

Arista Networks EOS 4.22.1F Release Notes

Version: 0.3

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Enhancements in 4.22.1F

Accelerated System Update

CVX

General

Layer 2

Layer 3

Multi-agent

MPLS

Multicast

DCS-7020, DCS-7280 and DCS-7500 Series

DCS-7280R and DCS-7500R Series

DCS-7050X[2], DCS-7060X[2], DCS-7250X and DCS-7300 Series

CCS-720XP Series

DCS-7010T Series

DCS-7060X and DCS-7300 Series

DCS-7260X3 Series

7368 Series

DCS-7050X2 and DCS-7300 Series

DCS-7050CX3, DCS-7050SX3 and DCS-7300 Series

Transceiver Series

DCS-7160 Series

Resolved Caveats in 4.22.1F

Accelerated System Update

CVX

General

Layer 1

Layer 2

Layer 3

Multi-agent

Rib

MLAG

Multicast

DCS-7150 Series

DCS-7170 Series

DCS-7300 and DCS-7500 Series

DCS-7020, DCS-7280 and DCS-7500 Series

DCS-7280E and DCS-7500E Series

DCS-7280R and DCS-7500R Series

DCS-7020 Series

DCS-7050X[2], DCS-7060X[2], DCS-7250X and DCS-7300 Series

CCS-720XP Series

CCS-720XP Series

DCS-7060X2 and DCS-7300 Series

DCS-7260X3 Series

7368 Series

DCS-7050X and DCS-7300 Series

DCS-7050CX3, DCS-7050SX3 and DCS-7300 Series

vEOS Router Series

DCS-7160 Series

Known Software Caveats in 4.22.1F

Accelerated System Update

CVX

General

Layer 1

Layer 2

Layer 3

Multi-agent

Rib

MPLS

MLAG

Multicast

DCS-7150 Series

DCS-7170 Series

Containerized EOS Series

DCS-7020RA, DCS-7160, DCS-7170, DCS-7280R2A, DCS-7280RA and DCS-7500R with 7500RA or 7500R2A linecards Series

DCS-7300 and DCS-7500 Series

DCS-7020, DCS-7280 and DCS-7500 Series

DCS-7280E and DCS-7500E Series

DCS-7280R and DCS-7500R Series

DCS-7020 Series

DCS-7020RA, DCS-7280R2A, DCS-7280RA and DCS-7500R with 7500RA or 7500R2A linecards Series

DCS-7050X[2], DCS-7060X[2], DCS-7250X and DCS-7300 Series

CCS-720XP Series

DCS-7010T Series

DCS-7060X and DCS-7300 Series

DCS-7260X3 Series

7368 Series

DCS-7050 and DCS-7300 Series

DCS-7050X and DCS-7300 Series

DCS-7050X2 and DCS-7300 Series

DCS-7050CX3, DCS-7050SX3 and DCS-7300 Series

Transceiver Series

vEOS Router Series

DCS-7160 Series

Limitations and Restrictions in 4.22.1F

Accelerated System Update

CVX

General

Layer 1

Layer 2

Layer 3

Multi-agent

Rib

MLAG

Multicast

DCS-7150 Series

DCS-7170 Series

DCS-7020RA, DCS-7160, DCS-7170, DCS-7280R2A, DCS-7280RA and DCS-7500R with 7500RA or 7500R2A linecards Series

DCS-7300 and DCS-7500 Series

DCS-7020, DCS-7280 and DCS-7500 Series

DCS-7280R and DCS-7500R Series

DCS-7020 Series

DCS-7050X[2], DCS-7060X[2], DCS-7250X and DCS-7300 Series

CCS-720XP Series

DCS-7010T Series

DCS-7060X and DCS-7300 Series

DCS-7260X3 Series

7368 Series

DCS-7050X and DCS-7300 Series

DCS-7050X2 and DCS-7300 Series

DCS-7050CX3, DCS-7050SX3 and DCS-7300 Series

Transceiver Series

vEOS Router Series

DCS-7160 Series

Conditions and Impacts

EOS 4.22.1F Release Highlights

New Platforms and Hardware

- CCS-720XP-24Y6-F
- CCS-720XP-24ZY4-F
- CCS-720XP-48Y6-F
- CCS-720XP-48ZC2-F
- DCS-7050SX3-48YC8-F
- DCS-7050SX3-48YC8-R
- FAN-7011M-F
- FAN-7011M-R
- PWR-1021-AC-RED
- PWR-511-AC-BLUE
- PWR-511-AC-RED
- PWR-511-DC-BLUE
- PWR-511-DC-RED
- PWR-621-AC-RED

SNMP MIBs

- SNMPv2, SNMPv3
- RFC 3635 EtherLike-MIB
 - obsoletes RFCs 1650, 2358, 2665
- RFC 3418 SNMPv2-MIB
 - obsoletes RFCs 1450, 1907
- RFC 2863 IF-MIB
 - obsoletes RFCs 1229, 1573, 2233
- RFC 2864 IF-INVERTED-STACK-MIB
- RFC 4292 IP-FORWARD-MIB
 - obsoletes RFC 1354
- ARISTA-SW-IP-FORWARD-MIB
 - IPv4 only
- RFC 4363 Q-BRIDGE-MIB
- RFC 4188 BRIDGE-MIB
- ARISTA-BRIDGE-EXT-MIB
- RFC 4113 UDP-MIB
 - obsoletes RFC 1213
- RFC 4022 TCP-MIB
 - obsoletes RFC 1213
- RFC 4293 IP-MIB
 - obsoletes RFC 1213
- HOST-RESOURCES-MIB
- LLDP-MIB
- LLDP-EXT-DOT1-MIB

- LLDP-EXT-DOT3-MIB
- ENTITY-MIB
- ENTITY-SENSOR-MIB
- ENTITY-STATE-MIB
- RMON-MIB
 - rmonEtherStatsGroup
- RMON2-MIB
 - rmon1EthernetEnhancementGroup
- HC-RMON-MIB
 - etherStatsHighCapacityGroup
- RFC 3636 MAU-MIB
 - ifMauDefaultType and ifMauAutoNegStatus are writeable
- SNMP-TLS-TM-MIB
 - RFC 6353
- SNMP-TSM-MIB
 - RFC 5591
- ARISTA-ACL-MIB
- ARISTA-SNMP-TRANSPORTS-MIB
 - 7050X2, 7060X, 7260X, 7320X, 7060X2, 7160, 7020R
- ARISTA-SMI-MIB
 - 7050X2, 7060X, 7260X, 7320X, 7060X2, 7160, 7020R
- ARISTA-PRODUCTS-MIB
 - 7050X2, 7060X, 7260X, 7320X, 7060X2, 7160, 7020R
- ARISTA-QUEUE-MIB
 - Excluding 7150
- RFC 4273 BGP4-MIB
- RFC 4750 OSPF-MIB
- ARISTA-CONFIG-COPY-MIB
- ARISTA-CONFIG-MAN-MIB
- ARISTA-REDUNDANCY-MIB
 - 7500R, 7500E, 7300X, 7050X2, 7060X, 7260X, 7320X, 7060X2, 7160, 7020R
- MSDP-MIB
- PIM-MIB
- IGMP-MIB
- IPMROUTE-STD-MIB
- VRRPV2-MIB
- ARISTA-QOS-MIB
- ARISTA-ENTITY-SENSOR-MIB
- ARISTA-BGP4V2-MIB
- ARISTA-VRF-MIB
- ARISTA-DAEMON-MIB
- ARISTA-IF-MIB
 - 7050X2, 7060X, 7260X, 7320X, 7060X2, 7160, 7020R
- ARISTA-MAU-MIB
 - 7050X2, 7060X, 7260X, 7320X, 7060X2, 7160, 7020R
- ARISTA-PFC-MIB
 - 7050X2, 7060X, 7260X, 7320X, 7060X2, 7160, 7020R

- ARISTA-FIB-STATS-MIB
- ARISTA-GENERAL-MIB
- ARISTA-HARDWARE-UTILIZATION-MIB
- ARISTA-NEXTHOP-GROUP-MIB
- ARISTA-SW-IP-FORWARDING-MIB
- ARISTA-TEST-MIB
- ARISTA-XCVR-DWDM-MIB
- ARISTA-XGS-MIB
- IEEE8021-PFC-MIB
- IEEE8023-LAG-MIB
- MPLS-LDP-STD-MIB
- NOTIFICATION-LOG-MIB
- OSPF-TRAP-MIB
- OSPFV3-MIB
- PTPBASE-MIB

SNMP Traps

- RFC 2863 IF-MIB
 - linkUp, linkDown
- LLDP-MIB
 - lldpRemTablesChange
- RFC 3418 SNMPv2-MIB
 - coldStart
- NET-SNMP-AGENT-MIB
 - nsNotifyRestart
- ENTITY-MIB
 - entConfigChange
- ENTITY-STATE-MIB
 - entStateOperEnabled, entStateOperDisabled
- OSPF-MIB
 - ospfNbrStateChange, ospfIfConfigError, ospfIfAuthFailure, ospfIfStateChange
- BGP4-MIB
 - bgpEstablished, bgpBackwardTransition
- ARISTA-REDUNDANCY-MIB
 - aristaRedundancySwitchOverNotif only for: 7500R, 7500E, 7300X, 7050X2, 7060X, 7260X, 7320X, 7060X2, 7160, 7020R
- ARISTA-CONFIG-MAN-MIB
 - aristaConfigManEvent
- SNMPv2-MIB
 - authenticationFailure
- VRRPv2-MIB
 - vrrpTrapNewMaster
- MPLS-LDP-STD-MIB
 - mplsLdpSessionUp, mplsLdpSessionDown

- MSDP-MIB
 - msdpEstablished, msdpBackwardTransition
- PIM-MIB
 - pimNeighborLoss

Supported Hardware

Fixed System

- | | | |
|-------------------------|--------------------------|------------------------|
| • DCS-7150S-24-CL-F | • DCS-7280TR-48C6-F | • DCS-7050TX-64-SSD-F |
| • DCS-7150S-24-CL-R | • DCS-7280TR-48C6-M-F | • DCS-7050TX-64-SSD-R |
| • DCS-7150S-24-CL-SSD-F | • DCS-7280TR-48C6-M-R | • DCS-7050TX-72-SSD-F |
| • DCS-7150S-24-F | • DCS-7280QR-C72-F | • DCS-7050TX-72-SSD-R |
| • DCS-7150S-24-R | • DCS-7280QR-C72-M-F | • DCS-7050TX-96-SSD-F |
| • DCS-7150S-24-CL-SSD-R | • DCS-7280QR-C72-M-R | • DCS-7050TX-96-SSD-R |
| • DCS-7150S-52-CL-F | • DCS-7280QR-C72-R | • DCS-7010T-48-F |
| • DCS-7150S-52-CL-R | • DCS-7280SR2-48YC6-F | • DCS-7010T-48-R |
| • DCS-7150S-52-CL-SSD-F | • DCS-7280SR2-48YC6-M-F | • DCS-7050SX-72-F |
| • DCS-7150S-52-CL-SSD-R | • DCS-7280SR2-48YC6-M-R | • DCS-7050SX-72-R |
| • DCS-7150S-64-CL-F | • DCS-7280SR2-48YC6-R | • DCS-7050SX-72-SSD-F |
| • DCS-7150S-64-CL-R | • DCS-7020TR-48-F | • DCS-7050SX-72-SSD-R |
| • DCS-7150S-64-CL-SSD-F | • DCS-7020TR-48-R | • DCS-7050SX-96-F |
| • DCS-7150S-64-CL-SSD-R | • DCS-7280QRA-C36S-F | • DCS-7050SX-96-R |
| • DCS-7170-64C-F | • DCS-7280QRA-C36S-R | • DCS-7050SX-96-SSD-F |
| • DCS-7170-64C-R | • DCS-7280SR2A-48YC6-F | • DCS-7050SX-96-SSD-R |
| • DCS-7170-32C-F | • DCS-7280SR2A-48YC6-M-F | • DCS-7050TX-128-SSD-F |
| • DCS-7170-32C-M-F | • DCS-7280SR2A-48YC6-M-R | • DCS-7050TX-128-SSD-R |
| • DCS-7170-32C-M-R | • DCS-7280SR2A-48YC6-R | • DCS-7050TX-72-F |
| • DCS-7170-32C-R | • DCS-7280SRA-48C6-F | • DCS-7050TX-72-R |
| • DCS-7170-64C-M-F | • DCS-7280SRA-48C6-M-F | • DCS-7050TX-96-F |
| • DCS-7170-64C-M-R | • DCS-7280SRA-48C6-M-R | • DCS-7050TX-96-R |
| • DCS-7170-32CD-F | • DCS-7280SRA-48C6-R | • DCS-7010T-48-DC-F |
| • DCS-7170-32CD-R | • DCS-7280TRA-48C6-F | • DCS-7010T-48-DC-R |
| • PWR-1100AC-F | • DCS-7280TRA-48C6-M-F | • DCS-7260QX-64-F |
| • PWR-1100AC-R | • DCS-7280TRA-48C6-M-R | • DCS-7260QX-64-R |
| • PWR-750AC-F | • DCS-7280TRA-48C6-R | • DCS-7260QX-64-SSD-F |
| • PWR-750AC-R | • DCS-7020TRA-48-F | • DCS-7260QX-64-SSD-R |
| • PWR-500-DC-F | • DCS-7020TRA-48-R | • DCS-7050SX-72Q-F |
| • PWR-500-DC-R | • DCS-7280CR2A-60-F | • DCS-7050SX-72Q-R |
| • PWR-500AC-F | • DCS-7280CR2K-60-F | • DCS-7050TX-72Q-F |
| • PWR-500AC-R | • DCS-7280SRAM-48C6-F | • DCS-7050TX-72Q-R |
| • PWR-745AC-F | • DCS-7280SRAM-48C6-R | • DCS-7050QX2-32S-F |
| • PWR-745AC-R | • DCS-7280CR2-60-F | • DCS-7050QX2-32S-R |
| • FAN-7010 | • DCS-7280CR2A-30-F | • DCS-7050SX2-128-F |
| • PWR-1900-DC-F | • DCS-7280CR2K-30-F | • DCS-7050SX2-128-R |
| • PWR-1900-DC-R | • DCS-7280QRA-C36S-M-F | • DCS-7050TX2-128-F |
| • PWR-1900AC-F | • DCS-7280QRA-C36S-M-R | • DCS-7050TX2-128-R |

