Rev. A02
2017 - 02

Dell Networking OS10 Enterprise Edition 10.2.2E Release Notes

This information describes the new features and known issues for OS10 Enterprise Edition, Release 10.2.2E.

For documentation about the supported Dell open network install environment (ONIE)-enabled hardware platforms, see www.dell.com/networking.

Document revision history

A00	10.2.0E release (2016-10) — Initial release
A01	10.2.1E release (2016-11) — Added security vulnerabilities.
A02	10.2.2E release (2017-02) — Added new features; updated known and fixed issues.

Contents

Supported hardware

The Dell Networking switches supported in the OS10 Enterprise Edition release 10.2.2E are:

- S3048-ON, release 10.2.0E or later
- S4048-ON, release 10.2.0E or later
- S4048T-ON, release 10.2.0E or later
- S6000-ON, release 10.2.0E or later
- S6010-ON, release 10.2.0E or later

Restrictions

- The OS10 Enterprise Edition 10.2.2E software is supported only on a Dell ONIE-enabled switch. For a list of supported Dell switches, see Supported hardware.
- Dell does not provide support for third-party software and drivers, community projects, code development, or implementation and development of security rules and policies.

New in this Release

System clock	If the system clock is out of synch with the network time protocol (NTP) time, change the system time using the `clock set` command in EXEC mode. The hardware-based real-clock time (RTC) is reset to the new system time. To display current clock settings, enter the `show clock` command.
Next boot preference	Configure the OS10 image in partition A or B to load at the next system reboot using the `boot system` command in EXEC mode.
Management port: Default route	Set up remote access to OS10 by configuring a management route after you assign an IPv4 or IPv6 address to the management port (`management route` command). The default management route is the path used to remotely access the system from a different network.
Port channels: Add to a VLAN	Add a port channel as a tagged member of a VLAN by configuring the port channel in trunk mode with the allowed VLAN. Add a port channel as an untagged member by configuring the port channel in access mode with the allowed VLAN.
Virtual link trunking (VLT)	The VLT configuration procedure is modified. VLT commands and show outputs are enhanced.
Security	The Linux kernel vulnerability called Dirty (copy-on-write) COW has been fixed in release 10.2.2E.

OS10 10.2.2E Download

Before you install the OS10 10.2.2E Enterprise Edition, you must purchase the software and download the image.

- Purchase the software image with an After Point-of-Sale (APOS) order. When the order is fulfilled, you receive an email notification with a software entitlement ID, order number, and link to the Dell Digital Locker (DDL). For information about how to use the Dell Digital Locker, see the Quick Start Guide. For more information about how to create a Dell My Account, see My Account FAQs.
- Bind the software entitlement to the support contract for the switch on which you want to run OS10 Enterprise Edition. The software purchase allows you to download only new OS10 Enterprise Edition versions that are posted during the 90-day warranty period by default. A Dell ProSupport or ProSupport Plus contract allows you to extend the software entitlement. Bind the software entitlement to the service tag with an associated support contract within the 90-day period.
- Download the OS10 10.2.2E Enterprise Edition software image from DDL.

You can only install the OS10 10.2.2E release on an ONIE-enabled switch that has no operating system (OS) installed:

- A new switch with no installed OS
- A replacement switch from Dell Return Material Authorization (RMA) with no installed OS
- A switch that you want to convert from OS9 or a third-party OS after you remove (wipe clean) the original OS

To bind the OS10 10.2.2E Enterprise Edition entitlement with a switch:

1. Sign in to DDL using the credentials for your account.
2. Locate the entry for your entitlement ID and order number sent by email. Click the product name.
3. On the Product page in the `Product` tab, the `Assigned To:` field is blank. Click `Key Available for Download`.
4. In the `Assigned To: Bind to:` and `Re-enter ID:` fields, enter the service tag (STAG) of the switch for which you purchased the OS10 Enterprise Edition.

5 Click `Submit`.

NOTE: Because OS10 10.2.2E does not require a license to run, it is not necessary to install the license. Future OS10 Enterprise Edition releases will, however, require a license.

To download the OS10 10.2.2E Enterprise Edition software image:

1 In DDL, click the `Available Downloads` tab.
2 Select the OS10 Enterprise Edition release to download and click `Download`.
3 Read the Dell End User License Agreement and click `Yes, I agree`.
4 Select how you want to download the software files and click `Download Now`.

After you download the OS10 10.2.2E Enterprise Edition software, install OS10 on the switch by following the installation instructions in the *OS10 Enterprise Edition 10.2.2E User Guide*.

