

OneController Release Notes

Software Version v01.01.02.0021

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Contact

Extreme Networks, Inc. 145 Rio Robles San Jose, CA 95134 Tel: +1 408-579-2800 Toll-free: +1 888-257-3000

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1 Overview

These release notes document the Extreme Networks SDN OneController v01.01.02.0021.

This chapter contains the following sections:

- New Features in OneController 1.0 on page 4
- OneController Models on page 6
- OneC-V Supplemental Installation Instructions on page 6
- OneController Compatibility Matrix on page 6
- OpenFlow Supported Platforms on page 7
- Licensing Information on page 7
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New Features in OneController 1.0

This section lists the new features in OneController 1.0.

Multiple features are installed with OneController. Several of these features are also active (functioning). You can make installed, but inactive, features active (see *OneController Installation and User Guide*).

The following table lists all OneController installed features, and indicates which ones are active by default (\checkmark in **Active** column).

Feature	Description	Active		
AAA	Authentication, Authorization, and Accounting			
ADSAL	API Driven Service Abstraction Layer			
ARP Manager	Address Resolution Protocol Manager	1		
BGP	Border Gateway Protocol			
Controller	OpenDaylight Controller and its Config Plugins	1		
COPS	Common Open Policy Service			
DLUX	Web UI with Extreme Platform Manager	1		
Felix Dependency Manager	OSGi Dependency Management	1		

Table 1: List of Installed and Active Features



Feature	Description	Active		
FRM	Forwarding Rules Manager	✓		
GBP	Group Based Policy			
Gemini Web	OSGi Web Container	✓		
Host Tracker	Catalogs Hosts in the Network			
Jackson JAX RS	Java Data Parsing Tools	✓		
Jersey	RESTful Web Services framework	1		
Jetty	Java Servlet Container	1		
LISP	Locator/Identifier Separation Protocol			
MDSAL	Model Driven Service Abstraction Layer	✓		
MDSAL API Docs	API Explorer based on Swagger	1		
NETCONF	Network Configuration Protocol	✓		
Netty Config	Netty.io Configuration API	✓		
OpenFlow	OpenFlow Protocol Plugins	✓		
OVSDB	Open vSwitch Database Protocol			
PCEP	Path Computation Element Communication Protocol			
Platform Manager	OneController Platform Manager API	1		
Plugin2OC	Plugin to OpenContrail			
RESTConf	REST API for accessing YANG / NETCONF	1		
SDNI	SDN Interface (Cross-Controller Federation)			
SFC	Service Function Chaining			
SLF4J Logging	Simple Logging Façade for Java	1		
SNBI	Secure Network Bootstrapping Infrastructure			
SNMP	Simple Network Management Protocol			
Spring	Spring Dependency Injection Framework	1		
Stats Manager	Send Statistics Requests to OpenFlow Nodes			
Switch Manager	Catalogs Capabilities of Network Elements			
Tomcat	Java Servlet Container			
Topology Manager	Network Topology Manager			
TTP	Table Type Patterns			
VTN	Virtual Tenant Network			
YANG	Tools for YANG models			

 Table 1: List of Installed and Active Features (Continued)



OneController Models

OneController is available in two models:

- OneC-A-600—physical appliance
- OneC-V-virtual appliance

OneC-V Supplemental Installation Instructions

To ensure that you have the correct, most up-to-date installation of OneC-V:

- 1 Install and deploy the OVA file (see "Installing OneController Virtual Machine" in the *OneController Installation and User Guide*).
- 2 Upgrade the OneC-V software (see "Upgrading OneController" in the OneController Installation and User Guide).

OneController Compatibility Matrix

OneController 1.0 has been validated to be compatible with the following combination of Extreme Networks and third-party products:

- OneController v1.0
- NetSight v6.2
- ExtremeXOS v15.7
- OneFabric Connect v2.05
- Open vSwitch 2.0.2
- OpenStack Juno-Devstack
- HyperGlance 3.5_Beta1_50
- Purview 6.2.0.157

OpenFlow Supported Platforms

OpenFlow is supported on the following platforms:

- Summit X440, X430, X460, X460-G2, X480, X670, X670-G2, and X770 series switches
- E4G-200 and 400 cell site routers
- BlackDiamond X8 with a single Management module
- BlackDiamond 8900 (XL-series) and C-series with single Management module only

Licensing Information

OneC-V

OneC-V is available as subscription that includes $24 \times 7 \times 365$ TAC support, software updates, and upgrades.