- PWR-1900AC-R
- PWR-747AC-F
- PWR-747AC-R
- FAN-7002H-R
- FAN-7000H-R
- PWR-1600AC-F
- FAN-7001D-F
- FAN-7001C-F
- PWR-400AC-BLUE
- FAN-7011M-F
- FAN-7011M-R
- PWR-1021-AC-RED
- PWR-511-AC-BLUE
- PWR-511-AC-RED
- PWR-621-AC-RED
- PWR-400AC-RED
- PWR-511-DC-BLUE
- PWR-511-DC-RED
- FAN-7000-F
- FAN-7000-R
- PWR-460AC-F
- PWR-460AC-R
- PWR-460DC-F
- PWR-460DC-R
- DCS-7280SE-64-F
- DCS-7280SE-64-R
- DCS-7280SE-72-F
- DCS-7280SE-72-R
- DCS-7280SE-68-F
- DCS-7280SE-68-R
- DCS-7280CR-48-F
- DCS-7280QR-C36-F
- DCS-7280QR-C36-M-F
- DCS-7280QR-C36-M-R
- DCS-7280QR-C36-R
- DCS-7280SR-48C6-F
- DCS-7280SR-48C6-M-F
- DCS-7280SR-48C6-M-R
- DCS-7280SR-48C6-R
- DCS-7280TR-48C6-R
- DCS-7280SR2K-48C6-M-F
- DCS-7280SR2K-48C6-M-R
- DCS-7020SR-24C2-F
- DCS-7020SR-24C2-R
- DCS-7280CR2M-30-F
- DCS-7280SRM-40CX2-F
- DCS-7280SRM-40CX2-R
- DCS-7020SR-32C2-F
- DCS-7020SR-32C2-R
- DCS-7020SRG-24C2-F
- DCS-7020SRG-24C2-R
- DCS-7050SX-128-F
- DCS-7050SX-128-R
- DCS-7050SX-128-SSD-F
- DCS-7050SX-128-SSD-R
- DCS-7250QX-64-F
- DCS-7250QX-64-R
- DCS-7250QX-64-SSD-F
- DCS-7250QX-64-SSD-R
- DCS-7050QX-32-F
- DCS-7050QX-32-R
- DCS-7050QX-32-SSD-F
- DCS-7050QX-32-SSD-R
- DCS-7050QX-32S-F
- DCS-7050QX-32S-R
- DCS-7050QX-32S-SSD-F
- DCS-7050QX-32S-SSD-R
- DCS-7050SX-64-F
- DCS-7050SX-64-R
- DCS-7050SX-64-SSD-F
- DCS-7050SX-64-SSD-R
- DCS-7050TX-128-F
- DCS-7050TX-128-R
- DCS-7050TX-48-F
- DCS-7050TX-48-R
- DCS-7050TX-48-SSD-F
- DCS-7050TX-48-SSD-R
- DCS-7050TX-64-F
- DCS-7050TX-64-R
- DCS-7050SX2-72Q-F
- DCS-7050SX2-72Q-R
- DCS-7060CX-32S-F
- DCS-7060CX-32S-R
- DCS-7060CX2-32S-F
- DCS-7060CX2-32S-R
- DCS-7260CX-64-F
- DCS-7260CX-64-R
- DCS-7260CX-64-SSD-F
- DCS-7260CX-64-SSD-R
- DCS-7060SX2-48YC6-F
- DCS-7060SX2-48YC6-R
- DCS-7260CX3-64-F
- DCS-7260CX3-64-R
- DCS-7050CX3-32S-F
- DCS-7050CX3-32S-R
- DCS-7050SX3-48YC12-F
- CCS-720XP-24ZY4-F
- CCS-720XP-48ZC2-F
- DCS-7050SX3-48YC8-F
- DCS-7050SX3-48YC8-R
- DCS-7150SC-24-CLD-F
- DCS-7150SC-24-CLD-R
- DCS-7150SC-64-CLD-F
- DCS-7150SC-64-CLD-R
- DCS-7260CX3-64E-F
- DCS-7260CX3-64E-R
- CCS-720XP-24Y6-F
- CCS-720XP-48Y6-F
- DCS-7160-32CQ-F
- DCS-7160-32CQ-R
- DCS-7160-48YC6-F
- DCS-7160-48YC6-R
- DCS-7160-48TC6-F
- DCS-7160-48TC6-R
- FAN-7002-F
- FAN-7002-R
- FAN-7002H-F
- FAN-7000H-F

Modular

- FAN-7002-F
- FAN-7002-R
- FAN-7002H-F
- FAN-7000H-F
- DCS-7508N
- 7500E-6CFPX-LC
- DCS-7500-SUP2
- DCS-7500-SUP2-D
- DCS-7504
- 7300-SUP
- 7300-SUP-D
- 7300X-32Q-LC

- PWR-3K-AC-F
- PWR-3K-AC-R
- PWR-2700-DC-F
- PWR-2700-DC-R
- PWR-3K-DC-BLUE
- PWR-3K-DC-RED
- PWR-3KT-AC-BLUE
- PWR-3KT-AC-RED
- PWR-2900AC
- 7500E-36Q-LC
- 7500E-48S-LC
- 7500E-72S-LC
- 7504E-FM
- 7508E-FM
- DCS-7500E-SUP
- DCS-7500E-SUP-D
- 7500E-12CM-LC
- 7500E-6C2-LC
- DCS-7504N
- 7500E-48T-LC
- 7500E-12CQ-LC
- 7500R-36CQ-LC
- 7500R-36Q-LC
- 7500R-48S2CQ-LC
- 7504R-FM
- 7508R-FM
- 7512R-FM
- DCS-7512N
- 7500RM-36CQ-LC
- 7500R-8CFPX-LC
- 7500R2-18CQ-LC
- 7500R2-36CQ-LC
- 7516R-FM
- DCS-7516-SUP2
- DCS-7516-SUP2-D
- DCS-7516N
- 7500R2A-36CQ-LC
- 7500R2AK-36CQ-LC
- 7500R2AK-48YCQ-LC
- 7500R2M-36CQ-LC
- 7500R2AM-36CQ-LC
- DCS-7508
- 7300X-64S-LC
- 7300X-64T-LC
- 7304X-FM
- 7308X-FM
- DCS-7304
- DCS-7308
- 7316X-FM
- DCS-7316
- 7320X-32C-LC
- 7324X-FM
- 7328X-FM
- 7300X3-32C-LC
- 7304X3-FM
- 7308X3-FM
- 7300X3-48YC4-LC
- 7368
- 7368-16C
- 7368-SUP
- 7368-SUP-D
- 7368X4-SC

Transceiver

- 1000BASE-BX10-D
- 1000BASE-BX10-U
- 40GBASE-AOC
- 10GBASE-LRL
- 10GBASE-ZR
- 40GBASE-PLRL4
- 40GBASE-SR4
- 40GBASE-XSR4
- 40GBASE-LR4
- 40GBASE-LRL4
- 40GBASE-PLR4
- CFP2-100GBASE-LR4
- 10GBASE-AOC
- 40GBASE-UNIV
- 100GBASE-CR4
- 100GBASE-CWDM4
- 100GBASE-LR4
- 100GBASE-LRL4
- 40GBASE-ER4
- 10GBASE-DWDM
- 10GBASE-DWDM-T
- 10GBASE-DWDM-ZR
- CFP2-100GBASE-ER4
- 100GBASE-PSM4
- 100GBASE-SR4
- 40GBASE-SRBD
- 100GBASE-AOC
- CFP2-100GBASE-XSR10
- 25GBASE-AOC
- 25GBASE-CR
- 25GBASE-LR
- 25GBASE-SR
- 100GBASE-SRBD
- 100GBASE-SWDM4
- 100GBASE-ERL4
- 100GE-DWDM2
- CFP2-100G-DWDM-DCO
- CFPX-100G-DWDM
- CFPX-200G-DWDM
- 1000BASE-LX
- 1000BASE-SX
- 1000BASE-T
- 10GBASE-CR
- 10GBASE-LR
- 10GBASE-SR
- 10GBASE-SRL
- 100GBASE-XSR4
- 100GBASE-DR
- 10GBASE-ERBD-D
- 10GBASE-ERBD-U
- 10GBASE-ERLBD-D
- 10GBASE-ERLBD-U
- 10GBASE-ER
- 40GBASE-CR4

Picking compatible versions for MLAG ISSU Upgrade/Downgrade

Upgrading/downgrading using the MLAG ISSU procedure, from release EOS-A.B.C to release EOS-D.E.F can be done in one or multiple phases.

1. If A.B.C is a compatible EOS version for D.E.F (refer to the A.B.X or D.E.X release table) then you can directly do MLAG ISSU using the D.E.F version by following the MLAG ISSU procedure. (A.B.C -> D.E.F).
Example: The customer wants to upgrade from 4.12.10 to 4.15.4F. In the Release 4.15.X MLAG ISSU Table, the 4.15.4F version has 4.12.10 as a MLAG ISSU compatible version, so customer can directly do an MLAG ISSU upgrade from 4.12.10 to 4.15.4F.
2. If A.B.C doesn't exist in the list of compatible versions for D.E.F (refer to the A.B.X or D.E.X release table), then look for the A.B.Y version in D.E.F's ISSU compatible EOS versions, do MLAG ISSU upgrade/downgrade from A.B.C to A.B.Y and then do MLAG ISSU upgrade/downgrade to D.E.F by following MLAG ISSU procedure (A.B.C -> A.B.Y -> D.E.F). Here, Y can be greater than or less than C.
Example: The customer wants to upgrade from 4.14.1F to 4.15.4F. In Release 4.15.X MLAG ISSU Table 4.15.4F version has 4.14.9F as MLAG ISSU compatible version and Release 4.14.X MLAG ISSU Table 4.14.9F has 4.14.1F as MLAG ISSU compatible version, so customer can do MLAG ISSU upgrade from 4.14.1F to 4.14.9F and then to 4.15.4F.
3. Look for an D.E.Z version that's MLAG ISSU compatible with both A.B.C and D.E.F. Do MLAG ISSU upgrade/downgrade from A.B.C to D.E.Z and then do MLAG ISSU upgrade/downgrade to D.E.F (A.B.C -> D.E.Z -> D.E.F). Here Z can be greater than or less than F.
Example: The customer wants to upgrade from 4.14.7F to 4.15.4F. In Release 4.15.X MLAG ISSU Table 4.15.0F version has 4.14.7F as MLAG ISSU compatible version and 4.15.4F has 4.15.0F as MLAG ISSU compatible version, so customer can do MLAG ISSU upgrade from 4.14.7F to 4.15.0F and then to 4.15.4F.
4. Look for an G.H.I version that's MLAG ISSU compatible with both A.B.C and D.E.F. Do an MLAG ISSU upgrade/downgrade from A.B.C to G.H.I and then do Mlag ISSU upgrade/downgrade to D.E.F (A.B.C -> G.H.I -> D.E.F).
5. In a highly unlikely scenario, if any of the above procedures are not acceptable, MLAG ISSU can be achieved by picking multiple intermediate versions.

Release 4.22.X MLAG ISSU Table

EOS Version	Mlag ISSU compatible EOS versions
4.22.1F	4.14.16M, 4.15.10M, 4.16.14M, 4.17.10M, 4.18.10M, 4.18.11M, 4.19.0F-4.19.3F, 4.19.4M-4.19.12M, 4.19.6.3M, 4.20.1F-4.20.6F, 4.20.7M-4.20.14M, 4.21.0F-4.21.6F, 4.21.7M, 4.22.0F
4.22.0F	4.14.16M, 4.15.10M, 4.16.14M, 4.17.10M, 4.18.10M, 4.19.0F-4.19.3F, 4.19.4M-4.19.12M, 4.19.6.3M, 4.20.1F-4.20.6F, 4.20.7M-4.20.12M, 4.21.0F-4.21.5F

Release 4.21.X MLAG ISSU Table

EOS Version	Mlag ISSU compatible EOS versions
4.21.0F	4.14.16M, 4.15.10M, 4.16.14M, 4.17.9M, 4.18.8M, 4.19.0F-4.19.3F, 4.19.4M-4.19.9M, 4.19.6.3M, 4.20.1F-4.20.6F, 4.20.7M
4.21.1F	4.14.16M, 4.15.10M, 4.16.14M, 4.17.10M, 4.18.9M, 4.19.0F-4.19.3F, 4.19.4M-4.19.10M, 4.19.6.3M, 4.20.1F-4.20.6F, 4.20.7M-4.20.9M, 4.21.0F
4.21.2F	4.14.16M, 4.15.10M, 4.16.14M, 4.17.10M, 4.18.10M, 4.19.0F-4.19.3F, 4.19.4M-4.19.10M, 4.19.6.3M, 4.20.1F-4.20.6F, 4.20.7M-4.20.10M, 4.21.0F-4.21.1F
4.21.3F	4.14.16M, 4.15.10M, 4.16.14M, 4.17.10M, 4.18.10M, 4.19.0F-4.19.3F, 4.19.4M-4.19.11M, 4.19.6.3M, 4.20.1F-4.20.6F, 4.20.7M-4.20.11M, 4.21.0F-4.21.2F
4.21.4F	4.14.16M, 4.15.10M, 4.16.14M, 4.17.10M, 4.18.10M, 4.19.0F-4.19.3F, 4.19.4M-4.19.11M, 4.19.6.3M, 4.20.1F-4.20.6F, 4.20.7M-4.20.11M, 4.21.0F-4.21.3F
4.21.5F	4.14.16M, 4.15.10M, 4.16.14M, 4.17.10M, 4.18.10M, 4.19.0F-4.19.3F, 4.19.4M-4.19.12M, 4.19.6.3M, 4.20.1F-4.20.6F, 4.20.7M-4.20.11M, 4.21.0F-4.21.4F