Known software behavior

BGP

- By default, routes learned on multiple paths to EBGP peers are advertised to IBGP peers with the next-hop local IP address. This behavior allows for local repair of atomic failure of any external peers.
- Fast external failover is enabled by default. To disable or re-enable it, enter the `[no] fast-external-fallover` command. For the `fast-external-fallover` command to take effect on an established BGP session, you must reset the session using the `clear ip bgp {* | peer-ipv4-address | peer-ipv6-address}` command.
- Enabling the BGP add-paths globally for all BGP neighbors is not supported (`add-path` command in ROUTER-BGPv4-AF or ROUTER-BGPv6-AF mode). To enable the BGP add-path for one neighbor, use the `add-path` command in ROUTER-BGP-NEIGHBOR-AF mode.

DHCP

- DHCP automatic address allocation — before you configure a DHCP address pool, you must configure a DHCP server interface with an IP address in the range used in the DHCP pool. If you configure the DHCP pool first and then configure a DHCP server interface, you must restart the DHCP service using the `disable` and `no disable` commands to enable automatic DHCP address allocation. Select one of the choices for a successful DHCP pool commit:
  - Configure manual binding for a host/hardware MAC address in the IP address range used for the DHCP pool.
  - Configure a network statement with a valid IP address range.
- Enabling DHCP client on the management interface — DHCP is not enabled on the management interface by default. To configure an IP address on the management port using a DHCP server, enable the DHCP client by entering the `system "sudo mgmt-port dhcp enable"` command in EXEC mode. Reload the switch to apply the DHCP client configuration. Enter the `system "sudo mgmt-port dhcp disable"` command to disable DHCP client on the management interface.

  ```
  OS10# system "sudo mgmt-port dhcp enable"
  ```

SupportAssist

- SupportAssist requires a name-server and a default route to be configured (see AR-8124 in Known issues).
- The `proxy server ip` command does not support an IPv6 address to reach the SupportAssist server in this release.
- Automated email notification at the time of a hardware fault alert, automatic case creation, automatic part dispatch, or reports are not supported in this release.

VLANs

The valid VLAN ID range displays as `1-4093`. VLAN ID 4094 is reserved for internal use in a VLT domain.

VLT

To check MAC address table entries on VLT peers, use the `show vlt mac-inconsistency` command. Use the `show vlt` *`domain-name`* `mismatch` command to identify mismatches in VLT configuration on peer switches.

```
OS10# show vlt-mac-inconsistency
Checking Vlan 228 .. Found 7 inconsistencies .. Progress 100%
VLAN 128
----------
MAC 00:00:00:00:00:02 is missing from Node(s) 2
VLAN 1
----------
MAC 00:a0:c9:00:00:18 is missing from Node(s) 2
MAC 00:a0:c9:00:00:20 is missing from Node(s) 2
VLAN 131
----------
MAC 00:00:00:00:00:02 is missing from Node(s) 2
VLAN 132
----------
MAC 00:00:00:00:00:02 is missing from Node(s) 2
VLAN 135
----------
MAC 00:00:00:00:00:02 is missing from Node(s) 2
VLAN 137
----------
MAC 00:00:00:00:00:02 is missing from Node(s) 2

Run "show vlt d1 mismatch ..." commands to identify configuration issues
```

Fixed issues

BGP

AR-8935	Peers move to the Shutdown state after removing the add-path configuration in address-family IPv6 mode. Bring up the peer admin manually.

Route Map

AR-8146	Commit fails when a match statement is added to an existing route-map with different match attributes. Use the `commit` command after creating a route-map.

Unsupported

AR-8928	The `notifications` command is not supported in this release.

Known issues

ARP

AR-10325	After you configure a static entry in the ARP mapping table for an interface in L3 mode, you cannot reconfigure the interface in L2 mode (`switchport` command) even after you remove the static ARP entry. There is no known workaround.

BGP

AR-7428	BGP neighbor session state change logs are not generated for a password change scenario. Use the `show ip bgp` and `show ip bgp neighbors` commands to observe the BGP neighbor session state in the change logs.
AR-7947	With scaled routes, the `show ip bgp` command output may take time to display. There is no workaround available in this release.
AR-8340	When the `as-path multipath relax` command is configured, deterministic-med functionality does not work. There is no workaround available in this release.
AR-8548	In a route-reflector scenario, the cluster list is not displayed in the `show ip bgp prefix` command output. There is no workaround available in this release.
AR-8612	In the `show ip bgp` command, the advertised field is not updated properly. Use the `show ip bgp neighbors` *`ip-address/mask`* `advertised-routes` command to view the advertised routes.
AR-8868	BGP advertises the Management IP address as the remote router ID to its neighbors. There is no workaround available in this release.
AR-8935	Peers move to the Shutdown state after removing the add-path configuration in address-family IPv6 mode. Bring up the peer admin manually.