For OneController 1.0 release, OneC-V comes with a fixed capacity of eight cores and cannot be changed. Future releases of OneController will provide purchasable capacity increases in increments of eight cores.

OneC-A-600

The OneC-A-600 hardware appliance comes with the OneController software installed and with perpetual right-to-use and usage of all 24 cores by OneController. You may purchase a service contract to entitle you to software updates, upgrades, and bug fixes.

Web Browser Recommendations

We recommend the following web browsers for use with the OneController DLUX GUI:

- Mozilla Firefox
- Google Chrome

OneController Open Ports

OneController IPv4 Open Ports

The following lists the OneController open ports for IPv4:

JMX

TCP dport 1099

Web socket server

TCP dport 8185

SNMP4SDN

UDP dport 162

BGP

TCP dport 179

UDP dport 179

BGP/PCEP (BGP/Path Computation Element Protocol)

TCP dport 1790

UDP dport 1790

PCEP (Path Computation Element Protocol)

TCP dport 4189

UDP dport 4189

JConsole

TCP dport 5005

UDP dport 5005

Java debug access

TCP dport 8000



ODL Clustering-Related Messages

TCP dport 2550

UDP dport 2550

TCP dport 2551

UDP dport 2551

TCP dport 2552

UDP dport 2552

TCP dport 5666

UDP dport 5666

TCP dport 7800

UDP dport 7800

TCP dport 12001

UDP dport 12001

NTP Connections

UDP dport 123

SSH Connections

TCP dport 22

SNMP Agent Access

TCP dport 161

UDP dport 161

Inter-Langley Connection Access

TCP dport 20506

TCP dport 20504

JMX

TCP dport 1088



NETCONF

TCP dport 8383

UDP dport 8383

TCP dport 1830

UDP dport 1830

OSGi Console

TCP dport 2400

OpenFlow

TCP dport 6633

UDP dport 6633

TCP dport 6653

UDP dport 6653

NSX Protocol

TCP dport 6632

UDP dport 6632

Connections to OpenDaylight Web Portal

TCP dport 8080

TCP dport 8181

TCP dport 8282

Connections to OVSDB

TCP dport 6640

UDP dport 6640

Dynamic Ports–Used in Response to Controller Queries

TCP dport 3 7:65535

UDP dport 32767:65535



Ping

icmp icmp-type echo-request

OneController IPv6 Open Ports

The following lists the OneController open ports for IPv6:

NTP Connections

UDP dport 123

SSH Connections

TCP dport 22

SNMP Agent Access

TCP dport 161

UDP dport 161

Dynamic Ports-Used in Response to Controller Queries

TCP dport 32767:65535

UDP dport 32767:65535

Service Notifications

To receive proactive service notification about newly released software or technical service communications (for example, field notices, product change notices, etc.), please register at:

www.extremenetworks.com/support/service-notification-form

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Additional SDN Documentation

Extreme Networks provides the following additional SDN documentation available at www.extremenetworks.com/documentation.

Table 2: Additional SDN Documentation

Title	Content	
User		
SDN Getting Started Guide	Explains Extreme Networks SDN offerings and provides various high-level resources.	
OneController Installation and User Guide	Covers OneController installation and usage for both the OneC-V (virtual machine) and OneC- A-600 (hardware appliance).	
OneC-A-600 Quick Reference Card	Covers basic installation, setup, configuration, and compliance information for the OneC-A- 600.	
Developer		
Developers Resources Guide	Covers information for developers regarding Extreme Networks SDN architecture, resources, available APIs, communities/forums, points of contact, and support.	
OneController SAL Programmers Guide	Covers Service Abstraction Layer (SAL) developer information.	
ExtremeXOS SOAP/XML API Programmers Guide	ExtremeXOS SOAP/XML API reference.	
ExtremeXOS Native C/ C++ API Programmers Guide	ExtremeXOS Native C/C++ API reference.	
Purview API Programmers Guide	Purview API reference.	
ExtremeXOS Python API Programmers Guide	ExtremeXOS Python API reference.	
OneFabric Connect API Programmers Guide	OneFabric Connect API reference.	

2 Open Issues, Known Behaviors, and Resolved Issues

This chapter describes items needing further clarification and behaviors that might not be intuitive.

This chapter contains the following sections:

- Open Issues on page 13
- Resolved Issues in OneController v01.01.02.0021 on page 18

Open Issues

The following are the open issues for supported features in OneController v01.01.02.0021.