Release 4.20.X MLAG ISSU Table

EOS Version	Mlag ISSU compatible EOS versions
4.20.1F	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.16M, 4.15.10M, 4.15.3FX-7060X.2, 4.15.5FX-7500R, 4.16.6M-4.16.13M, 4.16.7-FXMLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.16.13FX-MLAGISSU-TWO-STEP, 4.16.9FX-7500R, 4.16.10FX-7060X, 4.17.0F-4.17.3F, 4.17.4M-4.17.7M, 4.18.0F, 4.18.1F-4.18.4F, 4.18.2-REV2-FX, 4.18.5M, 4.19.0F-4.19.2F

EOS Version	Mlag ISSU compatible EOS versions
4.20.2F	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.16M, 4.15.10M, 4.15.3FX-7060X.2, 4.15.5FX-7500R, 4.16.6M-4.16.13M, 4.16.7-FXMLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.16.13FX-MLAGISSU-TWO-STEP, 4.16.9FX-7500R, 4.16.10FX-7060X, 4.17.0F-4.17.3F, 4.17.4M-4.17.7M, 4.18.0F, 4.18.1F-4.18.4F, 4.18.2-REV2-FX, 4.18.5M, 4.19.0F-4.19.2F
4.20.3F	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.16M, 4.15.10M, 4.15.3FX-7060X.2, 4.15.5FX-7500R, 4.16.6M-4.16.13M, 4.16.7-FXMLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.16.13FX-MLAGISSU-TWO-STEP, 4.16.9FX-7500R, 4.16.10FX-7060X, 4.17.0F-4.17.3F, 4.17.4M-4.17.7M, 4.18.0F, 4.18.1F-4.18.4F, 4.18.2-REV2-FX, 4.18.5M, 4.19.0F-4.19.2F
4.20.4F	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.16M, 4.15.10M, 4.15.3FX-7060X.2, 4.15.5FX-7500R, 4.16.6M-4.16.13M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.16.13FX-MLAGISSU-TWO-STEP, 4.16.9FX-7500R, 4.16.10FX-7060X, 4.17.0F-4.17.3F, 4.17.4M-4.17.9M, 4.18.0F, 4.18.1F-4.18.4F, 4.18.2-REV2-FX, 4.18.5M-4.18.6M, 4.19.0F-4.19.3F, 4.19.4M-4.19.5M, 4.20.1F-4.20.3F
4.20.5F	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.16M, 4.15.10M, 4.15.3FX-7060X.2, 4.15.5FX-7500R, 4.16.6M-4.16.13M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.16.13FX-MLAGISSU-TWO-STEP, 4.16.9FX-7500R, 4.16.10FX-7060X, 4.17.0F-4.17.3F, 4.17.4M-4.17.9M, 4.18.0F, 4.18.1F-4.18.4F, 4.18.2-REV2-FX, 4.18.5M, 4.19.0F-4.19.4M, 4.20.1F-4.20.4F
4.20.5.1F	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.16M, 4.15.10M, 4.15.3FX-7060X.2, 4.15.5FX-7500R, 4.16.6M-4.16.13M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.16.13FX-MLAGISSU-TWO-STEP, 4.16.9FX-7500R, 4.16.10FX-7060X, 4.17.0F-4.17.3F, 4.17.4M-4.17.9M, 4.18.0F, 4.18.1F-4.18.4F, 4.18.2-REV2-FX, 4.18.5M, 4.19.0F-4.19.4M, 4.20.1F-4.20.5F
4.20.6F	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.16M, 4.15.10M, 4.15.3FX-7060X.2, 4.15.5FX-7500R, 4.16.6M-4.16.13M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.16.13FX-MLAGISSU-TWO-STEP, 4.16.9FX-7500R, 4.16.10FX-7060X, 4.17.0F-4.17.3F, 4.17.4M-4.17.9M, 4.18.0F, 4.18.1F-4.18.4F, 4.18.2-REV2-FX, 4.18.5M-4.18.8M, 4.19.0F-4.19.7M, 4.20.1F-4.20.5F
4.20.7M	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.16M, 4.15.10M, 4.15.3FX-7060X.2, 4.15.5FX-7500R, 4.16.6M-4.16.14M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.16.13FX-MLAGISSU-TWO-STEP, 4.16.9FX-7500R, 4.16.10FX-7060X, 4.17.0F-4.17.3F, 4.17.4M-4.17.9M, 4.18.0F, 4.18.1F-4.18.4F, 4.18.2-REV2-FX, 4.18.5M-4.18.8M, 4.19.0F-4.19.8M, 4.19.6.3M, 4.20.1F-4.20.6F
4.20.8M	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.16M, 4.15.10M, 4.15.3FX-7060X.2, 4.15.5FX-7500R, 4.16.6M-4.16.14M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.16.13FX-MLAGISSU-TWO-STEP, 4.16.9FX-7500R, 4.16.10FX-7060X, 4.17.0F-4.17.3F, 4.17.4M-4.17.9M, 4.18.0F, 4.18.1F-4.18.4F, 4.18.2-REV2-FX, 4.18.5M-4.18.8M, 4.19.0F-4.19.8M, 4.19.6.3M, 4.20.1F-4.20.7M

EOS Version	Mlag ISSU compatible EOS versions
4.20.9M	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.16M, 4.15.10M, 4.15.3FX-7060X.2, 4.15.5FX-7500R, 4.16.6M-4.16.14M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.16.13FX-MLAGISSU-TWO-STEP, 4.16.9FX-7500R, 4.16.10FX-7060X, 4.17.0F-4.17.3F, 4.17.4M-4.17.9M, 4.18.0F, 4.18.1F-4.18.4F, 4.18.2-REV2-FX, 4.18.5M-4.18.8M, 4.19.0F-4.19.5M, 4.19.6.3M, 4.19.7M-4.19.9M, 4.20.1F-4.20.8M
4.20.10M	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.16M, 4.15.10M, 4.15.3FX-7060X.2, 4.15.5FX-7500R, 4.16.6M-4.16.14M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.16.13FX-MLAGISSU-TWO-STEP, 4.16.9FX-7500R, 4.16.10FX-7060X, 4.17.0F-4.17.3F, 4.17.4M-4.17.10M, 4.18.0F, 4.18.1F-4.18.4F, 4.18.2-REV2-FX, 4.18.5M-4.18.9M, 4.19.0F-4.19.5M, 4.19.6.3M, 4.19.7M-4.19.10M, 4.20.1F-4.20.9M
4.20.11M	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.16M, 4.15.10M, 4.15.3FX-7060X.2, 4.15.5FX-7500R, 4.16.6M-4.16.14M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.16.13FX-MLAGISSU-TWO-STEP, 4.16.9FX-7500R, 4.16.10FX-7060X, 4.17.0F-4.17.3F, 4.17.4M-4.17.10M, 4.18.0F, 4.18.1F-4.18.4F, 4.18.2-REV2-FX, 4.18.5M-4.18.10M, 4.19.0F-4.19.5M, 4.19.6.3M, 4.19.7M-4.19.11M, 4.20.1F-4.20.10M
4.20.12M	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.16M, 4.15.10M, 4.15.3FX-7060X.2, 4.15.5FX-7500R, 4.16.6M-4.16.14M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.16.13FX-MLAGISSU-TWO-STEP, 4.16.9FX-7500R, 4.16.10FX-7060X, 4.17.0F-4.17.3F, 4.17.4M-4.17.10M, 4.18.0F, 4.18.1F-4.18.4F, 4.18.2-REV2-FX, 4.18.5M-4.18.10M, 4.19.0F-4.19.5M, 4.19.6.3M, 4.19.7M-4.19.11M, 4.20.1F-4.20.11M

Release 4.19.X MLAG ISSU Table

EOS Version	Mlag ISSU compatible EOS versions
4.19.0F	4.16.6M-4.16.12M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.17.0F-4.17.3F, 4.17.4M-4.17.7M, 4.18.0F, 4.18.1.1F, 4.18.2F, 4.18.2-REV2-FX.1, 4.18.3.1F
4.19.1F	4.16.6M-4.16.12M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.17.0F-4.17.3F, 4.17.4M-4.17.7M, 4.18.0F-4.18.4F
4.19.2F	4.16.6M-4.16.12M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.17.0F-4.17.3F, 4.17.4M-4.17.7M, 4.18.0F, 4.18.1.1F, 4.18.2F, 4.18.2-REV2-FX.1, 4.18.3.1F, 4.19.0F-1F
4.19.3F	4.16.6M-4.16.12M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.17.0F-4.17.3F, 4.17.4M-4.17.7M, 4.18.0F, 4.18.1.1F, 4.18.2F, 4.18.2-REV2-FX.1, 4.18.3.1F, 4.19.0F-2F, 4.19.2.1F

EOS Version	Mlag ISSU compatible EOS versions
4.19.4F	4.16.6M-4.16.12M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSUTWO-STEP, 4.17.0F-4.17.3F, 4.17.4M-4.17.7M, 4.18.0F, 4.18.1.1F, 4.18.2F, 4.18.2-REV2-FX.1, 4.18.3.1F, 4.19.0F-2F, 4.19.2.1F
4.19.5M	4.16.6M-4.16.12M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSUTWO-STEP, 4.17.0F-4.17.3F, 4.17.4M-4.17.7M, 4.18.0F, 4.18.1.1F, 4.18.2F, 4.18.2-REV2-FX.1, 4.18.3.1F, 4.19.0F-2F, 4.19.2.1F

Release 4.18.X MLAG ISSU Table

EOS Version	Mlag ISSU compatible EOS versions
4.18.0F	4.16.6M-4.16.9M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.17.0F-4.17.3F
4.18.1F	4.16.6M-4.16.10M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.17.0F-4.17.3F, 4.17.4M, 4.18.0F
4.18.1.1F	4.16.6M-4.16.10M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.17.0F-4.17.3F, 4.17.4M, 4.18.0F, 4.18.1F
4.18.2F	4.16.6M-4.16.10M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.17.0F-4.17.3F, 4.17.4M, 4.18.0F, 4.18.1F, 4.18.1.1F
4.18.3F	4.16.6M-4.16.10M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.17.0F-4.17.3F, 4.17.4M, 4.18.0F, 4.18.1F, 4.18.1.1F 4.18.2F

Release 4.17.X MLAG ISSU Table

EOS Version	Mlag ISSU compatible EOS versions
4.17.0F	4.16.6M
4.17.1F	4.16.6M-4.16.7M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.17.0F
4.17.2F	4.16.6M-4.16.8M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.17.0F-4.17.1F
4.17.3F	4.16.6M-4.16.9M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.17.0F-4.17.2F
4.17.4M	4.16.6M-4.16.9M, 4.16.7FX-MLAGISSU-TWO-STEP, 4.16.8FX-MLAGISSU-TWO-STEP, 4.17.0F-4.17.3F

Release 4.16.X MLAG ISSU Table

EOS Version	Mlag ISSU compatible EOS versions
4.16.6M	4.16.7FX-MLAGISSU-TWO-STEP
4.16.7M	4.16.6M, 4.16.7FX-MLAGISSU-TWO-STEP
4.16.8M	4.16.6M-4.16.7M, 4.16.7FX-MLAGISSU-TWO-STEP - 4.16.8FX-MLAGISSU-TWO-STEP
4.16.9M	4.16.6M-4.16.8M, 4.16.7FX-MLAGISSU-TWO-STEP - 4.16.8FX-MLAGISSU-TWO-STEP
4.16.10M	4.16.6M-4.16.9M, 4.16.7FX-MLAGISSU-TWO-STEP - 4.16.8FX-MLAGISSU-TWO-STEP
4.16.7FX-MLAGISSU-TWO-STEP	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.14M, 4.15.0F-4.15.4F, 4.15.5M-4.15.7M, 4.16.6M, 4.16.7M, 4.17.0F
4.16.8FX-MLAGISSU-TWO-STEP	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.15M, 4.15.0F-4.15.4F, 4.15.5M-4.15.8M, 4.16.6M-4.16.8M, 4.17.0F-4.17.1F

Release 4.15.X MLAG ISSU Table

EOS Version	Mlag ISSU compatible EOS versions
4.15.0F	4.9.11, 4.10.8.1, 4.11.11, 4.12.10, 4.13.12M, 4.14.7M
4.15.1F	4.9.11, 4.10.8.1, 4.11.11, 4.12.10, 4.13.12M, 4.14.7M, 4.15.0F
4.15.2F	4.9.11, 4.10.8.1, 4.11.11, 4.12.10, 4.13.12M, 4.14.9M, 4.15.0F-4.15.1F
4.15.3F	4.9.11, 4.10.8.1, 4.11.11, 4.12.10, 4.13.12M, 4.14.9M, 4.15.0F-4.15.2F
4.15.4F	4.9.11, 4.10.8.1, 4.11.11, 4.12.10, 4.13.12M, 4.14.9M, 4.15.0F-4.15.3F
4.15.5M	4.9.11, 4.10.8.1, 4.11.11, 4.12.10, 4.13.12M, 4.14.10M, 4.15.0F-4.15.4F
4.15.6M	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.15M, 4.14.12M, 4.15.0F-4.15.4F, 4.15.5M
4.15.7M	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.13M, 4.15.0F-4.15.4F, 4.15.5M-4.15.6M
4.15.8M	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.13M, 4.15.0F-4.15.4F, 4.15.5M-4.15.7M
4.15.9M	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.15M, 4.15.0F-4.15.4F, 4.15.5M-4.15.8M
4.15.10M	4.9.11, 4.10.8.1, 4.11.12, 4.12.11, 4.13.16M, 4.14.16M, 4.15.0F-4.15.4F, 4.15.5M-4.15.9M

Enhancements in 4.22.1F

Accelerated System Update

- The SCD FPGA will be hitlessly reset during 'reload hitless'. This allows for hitless FPGA upgrades and hitless repair of SCD SEUs. (370094)
SKUs Affected: DCS-7050QX-32S-F, DCS-7050QX-32S-R, DCS-7050QX-32S-SSD-F, DCS-7050QX-32S-SSD-R, DCS-7050SX-128-F, DCS-7050SX-128-R, DCS-7050SX-128-SSD-F, DCS-7050SX-128-SSD-R, DCS-7050SX-64-F, DCS-7050SX-64-R, DCS-7050SX-64-SSD-F, DCS-7050SX-64-SSD-R, DCS-7050SX-72Q-F, DCS-7050SX-72Q-R, DCS-7050TX-128-F, DCS-7050TX-128-R, DCS-7050TX-128-SSD-F, DCS-7050TX-128-SSD-R, DCS-7050TX-48-F, DCS-7050TX-48-R, DCS-7050TX-48-SSD-F, DCS-7050TX-48-SSD-R, DCS-7050TX-64-F, DCS-7050TX-64-R, DCS-7050TX-64-SSD-F, DCS-7050TX-64-SSD-R, DCS-7050TX-72Q-F, DCS-7050TX-72Q-R, DCS-7060CX-32S-F, DCS-7060CX-32S-R, DCS-7060SX2-48YC6-F, DCS-7060SX2-48YC6-R, DCS-7260CX3-64-F, DCS-7260CX3-64-R, DCS-7260CX3-64E-F and DCS-7260CX3-64E-R