Candidate Configuration

AR-7605	Copying configuration files from external sources to candidate configurations is not available. Copy the configuration file to the local file system, then use the `batch` *`filename`* command to apply the configuration.

Interfaces

AR-8974	Configuring a fixed speed does not work on the Management interface. Configure auto or fixed speed on the remote end of the Management interface.
AR-9674	The IP address of the loopback interface may not be displayed in the list of connected routes. Remove and reconfigure the loopback interface.

LLDP

AR-8626	SNMPWALK on `lldpRemManAddrTable` object in LLDPMIB may return an error. There is no workaround available in this release.
AR-8893	LLDP SNMP MIBWALK output may show an unknown OID error. There is no workaround available in this release.

QoS

AR-9000	After you save the configuration and reload the switch , QoS classification of traffic classes may not work properly. Remove the `qos` policy map and re-apply it on the interface.

Running Configuration

AR-7961	In `show running-configuration` output, class maps and policy maps of type `qos` are not displayed.

Security

AR-7594	If you configure multiple RADIUS server hosts and if none of them are reachable, you are not notified until the SSH connection times out. RADIUS does not time out after all unsuccessful attempts. It may take up to two minutes to receive the password prompt back.

Serviceability

AR-8427	Formatting or filtering using the `show tech-support` command is not applied on sub commands. Use the `sosreport` command instead.

SNMP

AR-7691	SNMPWALK may time out at times. Run the SNMPWALK with an increased SNMP request time-out value.
AR-9345	In response to an `snmpget` request, LACP MIBs may take up to 30 seconds to respond with correct values after a port channel's operational state becomes active. Re-enter the `snmpget` command within 30 seconds after a port channel comes up in order to retrieve the correct values.

System Management

AR-9504	When you reconfigure the host name, the change is not shown in syslog events until you reload the switch. Save the current configuration and reload the switch with the saved configuration.

Unsupported

AR-8835	Below are the MIBs which are not supported but enabled: • NET-SNMP-MIB • NET-SNMP-AGENT-MIB • DISMAN-EVENT-MIB • UCD-SNMP-MIB
AR-8917	The `validate` command is not supported in this release.

VRRP

AR-8661	VRRP functionality does not work when an interface IP address and a VRRP IP address are the same. Use a different IP address as the primary interface IP address and a VRRP IP address.
AR-10090	In a scaled VRRP configuration, if you reconfigure the advertise interval to centiseconds, some VRRP instances may remain in init (initializing) state. Remove and reconfigure the VRRP group.

Installation and upgrade

For complete installation and upgrade information, see the *Dell Networking OS10 Enterprise Edition User Guide, Release 10.2.2E*.

MIBs

Release 10.2.2E supports the following MIBs and standards:

- ENTITY-MIB, RFC 6933
- HOST-RESOURCES-MIB, RFC 2790
- IEEE8023-LAG-MIB, IEEE 802.3ad
- IF-MIB, RFC 2863
- IP-FORWARD-MIB, RFC 4292
- IP-MIB, RFC 4293
- LLDP-MIB, IEEE 802.1ab-2005
- RFC1213-MIB, RFC 1213
- SNMP-FRAMEWORK-MIB, RFC 3411
- SNMP-MPD-MIB, RFC 3412
- SNMPv2-MIB, RFC 3418
- TCP-MIB, RFC 4022
- UDP-MIB, RFC 4113

Support resources

The Dell Networking Support site provides a range of documents and tools to assist you with effectively using Dell Networking devices. Through the support site you can obtain technical information regarding Dell Networking products, access software upgrades and patches, download available management software, and manage your open cases. The Dell Networking support site provides integrated, secure access to these services.

To access the Dell Networking Support site, go to www.dell.com/support/. To display information in your language, scroll down to the bottom of the page and select your country from the drop-down menu.

- To obtain product-specific information, enter the 7-character service tag or 11-digit express service code of your switch and click **Submit**.

  To view the service tag or express service code, pull out the luggage tag on the chassis or enter the `show chassis` command from the CLI.
- To receive additional kinds of technical support, click **Contact Us**, then click **Technical Support**.

To access system documentation, see www.dell.com/manuals/.

To search for drivers and downloads, see www.dell.com/drivers/.

To participate in Dell community blogs and forums, see www.dell.com/community.