactive updates.
Command Syntax for Linux	`dsu --non-interactive`, `dsu –n`, **or** `dsu –q`
Command Syntax for Microsoft Windows	`dsu --non-interactive`, `dsu /n`, **or** `dsu /q`
Viewing system inventory using DSU	
Description	To see the System Inventory.
Command Syntax for Linux	`dsu --inventory` **or** `dsu –i`
Command Syntax for Microsoft Windows	`dsu --inventory` **or** `dsu /i`
Getting supported category values using DSU	
Description	To get all the supported category values.
Command Syntax for Linux	`dsu --get-categories` **or** `dsu –g`
Command Syntax for Microsoft Windows	`dsu --get-categories` **or** `dsu /g`
Getting all components of the specified categories using DSU	

Description	To get all the upgradable components of the specified categories.
Command Syntax for Linux	`dsu --category= <CATEGORY1,CATEGORY2,..>` **or** `dsu –c`
Command Syntax for Microsoft Windows	`dsu --category= <CATEGORY1,CATEGORY2,..>` **or** `dsu /c`
Getting the upgradable updates only	
Description	To get the list of only upgradable components.
Command Syntax for Linux	`dsu --apply-upgrades-only` **or** `dsu –u`
Command Syntax for Microsoft Windows	`dsu --apply-upgrades-only` **or** `dsu /u`
Getting the downgradable updates only	
Description	To get the list of only downgradable components.
Command Syntax for Linux	`dsu --apply-downgrades-only` **or** `dsu -d`
Command Syntax for Microsoft Windows	`dsu --apply-downgrades-only` **or** `dsu /d`
Includes the equivalent updates	
Description	To get the list including equivalent components.
Command Syntax for Linux	`dsu --apply-equivalent-updates` **or** `dsu –e`
Command Syntax for Microsoft Windows	`dsu --apply-equivalent-updates` **or** `dsu /e`
Applying the updates specified in the file list	
Description	To apply the updates specified in the file list, if applicable and available in catalog.
Command Syntax for Linux	`dsu --update-list=<FILENAME1,FILENAME2,...>` **or** `dsu –l`
Command Syntax for Microsoft Windows	`dsu --update-list=<FILENAME1,FILENAME2,...>` **or** `dsu /l`
Path of the file providing the inventory	
Description	To provide the path of the inventory file.
Command Syntax for Linux	`dsu --input-inventory-file=<FILE>`
Command Syntax for Microsoft Windows	`dsu --input-inventory-file=<FILE>` **or** `dsu /input-inventory-file=<FILE>`
Destination path to save the inventory file	
Description	To provide the destination filepath to save the inventory file in XML format.
Command Syntax for Linux	`dsu --output-inventory-xml=<FILE>`

Command Syntax for Microsoft Windows	`dsu --output-inventory-xml=<FILE>` **or** `dsu /output-inventory-xml=<FILE>`
Displays a preview of the applicable updates	
Description	Displays a preview of the updated system inventory post commit.
Command Syntax for Linux	`dsu --preview` or `dsu -p`
Command Syntax for Microsoft Windows	`dsu --preview` **or** `dsu /p`
Configuration file for DSU	
Description	Configuration the file path for DSU.
Command Syntax for Linux	`dsu --config=<FILE>`
Command Syntax for Microsoft Windows	`dsu --config=<FILE>`
Packages the updates into a bootable ISO or a directory	
Description	`--destination-type=<ISO | CBD>` When the type is `--destination-type=ISO` DSU runs in the interactive mode and the selected updates are delivered as a bootable ISO, upon boot the components are updated. When `ISO` if used along with `--non-interactive` Bootable ISO is created, upon boot, runs DSU in noninteractive mode. The repository location should be configured using`--config=<FILE>` When the type is `--destination-type=CBD`(where CBD is: Custom Bootable DSU) — DSU runs in the interactive mode, provides the selected updates along with deployment script.
Command Syntax for Linux	`dsu --destination-type=<TYPE>`
Command Syntax for Microsoft Windows	`dsu --destination-type=<TYPE>`
Path of the inventory collector binary file	
Description	To provide the path, of the inventory collector binary or executable file in the target machine.
Command Syntax for Linux	`dsu --ic-location=<FILE>`
Command Syntax for Microsoft Windows	`dsu –ic-location=<FILE>`
Source Location	
Description	Enables the user to specify the location of the source or repository.
Command Syntax for Linux	`dsu --source-location=<PATH>`
Command Syntax for Microsoft Windows	`dsu /source-location=<PATH>`