CVX

- Added support for secure Attrlog connections between CVX and Arista switches. (161346)
- Support to allow disconnected CVX clients to reconnect to CVX without affecting the control or data plane. (250757)
- Added support for Fortinet firewalls running in Layer-3 mode with the MacroSegmentation Service (MSS). (396667)

General

- SNMP support for IP-MIB::ipNetToPhysicalTable (6042)
- Support VLAN-aware PTP using single BMCA. (45256)
- Support SSH certificates for administrative login and switch identification (255428)
- Identityref values in OpenConfig models are not qualified with their XML namespaces in NETCONF output nor with module prefixes in gNMI output. (282720)
- System logs are saved to flash on using the reload CLI command. (323324)
- Support for gNOI Ping (360849)
- Support for gNOI Traceroute (360850)

- Support for EOS native paths via OpenConfig gNMI connection (388679)

Layer 2

- Support for ipv6 LLDP management-address via the new "lldp management-interface ipv6 <interface>" cli command. (12672)
- Problem: local src-IP / valid multicast mac + unicast dst-ip result in traffic flooded to all VLAN members. This is normal for L2 but some customers want this traffic dropped. A new CLI command was added, "mac multicast destination-check ipv4 unicast action { forward | drop }" to change this behavior for those customers. Default is still to flood. (216863)

Layer 3

- Router-BGP configuration mode now supports the "default-metric" parameter in multi-agent mode (141710)
- IS-IS SR LFIB routes corresponding to node segments will be protected by backup paths computed using TI-LFA. Switchover to backup path will be triggered on link down or a BFD neighbour down event to provide fast convergence in the network in the range of sub-50 ms. (157425)
- Layer 3 subinterfaces are not accepted in match interface clause in a route map (173989)
- When control-word preference is changed from disabled to enabled, the customer should run "clear mpls ldp neighbor <ip>" in order to renegotiate the control-word capability correctly. (175106)
- When using EVPN with IPv6 overlay, the IPv6 overlay host routes originated from remote VTEPs/PEs will not be imported into non-default IPV6 Routing Table and FIB. (259580)
- Support for configuring IP Tunnels pointing to a next hop group forwarding adjacency by using the 'ip tunnel <tunnel_endpoint> nexthop-group <nhg-name>' configuration. (267631)
- Support for LSP Ping and LSP traceroute on a SR-TE Policy with a given endpoint and color. (269471)
- Support for BFD C-bit in BGP BFD sessions. (291253)
- Support for renaming and copying route maps and prefix lists (345114)
- Support for RSVP FRR node protection on a Label Switching Router (348917)
- Adds support for disabling IS-IS authentication on the receive side. This feature will disable IS-IS PDU authentication check only on the receive

side and if authentication is enabled the outgoing PDUs are still send out with authentication TLV (360983)

- Add cross-VRF support for DHCPv6 Relay. (361674)
- Support for IPv4 DHCP Server. (362798)
- Add v4/v6 support for DSCP configuration for NTP, DNS, Syslog, Traceroute, Ospf, Ospf3 traffic. (381072)

Multi-agent

- Support for OSPF "default-information originate always" (218090)
- Bmp now announces routes for non-default VRFs (251956)
- Support for IPv4 unicast NLRI with IPv6 next hops in BGP (260834)
- RIB Route Control - FIB Policy feature introduces a mechanism for selecting which routes in the routing table (RIB) get programmed into the forwarding table (FIB). (267173)
- Support for leaking of connected routes using BGP VPN mechanism (287949)
- Support for preventing iBGP routes from being redistributed into IGPs. (300413)
- Support for BGP Segment Routing Traffic Engineering Policy address family (BGP Address Family Identifier = 1 or 2 and Subsequent Address Family Identifier = 73) receive side processing in multiagent model. Implements a subset of draft-ietf-idr-segment-routing-te-policy (325602)
- Smart System Upgrade (SSU) support for L2 EVPN with VXLAN transport, specifically EVPN type 2 routes with MAC address (i.e., without MAC-IP binding) and type 3 (IMET) routes only. (343472)
- Support for multiple OSPFv2 instances. (344439)
- Support for IPv6 multicast address-family in BGP (351667)
- Support for specifying RIBs for next hop resolution of routes in VPN-IPV4 and VPN-IPV6 address families (364182)
- Support to export VRF routes into VPN table without allocating local labels. (364896)
- "show ip route" incorrectly shows routes leaked using BGP VPN mechanism (exporting the routes into VPN table and then locally importing the routes to a different VRF) to have the same protocol in target VRF as in source VRF instead of showing them as BGP routes. (372165)

MPLS

- Multicast Label Distribution Protocol (MLDP) support for LSR role in EOS (262648)
- Support for resolving LDP pseudowires over user-defined tunnel RIBs (354546)

Multicast

- In multi-agent mode, MSDP does RPF resolution for MSDP peers established over BGP peering. MSDP does not do RPF resolution for MSDP peers that are established via ECMP with BGP. In the ECMP case, the work-around is to configure default MSDP peers via CLI configuration. (244718)
- PIM and IGMP can work using "ip address virtual" on an interface. A new interface configuration has been introduced to allow PIM to borrow the IP address from another interface (e.g. the router IP from a loopback interface). This provides PIM the unique IP address that is necessary to form neighborhood between routers. (293395)

DCS-7020, DCS-7280 and DCS-7500 Series

- Support prediction of forwarding destinations for certain packet types (156735)
- Support configuration of ECMP hashing using load balance profiles (169841)
- Support filtering of MPLS packets using ingress access control lists (188336)
- Support for a configuration option to increase the size of full-multicast buffers from 192MB to 448MB (223023)
Series Affected: DCS-7280R, DCS-7280R2, DCS-7500R and DCS-7500R2 Series
- Adding support for matchCos and matchVlanCos to Qos policy-map on Sand platforms. (250603)
- Support for Per Port Cos-To-Tc Mapping & Marking added for Front Panel and Port-Channel interfaces (250607)
- Support for MAC ACLs on L2 Subinterfaces (266212)
Series Affected: DCS-7280R, DCS-7280R2, DCS-7500R and DCS-7500R2 Series
- Support for configuring multiple destinations in a single monitor session (270249)
Series Affected: DCS-7280CR2, DCS-7280E, DCS-7280R, DCS-7280R2, DCS-7280SE, DCS-7280SR, DCS-7280SR2, DCS-7280TR, DCS-7500E, DCS-7500R and DCS-7500R2 Series

- Support for SR-TE policy aggregate counters. (309337)
- Support for mixed-pipe tunnel termination model. This mode allows MPLS-terminated IPv4 packets to keep the original IP DSCP, while the TTL is derived from the MPLS header. (340758)
- Add support for MPLS packets terminated with a pop operation on egress IPv4 access-lists. (340795)

DCS-7280R and DCS-7500R Series

- Add support for ECN counters per interface for Jericho. (241985)
- Put all MLD packets in the TTL1 CoPP queue. This is the best we can do for now due to the hardware limitation. (249269)
- MPLS Ping/Traceroute is not supported for nexthop-groups with 'fec hierarchical' configuration. (261486)
- LANZ can now report tx-latency. (266365)
- Support for terminated MPLS packets with a VRF-label mapping on egress IPv4 access-lists (340787)

DCS-7050X[2], DCS-7060X[2], DCS-7250X and DCS-7300 Series

- Support for LANZ mirroring to a GRE tunnel destination (168986)
Series Affected: DCS-7050X, DCS-7060X, DCS-7250X, DCS-7260X and DCS-7300X Series
- Support for ingress and egress subinterface and VLAN counters. (181633)
Series Affected: DCS-7050X, DCS-7050X2, DCS-7050X3, DCS-7060X, DCS-7250X, DCS-7260X and DCS-7300 Series
- Added support for ingress and egress SVI counters. (201751)
Series Affected: DCS-7050X, DCS-7050X2, DCS-7050X3, DCS-7060X, DCS-7060X2, DCS-7250X, DCS-7260X, DCS-7260X3 and DCS-7300 Series
- Support for MAC based authentication of passive non-Dot1x device
With 'dot1x unauthorized access vlan membership egress' configured, 'switchport vlan access <v>' doesn't take effect until 'no dot1x unauthorized access vlan membership' is configured. (348126)
Series Affected: DCS-7010, DCS-7050, DCS-7050X, DCS-7060X, DCS-7060X2, DCS-7060X3, DCS-7250X, DCS-7260X and DCS-7260X3 Series
- Subinterface egress counters support. (364719)
Series Affected: DCS-7050X, DCS-7050X2, DCS-7050X3, DCS-7060X, DCS-7060X2, DCS-7250X, DCS-7260X, DCS-7260X3 and DCS-7300 Series

- Support for high speed interface counters. (391180)
Series Affected: DCS-7060X2 and DCS-7060X3 Series

CCS-720XP Series

- When the switch reboots, power to the PoE ports will be maintained by default. The behavior can be controlled with the 'reboot action' command in the 'poe' configuration mode. (359049)
Series Affected: CCS-720XP Series
- LANZ feature support (367844)

DCS-7010T Series

- Added support for LANZ Mirroring. (361121)

DCS-7060X and DCS-7300 Series

- VNI encap and decap counters support. (342059)
Series Affected: DCS-7050X3, DCS-7060X, DCS-7060X2, DCS-7260X, DCS-7260X3 and DCS-7300 Series
- Support for VNI, VTEP, SVI, and SubInterface flexible counters. (342064)
Series Affected: DCS-7060X2 Series

DCS-7260X3 Series

- Support for per-SVI counters. (259703)
- Support for VNI, VTEP, SVI, and SubInterface flexible counters. (342065)

7368 Series

- LANZ feature support (272895)

DCS-7050X2 and DCS-7300 Series

- Added support for LANZ Mirroring. (237661)

DCS-7050CX3, DCS-7050SX3 and DCS-7300 Series

- EVPN All-Active support. (270839)
- Added support for SVI ingress and egress counters. (272129)
- SSU support (293356)
Series Affected: DCS-7050X3 Series
- Support for VNI, VTEP, SVI, and SubInterface flexible counters. (342061)
SKUs Affected: DCS-7050SX3-48YC8-F

- Added support for DirectFlow. (342307)
- Added support for bridging VxLAN traffic from one remote VTEP to other remote VTEPs. (352329)
- Support for VNI, VTEP, Subinterface, and VLAN counters. (391633)
SKUs Affected: DCS-7050SX3-48YC12-F

Transceiver Series

- `show interface transceiver eeprom` CLI command for QSFP and SFP interfaces supporting SFF specification. (203702)
- Support for `'show interfaces transceiver eeprom'` command to parse the EEPROM of an interface using the currently supported SFF spec for QSFP and SFP transceivers. (359033)

DCS-7160 Series

- Ingress MAC ACL support on TCAM Profile for XP platform (161727)
- Added support for VxLAN VTEP and VNI counters (255083)

Resolved Caveats in 4.22.1F

Accelerated System Update

- SandFap agent may crash during SSU causing SSU to be aborted. The system will undergo cold reboot. There are no workarounds for this issue (374829)
SKUs Affected: DCS-7280SR-48C6-F, DCS-7280SR-48C6-M-F, DCS-7280SR-48C6-M-R and DCS-7280SR-48C6-R
- Some services may not run properly during SSU reload causing LACP links to flap and ARPs to timeout. There are no workarounds for this issue. (381014)

CVX

- In Macro-Segmentation Service (MSS) deployment, DirectFlow rules for the intercepted hosts seen behind an MLAG VTEP might not be installed on a MLAG peer after it is reloaded. This situation will be resolved as soon as the reloaded peer starts receiving traffic from that set of intercepted hosts.

An alternative workaround is to remove and readd the affected IP addresses from the firewall policy (283229)

- The Macro-Segmentation Service (MSS) fails to install policy rules with pre-defined applications correctly. To workaround this issue, manually define the application in the firewall policy rule. (362682)

- In Macro-Segmentation Layer 3 deployment, restarting MssClient agent might not redirect routed traffic destined to an intercepted host to an external firewall.

As a workaround, restarting StrataL3 agent should resolve this issue. (363494)

- The Macro-Segmentation Service (MSS) may not handle a custom session timeout in the L4 service definition. To workaround the issue, use a default session timeout. (367896)
- Restarting the MssPolicyMonitor (MssPM) agent can result in a 2-5 second disruption of traffic when the Macro-Segmentation Service is enabled. (369347)
- The Macro-Segmentation Service (MSS) may fail to re-establish communication with a firewall if the host route on CVX is modified.

To workaround this, toggle the device-set state via CLI (to 'shutdown', followed by 'active'). (372827)

- The Macro-Segmentation Service (MSS) can fail to remove policies on a failure to communicate with the firewall (when configured to bypass the firewall on failure).

The workaround is to restart the MssPM agent. (373012)

- If both the default and MLAG VXLAN source-interfaces VTEP IP addresses are configured, VXLAN BFD Tunnels for the default VTEP IP address may flap if all MAC addresses learned on non-MLAG ports are aged out. (375542)
- The Arista OpenStack ML2 driver fails to sync with CVX for set of VMs if there is a failure in creating a VM, causing CVX and OpenStack to get out of sync (376978)
- The Arista OpenStack agent incorrectly removes the provisioned network when an instance using the network is shut down in a deployment where hierarchical port binding is in use. (377721)
- In Macro-Segmentation Service with Layer 2 transparent firewall, original VLAN may not be dynamically programmed on the Far interface after secondary MLAG service TOR is reloaded.

To workaround this issue, the original VLAN can be allowed on the Far Interface using CLI. (387085)

- In a Macro-Segmentation Service (MSS), traffic might not be redirected to the layer 3 firewall when MssClient agent is restarted unexpectedly on a VTEP that does not have VLAN binding for every VNI managed by

VxlanController Service.

