



# Mellanox Switchdev Ethernet

## Release Notes

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**Rev 1.0**

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## Document Revision History

*Table 1: Document Revision History*

Revision	Date	Description
Rev 1.0	April 9, 2017	Initial release of Switchdev release notes

# 1 Overview

This is Mellanox Switchdev Linux kernel driver release notes for Mellanox Ethernet switches. The open-source upstream driver is developed and maintained in the Linux kernel. The driver release versions are aligned with Linux kernel releases.

## 1.1 Supported Platforms

Product	Description
Mellanox Spectrum™ Ethernet Switch ASIC	Spectrum™, 32 Port 100GbE Switch IC
Mellanox SN2700	Spectrum™ based 100GbE 1U Open Ethernet Switch with, 32 QSFP28 ports
Mellanox SN2410	Spectrum™ based 25GbE/100GbE 1U Open Ethernet Switch, 48 SFP28 ports, 8 QSFP28 ports
Mellanox SN2100	Spectrum™ based 100GbE 1U Open Ethernet switch, 16 QSFP28 ports

## 1.2 Supported Firmware

mlxsw\_spectrum-13.1302.0120.mfa (supports all kernel versions)

## 2 Changes and New Features

**Table 2 – Changes and New Features**

Category	Description
<b>Kernel 4.11</b>	
ACL	'tc-flower' offloading for ACLs
IP Multicast	IGMP flooding enhancements
Visibility	sFlow
<b>Kernel 4.10</b>	
QoS	Support CPU Policers
<b>Kernel 4.9</b>	
L3 routing	L3 router performance enhancements
Chassis management	I2c driver for Mellanox Spectrum switch systems
<b>Kernel 4.8</b>	
L3 routing	Unicast IPv4 router
	ECMP support
Visibility	SPAN support
<b>Kernel 4.7</b>	
QoS	Shared buffer configuration using 'devlink'
	DCB and port QoS mapping
<b>Kernel 4.6</b>	
Port Configuration	'devlink' support for Port-splitter
<b>Kernel 4.5</b>	
L2 switching	Bridges and flooding control
	FDB, FDB learning and ageing time
	802.1Q bridges and PVID
	802.1D bridges
	Bond offload
	Team offload
	STP
	LLDP
	IGMP snooping
<b>Kernel 4.4</b>	
Port configuration	Switch ports representation as 'netdevice'.
	Switch ports configuration (MAC address, IP address, MTU, admin-status, operation status)

Category	Description
	'ethtool' support for query port counters, read FW version, toggle ports indicator LEDs
	VLAN filtering (vconfig) configuration for switch ports
	Promiscuous mode configuration for switch ports
Chassis management	'hwmon' implementation of the Switch ASIC for temperature and fans



## 3 Known Issues

*Table 3 – Known Issues*

#	Category	Description
1.	Network configuration	<b>Order of operations:</b> <ul style="list-style-type: none"><li>• Network configuration should be done in a bottom-up fashion.</li><li>• Teardown should be done top-down</li></ul>
2.	ACL	ACL key size: Rules that match on L2 fields and the complete IPv6 header cannot be specified.
3.	L3 routing	ECMP size: The current supported ECMP size is 32 next hops.