ID Number	Description		
General			
xdn0000227	OneController does not send flow table and aggregate statistics, even though it has received statistics from network entities.		
xdn0000121	After installing a flow through L2Switch in OneController, flow, inventory, and stats exceptions occur.		
xdn0000102	After enabling the L2Switch and MDSAL features in OneController, default flows "Drop All" and "LLDP" are installed onto the Summits series switches. The "Drop All" flow literally drops everything, including data packets, except LLDP packets, so inherently no flow would ever be installed.		
	Workaround: Edit the 58-12switchmain.xml file manually to not install the "Drop All" flow, then reboot OneController.		
	vi /usr/opendaylight/etc/opendaylight/karaf/58- l2switchmain.xml		
	Change this line from "true" to "false".		
	<is-install-dropall-flow>falseflow></is-install-dropall-flow>		
xdn0000284	When either the idle or hard timeout is reached on an active flow, the flow appears to be removed as expected. However, trying to re-push the same flow again is not accepted.		
	Workaround: Delete the flow or change the timeout or other values for the flow.		
xdn0000251	Change event subscription works on namespace level, but not on path within the namespace.		
xdn0000277	Host entries detected by address-tracker in OneController never time out, even after stopping the traffic.		

Table 3: Open Issues for OneController v01.01.02.0021

ID Number	Description			
Control Plane				
xdn0000264	With the OneController odl-extreme-occonnect feature installed "default" flows are pushed to the switch with respect to the OpenFlow-enabled VLAN ports. After disabling, and then enabling, OpenFlow on the switch, the "default" flows installed are either partial or not present.			
	Workaround: Reboot OneController, and then enable OpenFlow on the switch.			
GUI				
xdn0000238	OneController GUI: After clicking Nodes on the left navigation bar, the "Node Name" of each connected node always appears as "None".			
xdn0000230	OneController GUI: "Nodes" command does not appear in the left navigation bar for several minutes after nodes connect.			
xdn0000155	After deleting a pair of flows under /config/nodes/node/nodex/ table/0/, a sending request error appears on a get. The default table list icon should be returned instead.			
xdn0000152	OneController YANG UI config/config/modules and config/ operational/modules error on get. No information appears and state is "Error sending request".			
xdn0000289	The OneController GUI does not appear to refresh when viewed from an Internet Explorer web browser. Configuration changes made with the Internet Explorer browser take effect, but the changes are not reflected in the browser display.			
	Workaround: The latest releases of Firefox and Chrome provide the best experience of the OneController GUI. If you must use Internet Explorer, after submitting a change, close all open Internet Explorer sessions on your computer, and then start a new session.			
Karaf	·			
xdn0000103	After installing the following features: odl-nsf-all, odl- openflowplugin-all, odl-adsal-compatibility-all, and odl-vtn- manager-all executing the command log:tail in the Karaf command line produces an error message and you are automatically disconnected from Karaf.			
	Workaround: Add the Grep option.			
xdn0000100	Administrators with access to the operating system level of OneController can invoke the OneController (Apache Karaf) command line interface (CLI) directly from the Linux shell. The credentials to log on to the Karaf CLI are different than the ones used to log on to OneController itself.			
	Workaround: Regardless of the credentials used to log on to OneController, use user name "karaf" and password "karaf" to log on to the Karaf CLI.			

 Table 3: Open Issues for OneController v01.01.02.0021 (Continued)

ID Number	Description			
Management Plane				
xdn0000218	Sending request error appears on get of /opendaylight- inventory/config/nodes/node/table. You cannot delete flows due to get of table 0 errors.			
xdn0000248	OneController does not discover slot 2 ports when configured as egress tagged. You cannot push flows. "WARN Bad action bad out-port" message appears and flow push fails.			
OpenDaylight				
resolution. You can trac bugs.opendayligh occur when both the O	sues have been referred to the OpenDaylight development community for k these issues on OpenDaylight's bug tracking site at https:// t.org. Incorporating resolved issues by OpenDaylight into OneController will penDaylight release is deemed stable enough and OneController has an release to receive the revision.			
xdn0000119	With the L2Switch feature installed on OneC-V in a 3-node ring topology, issuing a single ping causes data and control packets to loop continuously. This appears to be due to one of the switch output ports in a flow being programmed incorrectly— instead of programming the host connected port, it programmed a ring port, causing a loop over the ring.			
	Track this issue at: https://bugs.opendaylight.org/ show_bug.cgi?id=2129			
xdn0000150	Cannot retrieve flows with flow ID from the flow table from "operational" data store for flows created by L2Switch and ones created manually using the YANG UI.			
	Track this issue at: https://bugs.opendaylight.org/ show_bug.cgi?id=2612			
xdn0000151	It takes a varying amount of time to update the port/flow statistics in OneController.			
	Track this issue at: https://bugs.opendaylight.org/ show_bug.cgi?id=2435			
xdn0000174	Unable to retrieve node-connector queue (qosprofile) statistics from OneController using the REST API.			
	Track this issue at: https://bugs.opendaylight.org/ show_bug.cgi?id=2598			
xdn0000201	L2Switch: Default flows are not installed after OneController reboots.			
	Track this issue: https://bugs.opendaylight.org/ show_bug.cgi?id=2502			
xdn0000225	OneController GUI: If you click Network on the left navigation bar, and then click Add Static Route , the Cancel button appears to have no functionality.			
	Track this issue: https://bugs.opendaylight.org/ show_bug.cgi?id=2520			