To workaround this problem, all VNIs managed by VxlanController Service need to be created on every TOR VTEP and then MssClient agents on affected VTEPs need to be restarted. (392962)

- Connecting the MSS feature to a firewall with a large routing table might cause a crash in the MssPolicyMonitor agent.

Workaround: Reduce the size of the firewall routing table by removing any unneeded static routing table entries (394381)

General

- If a file system is full, Launcher can crash when it tries to start a new agent due to a configuration change. (173902)
- The Back-panel temp sensor may misreport a temporary overheat condition and cause the system to shut down due to critical system temperature. (292150)
SKUs Affected: DCS-7170-32C-F, DCS-7170-32C-R, DCS-7170-32CD-F, DCS-7170-32CD-R, DCS-7170-64C-F, DCS-7170-64C-M-F, DCS-7170-64C-M-R, DCS-7170-64C-R, DCS-7260CX3-64-F, DCS-7260CX3-64-R, DCS-7260CX3-64E-F, DCS-7260CX3-64E-R, DCS-7280CR2A-30-F, DCS-7280CR2K-30-F and DCS-7280CR2M-30-F
- Under certain conditions where a firewall policy containing rules tagged for the Macro-Segmentation Service (MSS) are modified by moving the destination IP addresses to the source IP field in the rule, MSS may fail to redirect that traffic to the firewall.

To workaround the problem, please restart MSS. (346370)

- YANG default values for some leaf nodes are shown under subinterfaces. (356170)
- MSS uses DirectFlow flows to match and redirect/permit/drop traffic. For IP flows, where the ethertype is unspecified, it also matches on ARP traffic.

The workaround here is to add a high priority flow that matches ARP traffic and is forwarded normally. The configuration is:

```
(config-directflow)# flow treat-ARP-normally
(config-directflow-treat-ARP-normally)# match ethertype ARP
(config-directflow-treat-ARP-normally)# priority 65534
(config-directflow-treat-ARP-normally)# exit (365135)
```

- PTP agent will not send unicast PTP event messages using the G.8275.2 PTP profile if the PTP peer is in a remote network. (365913)

- DirectFlow may be unable to reprogram flows with a nexthop after a Strata restart. (366231)
- CVE-2019-9636: Python 2.7.x through 2.7.16 and 3.x through 3.7.2 is affected by: Improper Handling of Unicode Encoding (with an incorrect netloc) during NFKC normalization. The impact is: Information disclosure (credentials, cookies, etc. that are cached against a given hostname). The components are: urllib.parse.urlsplit, urllib.parse.urlparse. The attack vector is: A specially crafted URL could be incorrectly parsed to locate cookies or authentication data and send that information to a different host than when parsed correctly. (367678)
- When an interface with a many directly connected IPv6 routes configured becomes suddenly inactive, such as due to peer reset, BFD sessions on other interfaces may flap. (367872)
- When using PTP with the G.8275.2 PTP profile, enabling PTP using "ptp enable" on a Port-Channel is unsupported. (372185)
- When dnsmasq is enabled for external proxy using the "ip domain proxy" configuration, this configuration is not correctly re-applied after reloading the device. (376491)
- ConfigAgent might restart when multiple CLI or CAPI sessions are running commands at the same time (383984)
- If two EosSdk agents configure policy based routing, the merged config applied by one of the agents might not program the PBR actions of the policy configured by the other agent. (385896)
- LDP agent may restart when churning a large number of FECs. (387077)
- After BFD Authentication is configured on a LAG, the LAG members may not have the correct BFD Authentication configuration. Restart the BFD agent in order to correct the error condition. (388293)
- NETCONF session might be terminated by the server if the <hello> message from NETCONF client spans over more than one frame. (389321)
- Specially crafted TCP sessions with low MSS configured and SACK enabled could cause the kernel to crash. See security advisory 41 for details: <https://www.arista.com/en/support/advisories-notices/security-advisories/8066-security-advisory-41> (392663)
- Some TCP sessions with low MSS configured and SACK enabled could lead to an excessive resource usage inside the kernel. See security advisory 41 for details: <https://www.arista.com/en/support/advisories-notices/security-advisories/8066-security-advisory-41> (392669)

- TCP sessions with low MSS configured and could lead to an excessive resource usage inside the kernel. See security advisory 41 for details: <https://www.arista.com/en/support/advisories-notices/security-advisories/8066-security-advisory-41> (392674)
- Requests 2.20.0 fixed CVE-2018-18074 no longer sending HTTP authorization on https to http redirect. (393899)
- Updated python module urllib3 to 1.24.3 to address CVE-2019-11324 and properly handle cases where the esired set of CA certificates is different from the OS store of CA certificates. (398138)
- If the AAA server config is deleted before the AAA server replies to some earlier AAA request initiated by the Dot1x agent, the Dot1x agent may restart. (403193)
- Modifying PBR policies in config-sessions does not work. Configuration and status commands will reflect changes made, but the changes will not be reflected in hardware. This can be mitigated by removing the policy from applied interfaces and reapplying. (404036)

Layer 1

- MACsec proxy feature with a profile with SCI can drop packets in the encryption direction with FCS errors on MACsec proxy port (356322)
SKUs Affected: 7500R2M-36CQ-LC, DCS-7280CR2M-30-F, DCS-7280SRAM-48C6-F, DCS-7280SRAM-48C6-R, DCS-7280SRM-40CX2-F and DCS-7280SRM-40CX2-R
- Ports running at 100G speeds with 100GBASE-PSM4 transceivers may flap, have excessive FEC errors or remain down. (370605)
SKUs Affected: 100GBASE-PSM4

Layer 2

- If "port-channel min-links" is configured on both LACP partners for the port-channel between them, the port-channel might not link up. The workaround is to configure min-links on only one LACP partner. (347483)
- When Macro-Segmentation Service (MSS) for L3 Firewalls is enabled and the intercepted mac address aging time expires, offload flows may not function correctly. The workaround is to disable mac aging with the configuration "mac address-table aging-time 0" (365007)
Series Affected: DCS-7050X3 Series

Layer 3

- Shutting down all the nexthop interfaces belonging to a default prefix resilient ECMP will cause the L3 Agent to restart. (255064)

- OSPF ABR does not withdraw some translated NSSA LSAs in presence of overlapping NSSA prefixes (350804)
- When OSPF has default-information originate always configured and a static default route is redistributed to OSPF, LSA changes in the network can cause unexpected updates to the external LSA with the default route information. This may cause too many retransmissions and bring down the adjacency. The workarounds are to stop the route changes, or unconfigure default-information originate always. (354145)
- If DirectFlow is shutdown / no shutdown after the Macro-Segmentation Service (MSS) for L3 Firewalls is enabled, the hardware programming for redirection of flows may not get removed resulting in incorrect forwarding. There is no workaround for this issue. (363479)
 Series Affected: DCS-7050, DCS-7050T, DCS-7050TX, DCS-7050X, DCS-7050X2, DCS-7050X3, DCS-7060X, DCS-7060X2, DCS-7060X3, DCS-7250X, DCS-7260X, DCS-7260X3, DCS-7300 and DCS-7300X Series
- If one or more L3 routed interfaces that were initially assigned to a VRF are operationally DOWN, it may cause the KernelFib agent (process managing the SW routing table) to reprogram the kernel routes in that VRF for destinations that have a special forwarding adjacency (i.e. routes pointing to tunnels, nexthop-groups adjacency or when routing from one IP address-family to another (RFC5549)). This may result in a temporary blackhole of packets forwarded to these destinations in software.

As a work around for this issue, one can configure a VLAN and then create an SVI in that VRF. The SVI will need to have an ip address assigned and no autostate configured. (364393)

- Directflow match on "input interface Recirc-Channel" is not supported. On Macro-Segmentation Service (MSS) deployment with L3 firewalls, this may result in traffic looping on service VTEP for the traffic returning from Firewall. (369939)
 Series Affected: DCS-7050, DCS-7050T, DCS-7050TX, DCS-7050X, DCS-7060X, DCS-7060X2 and DCS-7060X3 Series
- As-external OSPFv3 routes may not be installed correctly, if there is more than one path to reach the ASBR router (375929)
- When the OSPF router id is changed and there is any adjacency established over an OSPF point to point interface, routes may not be installed." (385290)
- IAR Completion processing can be very slow when the number of Nexthoplists being tracked is very high and IAR is not possible for most of them (391876)
- OSPF leaks memory when the "show ip ospf interface" command is executed. (392591)

Multi-agent

- If OSPF is configured with max-metric wait-for-bgp and IS-IS is configured with set-overload-bit, then wait-for-bgp might advertise BGP prefixes before BGP convergence.

To ensure that IGP waits for BGP convergence before advertising prefixes, configure BGP graceful-restart or wait-for-convergence along with IGP wait-for-bgp configuration. (225972)

- With MPLS-VPN or 6PE, if the remote PE is doing per-prefix-label allocation, and the scale of VPN (or 6PE) routes is high (i.e 100K or more), BGP agent may unexpectedly restart when reachability to the remote PE flaps. (276566)
- Next hop groups cannot be used in a PBR match criterion. (294334)
- Ospf summary-address might not be advertised if all the contributors of summary-address are removed and added in quick succession.

To workaroud, un-configure and reconfigure the Ospf summary address. (346166)

- When leaking and unleaking routes from one VRF to another, the switch may end up redistributing (via BGP) leaked routes in the target VRF. This can be fixed by restarting the IpRib agent. (378628)
- The BGP may crash if any VLAN-Aware bundle MAC-VRF is configured under MPLS encapsulation with VLAN/ETID where ETID is set to any value > 4094. To avoid the crash, do not exceed 4094 for ETID configuration. (380138)
- BGP agent may restart unexpectedly when dynamic prefix-list is configured in a VRF which has BGP imported VPN routes in FIB (381120)
- Under rare circumstances, a hard reset of all BGP peers could lead to Bgp agent restart. (383256)
- Bgp agent may restart after establishing a session with a peer that does not negotiate capabilities. (385641)
- BGP may advertise prefixes before they're programmed in hardware in the presence of "update wait-install" configuration (389606)
- When installing a BGP route with labeled next hops (e.g., MPLS VPN, 6PE), the IpRib agent may restart repeatedly or blackhole traffic. The issue is more likely at larger next hop scale. (390006)
- In the unlikely event that the IGP costs for more than one path associated with a prefix change nearly at the same time and bestpath processing for

these paths happens in different batches, the bestpath results may be incorrect. (391157)

- When a BGP peer's outbound policy (or other outbound feature) configuration change results in the peer moving to a new RibOut, unnecessary withdrawals and advertisements may be issued towards the peer. The issue can only happen if the modified peer's outbound policy is unique, and it is the first peer in the new RibOut.

Additionally, when a newly established peer has a unique outbound policy and is the first peer to join a new RibOut, then an EOR may be sent prematurely to that peer. (397087)

Rib

- In scaled BGP deployments, BGP convergence is degraded (379127)
- An eventual Rib crash will occur over time due to an internal resource re-use. Amount of time can vary based on route churn in the system. (379398)
- Bgp peer receiving binding SID sub-TLV with length 2 could cause reset of session with malformed update as the reason or the update message could result in Treat As Withdrawal (385814)
- Policy cache size may grow unboundedly, leading to unexpected agent restart (388122)
- In IPv6 link local peering, routes received with a 16 byte nexthop containing an IPv6 link local address will be considered invalid. As a work around a policy can be configured on the sender to advertise the routes with a valid global address in the nexthop. (389822)
- The Rib agent may restart unexpectedly in deployments with high path scale, coupled with high path attribute diversity and route churn. (390499)
- Rib agent may restart unexpectedly if bestpath change triggers MED demotion of an ECMP group member in the middle of in-place adjacency replace process. (395736)
- On IpRib agent restart, IP prefixes learned through the EVPN control plane may point to incorrect next hops. (398384)
- In an environment where nexthop-group configuration is rapidly churning and new nexthop-groups are unconfigured/configured at a high rate, after a certain passage of time (ranging from a few weeks to months depending on the rate of configuration churn), unicast routes using the more recent nexthop-group configuration may point to an invalid "NexthopGroupUnknown" adjacency (as seen using 'show ip|ipv6 route') resulting in blackholing of traffic to these destinations (402797)

MLAG

- When one of the MLAG peers goes through a stateful switchover (SSO), the other MLAG peer might lose all the mac addresses synced via the peer-to-peer mount and this could result in flooding until the mac addresses are restored or relearned. (247396)
- On forwarding agent restart on MLAG system, STP might not process BPDUs received on the MLAG secondary's interfaces. This affects the port roles, states, counters and can disrupt traffic. Workaround is to flap interfaces on MLAG secondary. (382765)

Multicast

- On Multicast routers running PIM over SCTP, some multicast routes may be missing or may have missing outgoing interfaces after some churn in the network.
Use an MTU > 1550 on the interfaces on which PIM is enabled. (366980)
- On multicast routers running PIM over SCTP transport protocol, when there are too many packets to be read the process manager will restart Pimsm. (368777)
- With high scale of greater than 100K multicast routes, in an MLAG setup acting as LHR, with PORT enabled, few mroutes might go missing after IIF change. (370704)
- A S,G route, in a multicast vxlan environment using the underlay solution, can loop packets when there is a source and receiver on the same vlan. This can happen during a mlag reload of the DR or when changing DR using the DR priority configuration. (373268)
- When there are many IPv6 PIM S,G routes, some joins might get dropped when packing messages up to the IP MTU. In most cases, subsequent joins might make it. But with the right set of groups and sources, on the upstream router the OIF will be added and removed because the joins are dropped. (380281)
- In multi-agent mode, MSDP agent crashes if other MSDP peers are sending traffic. (388194)

DCS-7150 Series

- On the DCS-7150 switch family, when dynamic NAT is configured, a NAT rule may be programmed in hardware with the incorrect routing forwarding information.
A workaround is to reset the status of the NAT interface (i.e. the

interface where the NAT rule is configured). (368716)

Series Affected: DCS-7150 Series

- On DCS-7150 series, FocalPointV2 agent may crash if a SVI is created and deleted multiple times in a quick succession (387290)

DCS-7170 Series

- In an MLAG setup, if routing on peer-mac is enabled, then if a switch receives an L2 packet with destination mac address of the frame with peer-mac, then the packet will not get forwarded to the peer.