Path where the package is created	
Description	To provide the path of the package created using the –destination-type and to be saved. **NOTE: When using --destination-type=ISO, the ISO filename provided in --destination-location should adhere to ISO9660 file system standards. For more details refer man page of genisoimage .**
Command Syntax for Linux	`dsu --destination-location=<DIR>`
Command Syntax for Microsoft Windows	`dsu --destination-location=<DIR>`
Bootable ISO log	
Description	This option enables one to specify the location at which the log shall be written while applying the updates using the bootable ISO created using DSU.
Command Syntax for Linux	`dsu --bootable-log-location=<Log file location>`
Command Syntax for Microsoft Windows	`dsu --bootable-log-location=<Log file location>`
Configures the type of repository	
Description	To configure the source type of repository. The supported type is `<REPOSITORY>` and `<OSNATIVE>` for Linux operating system and for Microsoft Windows operating system. By default the source location will be to downloads.dell.com.
Command Syntax for Linux	`dsu --source–type=<TYPE>`
Command Syntax for Microsoft Windows	`dsu /source–type=<TYPE>` **or** `--source–type=<TYPE>`
Path to save the log file	
Description	To provide the file path to save the dsu log file.
Command Syntax for Linux	`dsu --output-log-file=/root/dsu.log`
Command Syntax for Microsoft Windows	`dsu /logfile=C:\dsu.log`
List Critical updates	
Description	To report components with critical is displayed.
Command Syntax for Linux	`dsu --list-critical-updates`
Command Syntax for Microsoft Windows	`dsu /list-critical-updates` **or**`--list-critical-updates`
Configures the logger	
Description	To configure the dsu logger. 0 to disable / OFF 1 to enable (there are 4 levels)

	1=FATAL messages will be logged 2= FATAL+ERROR messages will be logged 3=FATAL+ERROR+ WARNING messages will be logged 4=FATAL+ERROR+WARNING+User Information messages will be logged
Command Syntax for Linux	`dsu --log-level=0`
Command Syntax for Microsoft Windows	`dsu /loglevel=1`

DSU Outputs and Options

Following are the DSU outputs and options:

`[ ]` represents components which are not selected

`[*]` represents components which are selected

`[-]` represents component already at repository version (cannot be selected)

Choose: `q` to Quit without update

Choose: `c` to Commit and apply updates

Choose: `<number>` to Select/Deselect updates

Choose: `a` to Select All

Choose: `n` to Select None

Using DSU ISO

NOTE: The bootable ISO can be created with an alternative sample script which is a simple method and has multiple options for customization such as creating ISO for some specific set of platforms. For more information, see Sample scripts using DSU.

This is one of the Bootable ISO generation methods. It can be created through either of the two following methods:

- **Interactive**- DUPs are downloaded and packaged in the iso.
  `dsu –destination-type=ISO –destination-location=”/root/bootabledsu.iso”`
- **Non-interactive**- Requires a repository location to fetch DUPs.
  `dsu –n –destination-type=ISO –destination-location=”/root/bootabledsu.iso” –config=”/root/dsuconfig.xml”`

  The config.xml template is as following:

  ```
  <DSUConfig><Repository Type="YUM"><RepoLocation IP="192.168.10.11" Directory="16.08.00" UseLatestDSU="False"/></Repository></DSUConfig>
  ```

You can also perform the same operation on Microsoft Windows operating systems using the following commands:

- **Interactive**- `dsu --destination-type=ISO --destination-location= C:\output.iso`

- **Non-interactive**- `dsu --non-interactive --destination-type=ISO --destination-location= C:\output.iso --config=C:\config.xml`

DSU Return Codes

The return codes help you determine and analyze the results after the execution of DSU, see the codes described in the following table:

Table 2. DSU Return Codes

DSU Return Codes		
Number	**Return Codes**	**Description of Return Codes**
0	Success	Any successful operation performed by DSU.
1	Failure	Any failure in operation performed by DSU.
2	Insufficient Privileges	DSU not executed using ROOT privilege..
3	Invalid Log File	Failure in opening a log file or invalid log location.
4	Invalid Log Level	Invalid log level set by user.
6	Invalid Command Line Option	Invalid combination of DSU options used. For example, –`destination` type and `–non-interactive` cannot be used simultaneously.
7	Unknown Option	Incorrect option provided.
8	Reboot Required	Reboot is required for the update to be completed successfully.
13	Invalid Source Config (Configuration)	Values provided for source location or source type is invalid.
14	Invalid Inventory	Errors related to Inventory such as filename not present in the location or failed parsing inventory.
15	Invalid Category	Category value (for example: BI) may not exist, DSU returns Invalid Category
17	Invalid Config (Configuration) File	Configuration file location is invalid or failure in parsing it.
19	Invalid IC Location	Invalid Location of inventory collector.
21	Invalid Destination	Destination directory location is invalid.
22	Invalid Destination Type	Destination type is not ISO or CBD.
24	Update Failure	Failure in applying updates.
25	Update Partial Failure	Out-of-date updates are selected.
26	Update Partial Failure And Reboot Required	Out-of-date updates are selected. For successful updates, reboot is required.