Table 3: Open Issues for OneController v	01.01.02.0021 (Continued)
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ID Number	Description			
OpenFlow				
xdn0000185	OneController OpenFlow plugin does not transmit set-dl-type- action when using action set in YANG UI.			
xdn0000186	OneController OpenFlow plugin does not transmit set-vlan-cfi- action when using action set in YANG UI.			
xdn0000189	OneController OpenFlow plugin does not transmit loopback- action when using action set in YANG UI.			
xdn0000190	OneController OpenFlow plugin does not transmit all fields in push-vlan-action when set in YANG UI.			
xdn0000192	OneController OpenFlow plugin does not transmit flood-action when using action set in YANG UI.			
xdn0000193	OneController OpenFlow plugin does not transmit sw-path- action when using action set in YANG UI.			
xdn0000194	OneController OpenFlow plugin does not transmit hw-path- action when using action set in YANG UI.			
xdn0000184	The default OpenFlow flag sent by OneController for flow installation is send_flow_rem, even though the flag was not selected through the YANG UI. Unable to use the commands OFPFC_MODIFY or OFPFC_MODIFY_STRICT to modify flows that are already installed.			
xdn0000183	OneController OpenFlow plugin reports no receipt of Echo msgReply. However, reply was sent from ExtremeXOS.			
xdn0000181	OneContoller OpenFlow plugin reports no receipt of Barrier msgReply. However, reply was sent from ExtremeXOS.			
xdn0000149	Openflow plugin error appears when Summit series switches attempt to connect with OneController. Summit series switches appear to connect properly, but OneController does not display the Summit IP addresses in the GUI nor in Karaf.			
xdn0000123	The default L2Switch Idle (1,800 secs) and hard (3,600 secs) timeouts are unrealistic for a real network and unrealistic on Summit series switches due to ACL rule limits. These default timeout values cause unwanted flows to remain in the ACL OpenFlow tables for the Summits series switches for an undesirable amount of time.			
	Workaround: Edit the timeout values.			
	vi /usr/opendaylight/etc/opendaylight/karaf/58- l2switchmain.xml			
	Change the following lines to the indicated values:			
	<pre><reactive-flow-idle-timeout>300timeout></reactive-flow-idle-timeout></pre>			
	<pre><reactive-flow-hard-timeout>0timeout></reactive-flow-hard-timeout></pre>			
xdn0000179	OneController does not send an OpenFlow flow mod packet if any of the following flags are set in the YANG UI for flow installation: CHECK_OVERLAP, RESET_COUNT, NO_PKT_COUNTS, NO_BYT_COUNTS, or SEND_FLOW_REM.			

 Table 3: Open Issues for OneController v01.01.02.0021 (Continued)

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ID Number	Description
xdn0000126	With L2 Switch feature installed, connecting Summit series switches using OpenFlow v1.0, causes a scrolling translation null point exception in the OneController Openflow plugin.
	Workaround: Do not use OpenFlow v1.0 with L2 Switch feature.
OpenStack	
xdn0000118	The Neutron Northbound API of OneController encounters a class exception when interacting with OpenStack (Icehouse version) Neutron. This mainly occurs when OpenStack is telling OneController to create a network using VTN, etc.
System Setup	
xdn0000257	Each interface of a OneController has a gateway, which is the gateway of the subnet on which the interface resides. OneController's default gateway is the gateway of the "Admin" interface.
	Workaround: It is not always desirable to have the default gateway be on the Admin interface. Administrators can override this default behavior by adding one or more static routes: On the left navigation bar of the OneController GUI, click System Configuration , Maintenance , and then Routes .
VTN	
xdn0000117	After installing the VTN feature, with ADSAL compatibility, the following node creation error appears for the Summit series switch connected to OneController:
	2014-11-10 12:51:38,286 WARN otification-1078 ToSalConversionsUtils 292 - org.opendaylight.controller.sal-compatibility - 1.1.0.Helium nodeConnector creation failed at node: OF 00:00:00:04:96:8f:94:57 with nodeConnectorUri: OF:19705861207:CONTROLLER

 Table 3: Open Issues for OneController v01.01.02.0021 (Continued)

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Resolved Issues in OneController v01.01.02.0021

The following issues were resolved in OneController v01.01.02.0021.