The workaround is to disable the feature by running the configuration command "no ip virtual-router mac-address mlag-peer" (352873)

Series Affected: DCS-7170 Series

- If lag configuration changes continuously such that a port is moved from being member of one lag to the the other lag, the lag from which the member port moved and the the lag to which the member port moved, both would have undefined behavior. (371119)

- After high routing churn, routed traffic may be misforwarded to stale routes. (385787)

Series Affected: DCS-7170 Series

- nat and baremetal profiles support at most 1024 'ip|ipv6 access-group <aclName> in' ACL bindings, and 1024 'ip|ipv6 access-group <aclName> out' ACL bindings. If a limit is exceeded, the forwarding agents continuously restart. ip and ipv6 access-groups in the same direction apply against the same limit. For example, 11 'ip access-group <aclName1> in' and 1014 'ipv6 access-group <aclName2> in' would count as 1025 bindings for the 'in' direction. 'in' and 'out' have separate limits.

To stop the continuous forwarding agent restarts, revert the configuration to avoid exceeding a limit. (388309)

Series Affected: DCS-7170 Series

- On the DCS-7170 series, repeated VLAN creation and deletion may cause the forwarding agent to restart. (388513)
- If only the MAC address of an IP host changes such that the change in MAC address is only in NIC-specific bytes, then hardware will not get updated causing the host to become unreachable.

The workaround is to clear the ARP entry of the host affected. (391799)

Series Affected: DCS-7170 Series

- For some values of egress shape rate programmed on interface, tx-queue & under copp policies, the corresponding hardware value is programmed as 0 due to overflow in conversion to mantissa & exponent, which results in

queue getting stuck, the workaround will be to set the shape rate to some other value & then the stuck buffers in the queue will be released & the queue will be operational again (393096)

Series Affected: DCS-7170 Series

- IPv6 underlay VxLAN traffic using received on port 65330 is not recongized as VxLAN and is forwarded without decapping. (396516)

Series Affected: DCS-7170 Series

DCS-7300 and DCS-7500 Series

- When a stateful switch over occurs, the Fru agent may restart unexpectedly causing a disruption in traffic that could last for a couple of minutes. (293489)
- Following a reload command, ports may potentially transmit an unmodulated signal from optical transceivers while the system is initializing. This may cause a susceptible peer PHY to fail RX signal recovery resulting in no link up.

Work around is to power down the card before system reload using the 'no power enable' command. (378633)

SKUs Affected: 7500E-12CQ-LC

DCS-7020, DCS-7280 and DCS-7500 Series

- Some port-channel members may be stuck waiting to be programmed in hardware if the SandLag agent happens to start up when there is much churn in the system, such as when the system is booting up.

To recover, restart the SandLag agent using this command: agent SandLag terminate (189124)

Series Affected: DCS-7020, DCS-7280CR2, DCS-7280E, DCS-7280R, DCS-7280R2, DCS-7280SE, DCS-7280SR, DCS-7280SR2 and DCS-7280TR Series

- When operating in hardware TCAM profiles that support "feature pbr ip/ipv6/mpls", interface speed changes, Linecard removal or insertion, and SandFap agent restarts might cause transient traffic loss for PBR matching flows for Port-Channel sub-interfaces. (294271)
- When new flow-spec rules are programmed, existing rules will be briefly lifted and allow matching traffic to pass. (297534)
- If dut is reloaded with Default MIP CFM configuration then SandFap may restart continously. Workaround is to remove the Default MIP configuration and clearing off stale entries from Sysdb. (351324)
- Switching from non-flex route profile to flex-route profile with 'ip hardware fib optimize prefixes profile internet' in configuration, the

SandL3Unicast agent can restart unexpectedly twice with transient traffic disruption. (366472)

- show platform sand subinterface capabilities' command results in CLI error on Sand platform. (369723)
- When a few hundred vlan mappings are configured on an interface, SandTunnel agent might restart (with SIGQUIT) while processing the configuration for the first time after reload. The new instance that gets spawned will process the configuration successfully. (370599)
- TCAM bank reservation may result in extra banks allocated to the feature after a tcam profile change. (372760)
- After forwarding plane agents restart, traffic towards EVPN VXLAN multi-homing MAC addresses may be dropped. A workaround is to shut and unshut VXLAN core-facing interfaces. (375890)
- If a faulty linecard never comes up, when it is replaced with a new, different kind of linecard, the Sand agent may crash continuously. Reload the switch to resolve this issue.. (381794)
- When drop thresholds are configured only for drop precedence 2, the thresholds are set to zero for drop precedence 1. Upon the removal of the drop thresholds, the drop precedence 2 thresholds may not be properly cleaned up and may result in features like policer to stop working. To workaround the issue, always configure drop threshold for drop precedence 1 to some value (100% even if not required) and while removal, remove the drop thresholds for drop precedence 2 before removing them for drop precedence 1. (385964)
- Some port-channel members may be stuck waiting to be programmed in hardware if the SandLag agent happens to start up when there is much churn in the system, such as when the system is booting up.

To recover, restart the SandLag agent using this command: agent SandLag terminate (392063)

Series Affected: DCS-7020, DCS-7280CR2, DCS-7280E, DCS-7280R, DCS-7280R2, DCS-7280SE, DCS-7280SR, DCS-7280SR2 and DCS-7280TR Series

DCS-7280E and DCS-7500E Series

- PIM-Bidir routes experience periodic traffic loss, roughly every 210 seconds. (348662)
Series Affected: DCS-7020, DCS-7280CR2, DCS-7280E, DCS-7280R, DCS-7280R2, DCS-7280SR, DCS-7280SR2, DCS-7280TR, DCS-7500E, DCS-7500R and DCS-7500R2 Series

- L3 forwarding agent may continuously crash if EVPN VXLAN multihoming/VXLAN L2 ECMP is configured on unsupported platforms. (381972)

Series Affected: DCS-7280SE and DCS-7500E Series

DCS-7280R and DCS-7500R Series

- If a Linecard is powered off due to detection of a hardware issue, any additional OIR on the card slot will not be able to power on the Linecard. (337169)
- 100GBASE-PSM4 modules may not link up after a reboot. The workaround is to remove and reinsert the module. (354176)
SKUs Affected: 7500RM-36CQ-LC
- VRF configuration changes with FlexRoute configuration may lead to unexpected SandL3Unicast agent restart (396898)
- Under near overflow condition of FlexRoute hardware resources, SandL3Unicast agent may continuously restart leading to traffic disruption. To recover from the condition reconfigure the network to reduce the route scale. (397885)

DCS-7020 Series

- Non-default VRF assignment for IPsec tunnel interface is not supported. Assigning a non-default VRF to IPsec tunnel interface will cause all decrypted packets for tunnel interface to be forwarded by the CPU (slow path). (377965)
SKUs Affected: DCS-7020SRG-24C2-F and DCS-7020SRG-24C2-R
- Ipsec tunnel interfaces may not have link up after SandFap agent restarts. The tunnel state is not consistent in this case.

The workaround to fix this issue is to restart SandIpsec agent. (378536)
SKUs Affected: DCS-7020SRG-24C2-F and DCS-7020SRG-24C2-R
- When an IPSec tunnel is configured on a non-default VRF, the SandFap agent may crash. The workaround is to assign IPSec tunnels to the default VRF. (381578)
- Enabling PTP on more than 40 1G interfaces will make the SandPtp agent restart unexpectedly.

To workaround this, only use PTP on 10G (or more) interfaces or mix 1G/10G+ interfaces. One 1G PTP interface can be replaced by two 10G+ interfaces without the SandPtp agent restarting unexpectedly. (393200)

SKUs Affected: 1000BASE-T, DCS-7020TR-48-F, DCS-7020TR-48-R, DCS-7020TRA-48-F and DCS-7020TRA-48-R

DCS-7050X[2], DCS-7060X[2], DCS-7250X and DCS-7300 Series

- Inserting and removing the QSFP+ transceiver will result in forwarding plane agent restart. Workaround is to configure a forced speed on the port before inserting/removing a transceiver. (226581)
Series Affected: DCS-7050X3 and DCS-7260X3 Series
- Packets may be egress mirrored to a previously configured mirror destination port if the mirror destination port is changed. (336759)
- For OSPF sessions running with BFD, if the BFD timeouts are too low there can be BFD flaps during ASU that may cause OSPF sessions to flap leading to traffic outage greater than expected. (341021)
- Stateful switchover may fail causing cold reload of the switch. There is no workaround for this issue (345279)
Series Affected: DCS-7300 Series
- Two-Rate Three-Color mode policer CLI is unsupported. (355511)
Series Affected: CCS-720XP Series
SKUs Affected: DCS-7050SX3-48YC8-F
- RIB agent restart may result in continuous restart of StrataLag agent when the Vxlan tunnels are resolved through underlay ECMP. The workaround is to "shut" and "no shut" on Vxlan interface. (360915)
- When removing security ACL by using "no ip / ipv6 / mac access-list <acl>" on a switch and if more than 1 security ACL is applied of same type IPv4, IPv6, MAC then Strata agent may restart due to heartbeat timeout.

Workaround is to detach the ACL that needs to be removed from all interfaces and then remove the ACL. (378727)
- If a DirectFlow flow is configured with both 'action output nexthop' and 'action output interface', the Strata slice agent can continuously restart until one of the conflicting actions is removed. (380873)
Series Affected: DCS-7050X2, DCS-7050X3, DCS-7300 and DCS-7320 Series
- Ingress Policy Qos sharing in SVI will not work. Workaround is to disable sharing of the ingress policy for SVI. (381433)
SKUs Affected: 7300X3-32C-LC, 7300X3-48YC4-LC and DCS-7050SX3-48YC12-F
- Sometimes during ECMP FEC entry creation or update, the StrataL3 agent may restart and recover immediately. Momentary traffic loss might be seen. (383651)
- Policy-maps applied in the egress direction might stop working on reboot or on vxlan udp-port change. Workaround is to simply remove and reapply the policy-map (388077)

- The total number of policy-map rules available is reduced by half. The only workaround is to reduce the number of QoS policy-map rules if the new limit is hit. (388187)

Series Affected: DCS-7050, DCS-7050Q, DCS-7050S, DCS-7050T, DCS-7050TX, DCS-7050X, DCS-7050X2 and DCS-7050X3 Series

- On interfaces with link-debounce time configuration, receiving remote fault indications (link fault signaling) from peers will not bring the link state down. (388215)

Series Affected: DCS-7060X, DCS-7060X2, DCS-7260X and DCS-7320 Series

- When Multi Vtep Mlag is enabled, configuring an interface to a Mlag group using "mlag <group-id>" may result in wrongly using mlag vtep ip as the source vtep address in vxlan encapsulated traffic. The work around is to restart StrataL2 forwarding agent. (389099)

- On interfaces with link-debounce time configuration, receiving remote fault indications (link fault signaling) from peers will not bring the link state down. (390179)

Series Affected: DCS-7010, DCS-7050X, DCS-7250X and DCS-7300X Series

- ARP traffic can experience larger outage during ASU which may result in flapping of OSPF sessions. There is no workaround to this issue. (390548)
- When StrataL2 is restarted in an MLAG environment, packets sent toward MLAG ports could get double delivered (391795)
- If DirectFlow flow is configured with an output interface port-channel action and any of 'set VLAN', 'set source MAC', or 'set destination MAC' actions, then LAG membership changes on the output port-channel will not be propagated to the flow.

The workaround is to make an additional DirectFlow configuration change. (392636)

Series Affected: 7368, DCS-7010, DCS-7010T, DCS-7050TX, DCS-7250X, DCS-7260CX, DCS-7260QX and DCS-7320 Series

- With uRPF exceptions applied on an interface, when the interface is moved from an active to inactive state(possibly due to speed change), changing any uRPF exception related config may cause strata agent to crash.

Workaround is to restart StrataL3 agent using "agent StrataL3 terminate" command post interface state change. Note that restarting StrataL3 might lead to a traffic drop for a slight duration (397722)

- uRPF may be disabled on all interfaces after a Strata slice agent(s) restart.

To recover, the uRPF configuration needs to be removed from all the interfaces and then re-configured. (397767)

- Replacing an ACL on an interface where an ACL of (size == slice_size - 1) is already applied on the interface will lead to the new ACL not working. The workaround is to remove all ACLs and re-apply or restart Strata slice agent. (407407)

CCS-720XP Series

- 2.5G interfaces may get into a degraded state when speed is changed to 100M or 1G in quick succession using 'speed auto <speed>'. This may result into drops on the link partner reporting FCS errors. (389343)
SKUs Affected: CCS-720XP-24ZY4-F and CCS-720XP-48ZC2-F
- 2.5G interfaces may get into a degraded state when speed is changed to 10M in quick succession. This may result into drops on the link partner reporting FCS errors. (395901)
SKUs Affected: CCS-720XP-24Y6-F and CCS-720XP-48Y6-F

CCS-720XP Series

- PoE support is not enabled. A patch is required for PoE functionality. (403131)
SKUs Affected: CCS-720XP-24Y6-F

DCS-7060X2 and DCS-7300 Series

- Changing the speed on a subordinate port (2-4, 6-8, etc.) will cause all four ports in the same group (1-4, 5-8, etc.) to flap. (294276)

DCS-7260X3 Series

- Changing interface speed on a range of interfaces on the switch might result in unexpected restart of the forwarding agent. (267755)
- The Strata agent may restart when an interface is in untrust mode, DSCP rewrite is enabled, and the speed is changed on that interface. (382409)
- Strata forwarding agent may restart unexpectedly following a speed change and result in traffic outage. This condition may persist until Strata forwarding is restarted using 'platform trident reset' (397574)
- When PFC watchdog is configured on non-master ports and we change the interface speed leading to such ports being inactive, if we configure PFC watchdog on the port after this, the Strata agent may restart. (397771)

7368 Series

- BGP will advertise the route even before routes are programmed into the hardware (387448)

DCS-7050X and DCS-7300 Series

- In an MLAG configuration, if the StrataL2 agent is restarted, traffic to MLAG interfaces may be double delivered by both switches.
Couple of Workaround options:
 1. Flapping the Peer link interface would recover the state
 2. Reapply the MLAG configurations
 3. Configure the Peer link interface and Mlag Interface in the same chip so that it uses TCAM for the split horizon (164669)

DCS-7050CX3, DCS-7050SX3 and DCS-7300 Series

- Configuring any speed less than 1G will cause continuous restart of forwarding agent. (225977)
Series Affected: DCS-7050X3 and DCS-7260X3 Series
- A single-event upset (SEU) on a TCAM associated data table can cause traffic loss. The workaround to recover from this is to do an ASIC reset. (367805)
- Ingress ACL and Policy Map rules applied to an interface set might take effect on interfaces outside the set as well. (378187)
Series Affected: DCS-7300X Series
SKUs Affected: DCS-7304 and DCS-7308
- Inserting an SFP-1G-SX or SFP-1G-T transceiver into an SFP28 port will cause continuous forwarding agent restarts until the transceiver is removed.