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Sample options usage

The following are some of the sample options with DSU:

Sample Config file

To point to a repository hosted at **http://<ip_address>/<directory>**(for example, http://192.168.10.11/16.08.00), the config XML file is:

```
<DSUConfig>
<Repository Type="YUM">
<RepoLocation IP="192.168.10.11" Directory="16.08.00" UseLatestDSU="False"/>
</Repository>
</DSUConfig>
```

Table 3. Config file options usage

Options Usage	Description
`IP="<ipaddress>"/ Directory="<directoryaddress>"`	The attributes provides the location of repository for the update of IP and Directory as: [IP + '/' + Directory]. If the Type is `YUM`, location provided in the [IP + '/' + Directory] is expected to carry updates in rpm format. If the Type is `REPOSITORY`, location provided by the [IP + '/' + Directory] should contain catalog file in **.gz** format and same will be used to fetch updates.
`Type="YUM|REPOSITORY"`	When type is `YUM`, the command specific to the OS will be used to install updates. Updates are fetched from IP + '/' + Directory using `YUM`. When type is `REPOSITORY`, the updates will be downloaded from location provided in the `IP + '/' + Directory`.
`UseLatestDSU="True|False"`	This options is ignored in case type is `REPOSITORY`. When type is `YUM`, DSU'S version is compared from the location provided in the `IP + '/' + Directory` to the version carried by DSU bootable plug-in.

Command to create bootable non-interactive DSU ISO

Linux Operating System:

```
dsu --non-interactive --destination-type=ISO --destination-location=/root/home/output.iso --
config=/root/home/config.xml --source-type=REPOSITORY --source-location="ftp.dell.com/catalog"
```

Microsoft Windows Operating System:

```
dsu --non-interactive --destination-type=ISO --destination-location= C:\output.iso ––config=C:
\config.xml
```

Command to create bootable interactive DSU ISO

Linux Operating System:

```
dsu --destination-type=ISO --destination-location=/root/home/output.iso
```

Microsoft Windows Operating System:

```
dsu --destination-type=ISO --destination-location= C:\output.iso
```

Command to package the selected updates to a folder using existing bootable ISO

Linux Operating System:

```
dsu --destination-type=CBD --destination-location=/root/home/outdirectory --bootable-log-location=/var/log/bootmsg.log
```

Microsoft Windows Operating System:

```
dsu --destination-type=CBD --destination-location= C:\outdirectory --bootable-log-location=/var/log/bootmsg.log
```

DSU to use with custom offline repository created with Dell Repository Manager

Linux Operating System:

```
dsu --source-type=REPOSITORY --source-location=/mnt/DRM_REPO/
```

Microsoft Windows Operating System:

```
dsu --source-type=REPOSITORY --source-location=C:\DRM_REPO
```

Command to update the type of the repository

```
dsu --source-type=REPOSITORY --source-location="ftp.dell.com/catalog"
```

```
dsu --source-type=OSNATIVE
```

Command to create bootable DSU ISO

Linux Operating System:

```
dsu --destination-type=ISO -destination-location="/home/demo.iso" -n -source-type=REPOSITORY -source-location="192.168.10.11/16.08.00" -config="/usr/libexec/dell_dup/dsuconfig.xml"
```

Windows Operating System:

```
dsu --destination-type=ISO -destination-location="C:\demo.iso" -n -source-type=REPOSITORY -source-location="192.168.10.11/16.08.00" -config="C:\dsuconfig.xml"
```

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Sample scripts using DSU

Creating Bootable ISO using helper script

You can create a bootable ISO (Linux-based). The script is available in the location: http://linux.dell.com/repo/hardware/scripts/. The following sample script creates a bootable ISO.

```
dsucreateiso [options]
```