Table 4:	Resolved	Issues	for	OneController	v01.01.02.0021
	110301700	155465			10110110210021

ID Number	Description		
Backups			
xdn0000295	With a remote backup scheduled, leaving the Backup page (under System Configuration > Maintenance) causes the remote server to no longer be listed as the destination for the backup. However, scheduled backups are still correctly sent to the remote server.		
	To clear scheduled backups, select Never for Frequency , and then click Clear Schedule .		
GUI			
xdn0000302	No appropriate error message appears when you enter an incorrect user name, password, or directory after clicking Copy To under Maintenance > Restore .		
xdn0000297	Enabled/disabled status of ports is lost after upgrading image on OneC-A-600 hardware appliance.		
xdn0000287	Evidence of scheduled upgrades does not appear on the Maintenance > Upgrade screen.		
xdn0000309	When downloading upgrade images, the misleading text "Downloading Backup" appears.		
xdn0000319	Under Setup > Logging Server , the 'Remote Log Servers' table doesn't have a label above the check box column.		
xdn0000321	Changing system settings shows a summary of desired changes, but does not provide any positive confirmation that the changes have been accepted.		
xdn0000307	If you have only one admin user account, you can change it to a user account, and then delete it, thus removing all admin accounts.		
xdn0000308	Under Setup > Interfaces , you cannot make changes to other interface fields without entering a valid gateway address.		
xdn0000303	GUI does not correctly grant administrative access to admin users because the GUI does not add the admin user to the platform domain.		
xdn0000301	Cannot make changes to the interface using the DLUX GUI because the DLUX GUI submits "0.0.0.0" for empty IP address fields.		

ID Number	Description				
Management Plane					
xdn0000304	To use OpenFlow and similar protocols through the OneController data plane interfaces (esa0, esa1, esa2), you must allow management traffic on those interfaces. Management traffic is allowed on the data plane interfaces by default, but this can be disabled from the OneController GUI.				
	If you have disabled management traffic on a data plane interface, re-enable it:				
	 Click System Configuration, and then click Setup on the menu bar. 				
	2 Click the Interfaces tab.				
	3 Click the edit icon for a data plane interface in the table.				
	4 Select the Allow Management Traffic check box.				
	5 For each interface, ensure that the Gateway box has a valid address.				
	6 Click the Summary tab. A summary of all of your system settings appears.				
	7 Click Submit.				
OpenDaylight					
xdn0000300	You cannot use 0.0.0.0" as a destination address for a static route in the OneController GUI (System Configuration > Maintenance > Routes) making it impossible to define a static default route.				
	Workaround: Define two static routes that effectively cover the entire address range. The example below shows two static routes that combined provide equivalent functionality:				
	1st Static Route				
	Destination Address = 127.0.0.0				
	Netmask = 128.0.0.0				
	Gateway = 10.3.0.2				
	Interface = easO				
	2nd Static Route				
	Destination Address = 128.0.0.0				
	Netmask = 128.0.0.0 Gateway = 10.3.0.2				
	Interface = easO				
	As a result of the above configuration, all traffic requiring routing is forwarded through esa0 to gateway 10.3.0.2.				

Table 4: Resolved Issues for OneController v01.01.02.0021 (Continued)

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ID Number	Description		
System Setup			
xdn0000291	Under Setup > Time , you cannot set up an NTP server using a domain name. GUI only accepts IP address for NTP server.		
xdn0000318	Under Setup > Logging Server , you can create multiple log servers with the same IP address.		
xdn0000323	Under Setup > Interfaces , the Reset All button doesn't reset fields back to their original values.		
xdn0000306	When the ESAO-2 interfaces are configured with the Mgmt Traffic check box selected, the system configures 60–61 filters for the interface, so that the system should have 110 or 111 entries. However, the filter table limit is 70, so the remaining filters are lost.		

Table 4:	Resolved	Issues for	OneController	v01.01.02.0021	(Continued)
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