The workaround is to configure the first port in the quad as 10G (either leaving the port empty or using a 10G transceiver). 1G transceivers can then be used in the other three ports in the quad. (378303)

- If L3 agent undergoes a restart on the switch, routes may be incorrectly programmed in the forwarding chip. This will cause incorrect routing or traffic loss. There is no workaround for this issue. (378632)
- When forwarding table partition is configured as ALPM mode and when URPF is enabled, StrataL3 forwarding agent may restart unexpectedly. (393886)
- The Strata agent may restart when queues are stuck due to PFC WD and the speed is changed on that interface (395474)

vEOS Router Series

- When we are running vEOS in DPDK mode (MODE=sfe in /mnt/flash/veos-config) and any interface link status changes, this will cause traffic drop to happen on the system. There is no workaround for the issue. (295198)
- If two vEOS routers are configured to tunnel traffic using IPsec and the path between the two routers has a latency of 20 msec or more, the performance of the TCP sessions as seen by end systems may show degradation versus performance seen in low latency environments. This is most likely to be observed when the vEOS routers are running at full capacity with respect to their IPsec load. This problem is fixed with the software modification associated with this bug. (378110)
- vEOS-DPDK will use 100% CPU for a designated set of cores even if there are no packets to process. This is it's normal operating mode. (378543)
- Having a vEOS L3 EVPN VXLAN connection pass over an IPSec tunnel results in packets not being able to be fragmented properly. Since MTU setting is not supported on VXLAN interface the MTU has to be setup on the network to 50 byts less than the MTU of the IPsec tunnel. (378858)
- When removing a Vxlan1 interface from a vEOS device, Sfe agent might crash but it will recover (379861)
- When a number of vrfs are removed via 'no vrf defintion <vrfName>' and then re-added on a vEOS device, it is possible that the Sfe Agent will crash but it will recover. (379908)
- WRR doesn't work for traffic forwarded to the control plane. (382548)

DCS-7160 Series

- Under some scenarios where there is a significant amout of CPU bound traffic, especially with packets from new hosts whose MAC address need to be learnt, all traffic bound to the CPU may be dropped. This also requires that the ASIC ports 60-63 (as seen in "show platform xp mapping port") are configured to be in 10G/25G.

One possible way to recover is to reset the chip via "platform xp xp0

reset" in 4.22.0
and beyond. (380517)

Known Software Caveats in 4.22.1F

Accelerated System Update

- Performing SSU when /mnt/flash/persist/persistentRestartLog doesn't exist may result in extended traffic outage due to a watchdog reset that can occur. (158117)
- When performing ASU2 on an MLAG setup with VXLAN configuration, ASU2 can result in a fatal error resulting in a cold boot being performed resulting in large traffic loss. (245555)
Series Affected: DCS-7050, DCS-7060X and DCS-7060X2 Series
- When running 'reload fast-boot' or 'reload hitless', ports with optical transceivers may flap, causing traffic disruption (348172)
SKUs Affected: DCS-7050SX-128-F, DCS-7050SX-128-R, DCS-7050SX-128-SSD-F, DCS-7050SX-128-SSD-R, DCS-7050SX2-128-F, DCS-7050SX2-128-R, DCS-7050TX-48-F, DCS-7050TX-48-R, DCS-7050TX-64-F, DCS-7050TX-64-R, DCS-7050TX-72Q-F and DCS-7050TX-72Q-R
- Performing SSU with an MTU value less than 1280 on an IPv6 interface may result in a fatal error with extended traffic outage. (400408)

CVX

- If a VmTracer session configures all the available VLANs on the switch, then the switch may errdisable the routed ports by freeing up the internal VLANs. (139294)
- MSS revokes redirect rules from a MLAG peer when the last member interface on any of the port channels connected to the service device goes down. This results in redirected traffic traversing that MLAG peer being dropped.

To work around this failure, use the interface mapping from the MSS dynamic device-set configuration to statically map service device interfaces to their corresponding switch port channels. (230653)

- The MacroSegmentation Service (MSS), working with L2 transparent firewalls, requires the firewall interface be statically identified on CVX via configuration commands (as opposed to using LLDP to detect them dynamically). This prevents issues such as traffic loss in the event that a member port of an aggregated link goes down. (275384)

- If there are large number of intercept hosts in L2 policies in the order of 10k, then shutting down management cvx feature may not cleanup all DirectFlow rules (285821)
- ConfigAgent prints an error in its log that it cannot find Aegis toggle. No functionality should be effected. (372579)
- The Macro-Segmentation Service (MSS) interfacing with a firewall running in L2 transparent mode does not enforce a firewall policy that requires intercepting traffic on a VNI for the first time while one of the peers of the MLAG Service VTEP is being reloaded. MSS starts intercepting that set of hosts when the peer reload completes. (373587)
- The TopologyAggregator agent may fail on restart when an object of different value is given an already existing key. Workaround is to clear CVX state completely by going to CVX mode and shut/no shut. (393741)
- Order of acl rules on switch is different from order of policies on CVX when two or more CVX policies result in the generation of the same data plane acl rules. (401592)
- Rapid re-allocation of OpenStack VLANs with HPB enabled can cause repeated OpenStack agent restart (404868)

General

- The SuperServer agent can restart unexpectedly if tcpdump sessions are configured and a link being captured on by one of the sessions flaps. (60515)
- When a policy map of type PBR is attached to an interface that is either in down state or a switchport (or both), and if the policy map is too large to fit into available hardware resources, the CLI will not report the error and roll back the configuration. Later, when the interface becomes an operational routed interface, the policy map will not be programmed into hardware. However, "show policy-map type pbr" shows the policy applied to the interface.

To fix the discrepancy, remove extra rules from the policy map to make it fit into the hardware. (89931)

- When routing is disabled, ARP control packets share the CPU queue with other CPU bound packets. This could lead to MLAG disassociation and network outages.

The workaround is to either enable IP routing or have a static ARP entry on the MLAG peers. (90138)

- The OpenFlow agent fails to return counters associated with a flow, when queried by the OpenFlow controller using protocol version 1.0 (132812)
- On switches using the tg3 driver for the management interface a kernel panic can happen resulting in a switch reload. (136944)

Series Affected: 7368 Series

SKUs Affected: DCS-7010T-48-DC-F, DCS-7010T-48-DC-R, DCS-7010T-48-F, DCS-7010T-48-R, DCS-7020SR-24C2-F, DCS-7020SR-24C2-R, DCS-7020SR-32C2-F, DCS-7020TR-48-F, DCS-7020TR-48-R, DCS-7020TRA-48-F, DCS-7020TRA-48-R, DCS-7050CX3-32S-F, DCS-7050CX3-32S-R, DCS-7050QX-32-F, DCS-7050QX-32-R, DCS-7050QX-32-SSD-F, DCS-7050QX-32-SSD-R, DCS-7050QX-32S-F, DCS-7050QX-32S-R, DCS-7050QX-32S-SSD-F, DCS-7050QX-32S-SSD-R, DCS-7050QX2-32S-F, DCS-7050QX2-32S-R, DCS-7050SX-64-F, DCS-7050SX-64-R, DCS-7050SX-64-SSD-F, DCS-7050SX-64-SSD-R, DCS-7050SX-72-F, DCS-7050SX-72-R, DCS-7050SX-72-SSD-F, DCS-7050SX-72-SSD-R, DCS-7050SX-72Q-F, DCS-7050SX-72Q-R, DCS-7050SX-96-F, DCS-7050SX-96-R, DCS-7050SX-96-SSD-F, DCS-7050SX-96-SSD-R, DCS-7050SX2-128-F, DCS-7050SX2-128-R, DCS-7050SX2-72Q-F, DCS-7050SX2-72Q-R, DCS-7050SX3-48YC12-F, DCS-7050TX-48-F, DCS-7050TX-48-R, DCS-7050TX-48-SSD-F, DCS-7050TX-48-SSD-R, DCS-7050TX-64-F, DCS-7050TX-64-R, DCS-7050TX-64-SSD-F, DCS-7050TX-64-SSD-R, DCS-7050TX-72-F, DCS-7050TX-72-R, DCS-7050TX-72-SSD-F, DCS-7050TX-72-SSD-R, DCS-7050TX-72Q-F, DCS-7050TX-72Q-R, DCS-7050TX-96-F, DCS-7050TX-96-R, DCS-7050TX-96-SSD-F, DCS-7050TX-96-SSD-R, DCS-7050TX2-128-F, DCS-7050TX2-128-R, DCS-7060CX-32S-F, DCS-7060CX-32S-R, DCS-7060CX2-32S-F, DCS-7060CX2-32S-R, DCS-7060SX2-48YC6-F, DCS-7060SX2-48YC6-R, DCS-7150S-52-CL-F, DCS-7150S-52-CL-R, DCS-7150S-52-CL-SSD-F, DCS-7150S-52-CL-SSD-R, DCS-7160-32CQ-F, DCS-7160-32CQ-R, DCS-7170-32C-F, DCS-7170-32C-M-F, DCS-7170-32C-M-R, DCS-7170-32C-R, DCS-7170-32CD-F, DCS-7170-32CD-R, DCS-7170-64C-F, DCS-7170-64C-M-F, DCS-7170-64C-M-R, DCS-7170-64C-R, DCS-7260CX3-64-F, DCS-7260CX3-64-R, DCS-7280CR2A-30-F, DCS-7280CR2K-30-F, DCS-7280CR2M-30-F, DCS-7280QR-C36-F, DCS-7280QR-C36-M-F, DCS-7280QR-C36-M-R, DCS-7280QR-C36-R, DCS-7280QRA-C36S-F, DCS-7280QRA-C36S-M-F, DCS-7280QRA-C36S-M-R, DCS-7280QRA-C36S-R, DCS-7280SE-64-F, DCS-7280SE-64-R, DCS-7280SE-68-F, DCS-7280SE-68-R, DCS-7280SR-48C6-F, DCS-7280SR-48C6-M-F, DCS-7280SR-48C6-M-R, DCS-7280SR-48C6-R, DCS-7280SR2-48YC6-F, DCS-7280SR2-48YC6-M-F, DCS-7280SR2-48YC6-M-R, DCS-7280SR2-48YC6-R, DCS-7280SR2A-48YC6-F, DCS-7280SR2A-48YC6-M-F, DCS-7280SR2A-48YC6-M-R, DCS-7280SR2A-48YC6-R, DCS-7280SR2K-48C6-M-F, DCS-7280SR2K-48C6-M-R, DCS-7280SRA-48C6-F, DCS-7280SRA-48C6-M-F, DCS-7280SRA-48C6-M-R, DCS-7280SRA-48C6-R, DCS-7280SRAM-48C6-F, DCS-7280SRAM-48C6-R, DCS-7280SRM-40CX2-F, DCS-7280SRM-40CX2-R, DCS-7280TR-48C6-F, DCS-7280TR-48C6-M-F, DCS-7280TR-48C6-M-R, DCS-7280TR-48C6-R, DCS-7280TRA-48C6-F, DCS-7280TRA-48C6-M-F, DCS-7280TRA-48C6-M-R, DCS-7280TRA-48C6-R, DCS-7304, DCS-7308, DCS-7504N, DCS-7508N, DCS-7512N and DCS-7516N

- For interfaces undergoing maintenance by virtue of being part of a user configured/builtin unit being put under maintenance, "show maintenance" would not reflect the correct maintenance status of the interface. (141942)
- When no on-logging event-handler is configured, the EventMgr agent keeps the syslog file open. As a result, when logrotate eventually attempts to clean up old logs, the space associated with this file is not actually cleaned up, causing space to be wasted under /var/log/. Only one deleted message file is kept open when more logrotate operations are performed.

The workaround is to configure an on-logging event handler and then unconfigure it. Alternatively the EventMgr agent can be manually restarted. (177553)

- The system may power cycle unnecessarily in the event of a correctable error on the system FPGA.

The workaround is to configure the system with 'hardware fpga error action log'. (201445)

Series Affected: DCS-7050TX Series

SKUs Affected: DCS-7050SX-128-F, DCS-7050SX-128-R, DCS-7050SX-128-SSD-F, DCS-7050SX-128-SSD-R, DCS-7050SX-64-F, DCS-7050SX-64-R, DCS-7050SX-72-F, DCS-7050SX-72-R, DCS-7050SX-72-SSD-F, DCS-7050SX-72-SSD-R, DCS-7050SX-96-F, DCS-7050SX-96-R, DCS-7050SX2-128-F, DCS-7050SX2-128-R, DCS-7050SX2-72Q-F, DCS-7050SX2-72Q-R, DCS-7050TX-128-F, DCS-7050TX-128-R, DCS-7050TX-128-SSD-F, DCS-7050TX-128-SSD-R, DCS-7050TX-48-F, DCS-7050TX-48-R, DCS-7050TX-48-SSD-F, DCS-7050TX-48-SSD-R, DCS-7050TX-64-F, DCS-7050TX-64-R, DCS-7050TX-64-SSD-F, DCS-7050TX-64-SSD-R, DCS-7050TX-72-F, DCS-7050TX-72-R, DCS-7050TX-72-SSD-F, DCS-7050TX-72-SSD-R, DCS-7050TX-96-F, DCS-7050TX-96-R, DCS-7050TX2-128-F, DCS-7050TX2-128-R, DCS-7160-32CQ-F, DCS-7160-32CQ-R, DCS-7250QX-64-F, DCS-7250QX-64-R, DCS-7280CR-48-F, DCS-7280QR-C36-F, DCS-7280QR-C36-M-F, DCS-7280QR-C36-M-R, DCS-7280QR-C36-R, DCS-7280SE-64-F, DCS-7280SE-64-R, DCS-7280SE-68-F, DCS-7280SE-68-R, DCS-7280SE-72-F, DCS-7280SE-72-R, DCS-7280SR-48C6-F, DCS-7280SR-48C6-M-F, DCS-7280SR-48C6-M-R, DCS-7280SR-48C6-R, DCS-7280TR-48C6-F, DCS-7280TR-48C6-M-F, DCS-7280TR-48C6-M-R and DCS-7280TR-48C6-R

- Enabling the Macro-segmentation service can result in duplicate packet delivery of broadcast, multicast or unknown unicast traffic sourced from the host whose traffic is intercepted. Additionally, one copy can be delivered to the intercepted host that is the source of the traffic. (212480)
- When configuration of a service-policy of type pdp on an interface fails due to lack of hardware resources, the interface may not be protected by any PDP policy. The workaround is to remove the configuration of the PDP service-policy and to configure the PDP service-policy default-pdp-policy on the interface. (216365)

- A custom PDP policy configured using config-session/CVP, may not be applied to the interfaces. Detaching and reattaching the policy through CLI, should solve the issue. (222185)
- When one or more neighbors is moved to a new update-group as a result of neighbor outbound policy change, we might transiently send withdrawals/incorrect delta advertisements.