Table 4. Options used in creating bootable ISO

Workspace directory command	
Description	To provide the working space be used by the script. By default a unique temporary directory is created in /tmp/tmp/XXX which is cleared after execution.
Command for Workspace	`dsucreateiso -w WORKSPACE` **or** `dsucreateiso --workspace=WORKSPACE`
Destination path to save the ISO file	
Description	Provides the complete path for the output ISO file created by the script. By default the file is created in the current directory with the file name: dsu_bootableimage_%Y%m%d_%H%M%S.iso.
Command for output	`dsucreateiso -o OUTPUT` **or** `dsucreateiso --output=OUTPUT`
Listing of available platforms	
Description	Displays list of Linux platforms available in the given catalog file.
Command for listing platforms	`dsucreateiso -p` **or** `dsucreateiso --available-platforms`
Listing of Platforms to create ISO	
Description	Provides list of platforms for which ISO is to be created. If given platform is not present in catalog file will error out. Multiple platforms can be provided either with pipe or comma separated.
Command for listing platforms	`dsucreateiso -i INPUTPLATFORMLIST` **or** `dsucreateiso --input-platformlist=INPUTPLATFORMLIST`
Display the location of Catalog file	
Description	Provides either local/network location of repository or catalog. By default network would be enabled to download catalog and DUPs file.
Command for source location	`dsucreateiso -s SOURCELOCATION` **or** `dsucreateiso --source-location=SOURCELOCATION`
Location to create log file	
Description	Provides location of where to create log file. Creates a Logfile at the given location with the file name as dsucreateiso_%Y%m%d_%H%M%S.log. By

	default the log is located at /var/log/dsucreateiso.log and will be appended with each execution.
Command for Log file	`dsucreateiso -l LOGLOCATION` **or** `dsucreateiso --log-location= LOGLOCATION`
Apply Action for the component	
Description	Specifies the option with which dsu will be executed in mounted environment. By default no DSU option of application status are used. The options are applyall|upgrade|downgrade|equivalent.
Command for apply action	`dsucreateiso -a APPLYACTION` **or** `dsucreateiso --apply-action= APPLYACTION`
Location of the DELL Boot Plug-in	
Description	Provides the location of dellbootplugin in **tar.gz** format. Both network as well as local location can be provided. By default **dellbootplugin.tar.gz** will be downloaded from the posted location of dell.
Command for DELL BootPlug-in	`dsucreateiso -d DELLBOOTPLUGIN` **or** `dsucreateiso --dellbootplugin=DELLBOOTPLUGIN`
Location of the custom script file used for ISO creation	
Description	Provides the location of script file.
Command for location of the custom script file	`dsucreateiso -i INPUTSCRIPT` **or** `dsucreateiso --input-custom-script=INPUTSCRIPT`
Destination path for the custom script file used for ISO creation	
Description	Provides the location of script file where script file will be generated.
Command for the destination path for the custom script	`dsucreateiso -u OUTPUTSCRIPT` **or** `dsucreateiso --output-custom-script=OUTPUTSCRIPT`

Topics:

- Sample usage with script
- Using kickstart files

Sample usage with script

The following are some of the sample options with bootable ISO script:

Command to create ISO using custom catalog

```
dsucreateiso --source=/root/Catalog.xml --output=bootabledsu.iso
```

Command to create ISO by the available repository

```
dsucreateiso --source=/root --output=bootabledsu.iso
```

Command to customize the working directory

```
dsucreateiso --output=/root/bootabledsu.iso --workspace=/root/myworkspace
```

Command to create ISO with offline network and local repository

```
dsucreateiso --dellbootplugin=/root/dellbootplugin.tar.gz --source=/root --
output=bootabledsu.iso
```

Command to create ISO for particular platform

```
dsucreateiso --input-platformlist=PER730|PER830
```

Command to create ISO with the action for components

```
dsucreateiso --apply-action='upgrade|downgrade'
```

Command to create ISO with the given custom-script

```
dsucreateiso --input-custom-script=/root/apply_bundles.sh
```

Using kickstart files

Kickstart files can be used to create a Linux based Live-ISO image including DSU, using a bootable ISO creation utility, such as livecd-creator or any other bootable ISO creation utility that supports kickstart files.

Command syntax to create Live-ISO image using kickstart files: `livecd-creator --config=<kickstart_file_path> --fslabel=<filesystem_label>`

For more information, view http://linux.dell.com/repo/hardware/sampleks/

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Troubleshooting DSU

The repository setup is fine, however OMSA (srvadmin) is failing to install.

Even though DSU does not block OMSA installation or upgrade on any server, OMSA is supported on certain Linux distributions and PowerEdge server models. For more details on supported OS and server, check the latest OMSA documentation. DSU supports upgrade of OMSA (srvadmin), where an OMSA version is already installed. A fresh installation of OMSA can be performed directly with YUM commands from the same DSU repository as mentioned in Installing OpenManage Server Administrator section.

YUM based systems:

In certain circumstances, YUM caches incorrect repository metadata. Run `yum clean all` to remove old metadata, and retry. Up2date can also cache incorrect metadata at times. To remove old metadata, run `rm -f /var/spool/up2date/*`. You should be able to safely remove all the files under /var/spool/up2date/ at any time and up2date automatically downloads the required files.

If you still have problems, please report to the linux-poweredge@dell.com mailing list. Ensure to include the following information:

- Subject line should mention the name of the repository that has a problem
- Linux Distribution, arch, version, and patchlevel: eg. RHEL 6 x86_64 Update 9
- Dell system model and system id
- Error output from any commands

The repository setup is fine, OMSA (srvadmin) is installed but won't start or you can't access it.

To access OMSA and the DSU repository, the svradmin service has to be started. Before starting the service, ensure that the openipmi service is enzabledusing the following command:

```
# srvadmin-services.sh start

Starting ipmi driver: [FAILED]

# chkconfig openipmi on
```

For detailed information about OMSA trouble shooting, refer OpenManage Server Administration manuals.

Repository conflicts for updates having different version.

DSU will point to incorrect updates, if multiple repositories are configured which contains different versions of similar packages.

It is advised to disable other repositories in such cases.

The DSU commands are not working even after the successful installation of the software.

After successful installation of DSU, if the commands do not work, ensure to assess the following requirements:

- Check if the environment variables are set
- Check if you have administrator privileges if DSU is installed on the supported Windows operating system
- Check if you have root permission if DSU is installed on the supported linux operating system

Failure message is observed while creating a bootable ISO through DSU.

```
[FAILED] Failed to start Startup script for DTK

Please check 'systemctl status start-script.service' for details”
```

The message displayed can be ignored as it will not have any impact while creating a bootable ISO.

If an ISO created with DSU on iDRAC virtual media, an error message is displayed.

When a Bootable ISO created with DSU is mounted on iDRAC virtual media, possibility of the media getting un-mounted abruptly when iDRAC update option is selected. Due to which other updates available on the ISO will not continue and an error message is displayed as “file not found”. Work around in such cases, is suggested not to include iDRAC update along with other system updates while creating bootable ISO.

8

Frequently asked questions

This section lists some frequently asked questions about DSU.

NOTE: Starting DSU 1.4, the 10th generation of PowerEdge servers are not supported. This is applicable to the content in Linux repository and catalogs.

How can I select an update in the given list?

Type the number displayed against the update, to select the update. An asterisk (*) is displayed corresponding to the update after it is selected.

How can I cancel an update already selected in the given list?

It works like a toggle button. For example, if update number 7 is already selected (an asterisk (*) is displayed corresponding to the update after it is selected), and now if you select 7 as an option, it gets cancelled.

After I select the required updates, how to start the update process?

After you selected the required updates, type **c** option to start the update procedure.

Can I select more than one update?

Yes, you can select more than one update at a time. You can provide update numbers one by one as an option to select multiple updates.

Can I select all updates at the same time?

Yes, you can select all updates at a time. Select **a** option and press enter, all the updates get selected.

Can I cancel all updates at the same time?

Yes, you can cancel all updates at a time. Select **q** option and press enter, all updates get deselected.

Can I select multiple updates at the same time using a single option in the command?

No, you cannot select multiple updates. However you can select multiple updates by providing numbers one by one.

DSU Inventory displays update for a component that is installed is newer than what is available.

DSU Linux Repository is refreshed on a monthly basis, at the next refresh of the DSU Linux Repository the newer version will be carried.

I am using DSU on 10th generation of PowerEdge Systems. What are the possible outcomes that i may have to handle while using DSU with repository, catalog or RPM?

The following table describes the scenarios and the expected outcomes if you use DSU on 10th generation of PowerEdge systems.

NOTE: The Dell's PowerEdge 10G servers have reached end of support life. Version 16.12.01 is the last version of repository or catalog with support for 10th generation updates.

Table 5. Possible Outcomes for PowerEdge systems

Scenarios	Outcomes
DSU on 10th generation of PowerEdge system pointing to the newest Linux Repository (on linux.dell.com) and the Repository no longer has 10G content.	**Platform not supported** message is displayed.
DSU 1.5 RPM (sourced from linux.dell.com) on a 10th generation of PowerEdge system pointing to the newest Linux Repository that no longer has 10G content.	**Platform not supported** message is displayed.
DSU 1.4 RPM on a 10th generation of PowerEdge system pointing to an older Linux Repository that still has 10G content.	All commands work as usual.
DSU 1.4 DUP (sourced from downloads.dell.com) pointing to catalog.xml file that no longer has 10G content.	There may be two possible outcomes: • If the DUP doesn't support 10G platform, then DSU is not installed. • If DUP supports 10G platform, DSU is installed. When `dsu` command is invoked **Platform not supported** message is displayed.
I am running DSU 1.4 DUP and pointing at a legacy catalog.xml that has 10G content.	There may be two possible outcome: • If the DUP doesn't support 10G platform, then DSU is not installed. • If DUP supports 10G platform, DSU is installed. `dsu` command works as usual.

I see a message saying that the DSU could not get the inventory. What should I be doing to resolve the issue?

You have to uninstall or delete the inventory collector from the DSU working folder and retry.

On Ubuntu operating system, I see a message "genisoimage: command not found. Please install genisoimage to create bootable iso". What am I supposed to do?

To troubleshoot the issue, execute the following command: `sudo apt-get install genisoimage`. By executing the command, you are installing the genisoimage to generate the ISO.

On Linux operating system, I see a message "mkisofs: command not found. Please install mkisofs to create bootable iso". What am I supposed to do?

To troubleshoot the issue, execute the following command: `yum install mkisofs` on RHEL operating systems and `zypper install mkisofs` on SLES operating systems.

On Microsoft Windows operating system, when I execute the command "dsu", I see a message "dsu is not recognized as an internal or external command, operable program or batch file". What am I supposed to do?

To troubleshoot the issue, you must add the dsu install path to environmental variable by executing following command with administrator privileges: `setx PATH=%PATH%;C:\Dell\Dell System Update`.

There are few components that are listed when I execute the command `dsu –i` or `dsu /i`. However, I am not able to view these components in the comparison report. Why do I see the difference?

Though the components are listed after executing the command, there may be no updates available for certain components in the catalog. You may view the components in the comparison report if an update is available for that particular component in the catalog.

I get a warning message saying "Inventory collector returned with partial failure". How do I get more information about the potential issue?

Check the IC log to get more information regarding the failure. You can find the log file in **C:\ProgramData\Dell\UpdatePackage\log** on Microsoft Windows operating systems and **/var/log/dell/** on Linux operating systems.

I see a message saying “Failed to parse config file” with exit code 17. What should I do to troubleshoot and resolve the issue?

The config file may not be filled correctly. Refer the configuration schema information in the `dsuconfig.xml` section in Using DSU bootable ISO topic.

I see a message “unable to get the inventory collector path from catalog”. What should I do to troubleshoot and resolve the issue?

For more information on the inventory collector path, check the catalog file.

Sample inventory collector data from catalog.xml:

- WIN64: `<InventoryComponent schemaVersion="2.0" releaseID="WF06C" hashMD5="0dbe6b18f0ebf247ea317c51c7257ff4" path="FOLDER04054889M/1/invcol_WF06C_WIN64_16.12.200.896_A00.exe" dateTime="2016-11-25T16:25:47Z" releaseDate="November 25, 2016" vendorVersion="16.12.200.896" dellVersion="A00" osCode="WIN64" />`
- LIN64: `<InventoryComponent schemaVersion="2.0" releaseID="WF06C" hashMD5="2778b35ac99d4fb7a6c09aa04d095ca6" path="FOLDER04054886M/1/invcol_WF06C_LN64_16.12.200.896_A00" dateTime="2016-11-25T16:25:47Z" releaseDate="November 25, 2016" vendorVersion="16.12.200.896" dellVersion="A00" osCode="LIN64" />`

When we create a bootable ISO using the ./dsucreateiso script, does it include files such as LC OS Driver Packs, DSET and other files?

Yes, using the script the repository is being created with the Linux bundles. As in mounted environment, DSU is being executed which applies filters to remove the LC OS Driver Packs and the other files.

Which is the default directory to output the ISO?

Executing directory with ISO name as dsu_bootableimage_%Y%m%d_%H%M%S is the default directory to output the ISO.

Where to look for the log files while using the dsucreateiso command?

The log files are located in /var/log/ with the log filename as **dsucreateiso.log**.