This is eventually corrected when policy evaluation of new update-group eventually completes. (226201)

- While OpenConfig is running, any YANG update will remove "ip routing" CLI configuration (251140)
- The CLI command "route-target import auto <ASNumber>" for VLAN VRF does not work and hence should not be used. Alternatively, the suggested configuration is "route-target import auto". In this case the AS Number is picked up from the BGP configuration.

Example:

```
router bgp 301
  vlan 300
    # This does not work as AS Number for generation of route target is
    explicitly
    # configured
    route-target import auto 302
```

Suggested Usage

```
router bgp 301
  vlan 300
    # In this case 301 is used as the AS number for generation of route
    target
    route-target import auto (255062)
```

- The MacroSegmentation Service (MSS) feature doesn't work in conjunction with the VARP VTEP IP configuration required for VXLAN routing where a subset of VTEPs are L2 VTEPs. (263532)
- Support for VRRPs in OpenConfig not fully implemented (268736)
- An ACL specified in a YANG update to configure an SSM range is not correctly resolved and the configuration is not updated. An error is returned to the user. (278056)
- OpenConfig fails because of an invalid type in ISIS with the log message 'expected attribute type nominal.U8, got uint8' (293256)

- The ZeroTouch agent does not properly handle 301 HTTP return codes when downloading the bootstrap script. This can lead to the device leaving ZTP mode with a default startup-config. (342098)
- When a MLAG peer (configured as a service VTEP for MSS) reloads, MSS re-installs intercept flows which may cause traffic to drop for a short duration. (349254)
- If the L3 forwarding agent is restarted when VXLAN MAC addresses are present and the route to remote VTEPs are down, then the L2 forwarding might unexpectedly restart in rare cases. (355110)
- OpenConfig affected by CVE-2019-6486 (356552)
- If multiple front-panel ethernet interfaces are configured as reflector interfaces for the same flow of traffic to be reflected, loops can be formed and hosts can flap from one interface to another when the reflector configuration is subsequently changed. The workaround is to only configure one reflector interface to handle traffic reflection. (360869)
Series Affected: DCS-7280E, DCS-7280R, DCS-7280R2, DCS-7500E, DCS-7500R and DCS-7500R2 Series
- OpenConfig agent crashes when there is an unknown keyword in the ODL RPC request (369699)
- OpenDaylight Nitrogen Lumina gives an exception reading from OpenConfig, when more than about 120 BGP neighbors are configured on the switch. (370154)
- Nitrogen ODL gives an error reading the path /interfaces/interface/arista-vxlan (370169)
- A gNMI or OpenDaylight update request may take a long time (15-30 minutes) to get a response. (370537)
- BFD configurations with large numbers of sessions may see BFD session flaps during initial session bringup shortly after boot. (375773)
- Any updates to routed-vlan config via OpenConfig at YANG path '/interfaces/interface/routed-vlan/config' removes the VLAN translation config from the respective interface. (376879)
- With a large number of sessions active, a configuration change may cause some sessions to become stuck in incorrect states. Restart the Bfd agent to work around the problem. (377125)
- A gNMI get on /interfaces/interface/routed-vlan/ipv4/config/enabled returns many interfaces which are not enabled. (378280)
- Mlag agent may crash if the system is being put in Maintenance Mode if interface profile has shutdown max-delay enabled. Workaround is as follows:

1. Create a maintenance interface profile which does not have shutdown max-delay configured with profile name being lexicographically largest.

```
profile interface zzz_no_shutdown_delay
    rate-monitoring threshold 4294967295
```

2. Create an interface group constituting all the physical ethernet interfaces of peer-link and attach the above interface profile that does not have shutdown max-delay configured.
3. Create a unit with this group and quiesce it. (380387)

- Running "encapsulation dot1q vlan" command when "switchport default mode routed" is configured makes the given port a switchport (392685)
- When performing a gNMI get on /interfaces/interface[name=Ethernet7/1]/ethernet, the gNMI server returns an rpc errors as - 'skipped' (396967)
- PTP management messages according to PTP specification are forwarded on all PTP enabled ports except for the port it is received on. This can cause a storm of PTP packets if the PTP topology is unstable and has timing loops in it. The storm of PTP packets will then cause PTP announce messages to be processed later in time by the switch, and the PTP topology may not converge. The workaround is to use a PTP service ACL to block PTP management messages from looping between boundary clocks. (397865)
- Configuration changes applied through RESTCONF do not take effect. (398831)
- The DHCP IPv4 Server can enter a deadlock state when show commands and configuration commands are run simultaneously. To clear the deadlock, execute sudo kill -9 <pid> where <pid> is the process ID of the Kea DHCP Server process. (399832)
- When a VLAN port's STP state is discarding and PTP is enabled on a trunk port on this same VLAN, the PTP agent will still continue to send PTP packets tagged with this VLAN. (400099)
- gNMI Get on nodes that failed their when statements return rpc skipped errors instead of returning nothing. (400274)
- gNMI get displays nodes whose ancestor nodes failed when statement(s); These nodes should not be displayed (400283)
- In the CLI BFD-Router Configuration mode, if the CLI command "local-address" is used to modify a BFD local-address the previous address and the new address may be present at the YANG /bfd/config/local-address path. In the CLI Interface Configuration mode, if the command "bfd neighbor" is used to modify a neighbor's IP address the previous address and the new address by be present at the YANG /bfd/interfaces/interface/config/remote-address path. (400528)

- If a YANG client deletes values at `/bfd/config/local-address`, the values may remain in yang tree even though the YANG delete is successfully applied on the switch (400568)
- When DirectFlow is enabled, flows may not function correctly after the destination mac address aging time expires. The workaround is to disable mac aging with the configuration `"mac address-table aging-time 0"` (401024)
Series Affected: CCS-720XP, DCS-7050CX3, DCS-7050SX3 and DCS-7300X Series
- When the forwarding agent hitfully starts up, PTP packets sent downstream may have invalid timestamp and the switch may incorrectly advertise itself as the GM. Valid PTP packets and correct GM advertisement will converge post forwarding agent startup. (402786)
- OpenConfig's gNMI server (Octa) when configured to provide 'eos-native' paths, the server may not stream notifications to subscribers for `origin="eos_native"` paths that are deleted and then recreated quickly. This is especially likely to happen if a subscriber connects shortly after the time the Octa agent starts (402872)
- gNMI 'get' will not show YANG data defined in `arista-bfd-augments.yang` even though the configuration exists on the switch. (406427)
- If a large number of rules are setup on a single 'ip access-list', the OpenConfig agent may use a lot of CPU time and may restart unexpectedly. (407002)
- Rapidly toggling `"bgp monitoring"` or `"sflow extension bgp"` configuration on after toggling the configuration off may result in the ArBgp agent crashing. (407890)

Layer 1

- Speed change on interfaces with `"speed-misconfigured"` `errdisable` state after hitless reload causes forwarding agent restart. This leads to the flap of all connected interfaces. The workaround is to recover all `"speed-misconfigured"` interfaces by configuring speeds of affected /2, /3 and /4 ports to match the speed of the corresponding /1 ports before hitless reload. (352115)
Series Affected: DCS-7060X and DCS-7060X2 Series

Layer 2

- Configuring VLANs within a config session that are currently in use as internal VLANs may fail with the message that internal VLANs cannot be created, even if the VLAN would no longer be used as an internal VLAN once the config session is applied. (132550)

- The configured MAC security license may not take effect after a system reboot.

The workaround is to reconfigure the license after the reboot. (147835)

- MACsec may get disabled on some ports if a "configure replace" operation is done where the MAC security profile applied to an interface is switched to another profile.

The workaround is to remove the MAC security profile from the interface and reapply. (187897)

- If Ebra agent restarts on a VTEP that is running EVPN control plane with route type 5, then it can result in VxLAN traffic loss. (276063)
- MACsec delay protection feature is not working. (282186)
- If VXLAN routing is configured on a MLAG, the VxlanSwFwd agent can crash when there is UDP traffic received on port 51023 currently used by VxlanSwFwd to synchronize ARP entries. (364633)
- With 150 or more VLANs configured on an interface in Rapid PVST mode, some received BPDUs may be dropped, leading to spanning-tree protocol timeouts that may disrupt traffic.

Workaround is to reduce the number of VLANs on the interface or to change the STP mode. (394924)

- Dot1x agent may crash during ASU if some tagged supplicant has been authenticated on the dot1x enabled port without dynamic VLAN assignment. (397693)
- Stp agent may become unresponsive following Stp instability. (405168)
- When AAA server is configured using hostname instead of explicit IP address and server IP address gets changed, Dot1x agent may crash. (406017)

Layer 3

- OSPF authentication passwords are displayed in clear text in 'show tech-support ribd running-config' output. (36313)
- If a loopback interface is only configured with a link-local IPv6 address, OSPFv3 will not advertise the address. (131369)
- When the MTU of a routed port is set to a higher value followed immediately by a similar change on the subinterfaces configured on that routed port, the MTU may not get set correctly on the sub-interfaces.

The workaround is to verify the MTU configuration is effective using the

"show ip interface" command before configuring the MTU on the subinterface. If the subinterface ever gets into a state where the configured MTU is different from the effective MTU, perform a "shutdown" then a "no shutdown" command on the affected subinterfaces to recover. (141389)

- FHRP state may start flapping between Backup and Master and Fhrp Agent may restart while dealing with large number of Virtual IP addresses. This is seen at a scale of 20K virtual IPs or more. (182399)
- On an IS-IS L1-L2 router, when an interface transitions from one level to another, accompanied by the interface going down, the Rib/IS-IS agent may restart. (235375)
- The Ldp agent may restart if configured with a large number of MPLS ECMP routes with many next hops. (273767)
- With scaled VRF config, in the order of 1K VRFs, if the Arp agent restarts, it may fail to come up. (275514)
- In certain scale situations upon a sysdb restart, arp entries can be learned in kernel but not show up under 'show arp'. When this happens, the work around is to restart the Arp agent. (275749)
- Configuring 'max-metric router-lsa' on an OSPF router may cause summary LSAs to be generated with maximum metric. (276629)
- High rate of ISIS-SR MPLS route churn may cause the Mpls agent to restart. (283149)
- Removing LDP mappings in a large scale LDP configuration may result in LDP neighbor sessions flaps. (283972)
- Auto discovery of multiple IPv6 link-local BGP neighbors over a single interface does not work and will result in only one of the neighbors transitioning to established state. (289875)
- If a sub-interface creation/deletion overlaps with it's VRF creation/deletion then the sub-interface may not be deleted properly in kernel. This prevents creation of same sub-interface in kernel again.

Workaround is to restart Ebra agent. (337707)

- When a switch is running any tcam profile with 'feature qos subintf', removing a member from a lag may cause the qos policy applied on the lag subinterfaces to be removed. (350285)
- The Macro-Segmentation Service (MSS) for Layer 3 firewalls may not correctly program traffic redirection/offload flows if the service is

enabled prior to DirectFlow being enabled on all switches.

A workaround is to shutdown the MSS service on CVX, enable DirectFlow on all supported switches and re-enable the MSS service. (366022)

Series Affected: DCS-7050, DCS-7050T, DCS-7050TX, DCS-7050X, DCS-7050X2, DCS-7050X3, DCS-7060X, DCS-7060X2, DCS-7060X3, DCS-7250X, DCS-7260X, DCS-7260X3, DCS-7300 and DCS-7300X Series

- The Arp agent restarts when a virtual IP is added and there is a matching stpername ARP entry in the kernel but not in the ARP agents internal data structures. Usually, the Arp agent will recover normally. In rare situations, the Arp agent may repeatedly restart. In this case, adding a static ARP/neighbor entry via the CLI will fix the issue with no impact on the system. Note that adding a static ARP/neighbor entry via the CLI for every virtual IP address will avoid this problem completely. (389761)
- Setting `ipv6 icmp rate-limit-unreachable 0` and shutting down all the next hop interfaces for an IPv6 default route resilient ECMP causes the L3 Agent to restart. (395322)
- CSPF may not compute a backup path correctly over LAN links if the IS-IS system IDs begin with '00' (396401)
- When an ARP entry is added while there is a matching, existing virtual IP with a non-/32 subnet, traffic loss may occur because traffic may be flooded instead of forwarded to the CPU. (402802)
- When multiple Connected Routes are deleted from the FIB that are Leaked across VRFs, the Attached Route in the Leaked-To VRFs remains as a DROP route without any ARP resolution.

The presence of the DROP route may prevent learning of the ARP if the Leaked-To VRF is required to trap the packet to CPU for the ARP resolution in the source VRF.

A workaround is to restart the Arp agent which will remove the DROP attached route from the Leaked-To VRF. (406752)

- If the number of VRFs is scaled above approximately 500-700, the VrfLeak agent may exhibit high CPU and stop processing VrfLeak policies. To address this, the VRF scale must be reduced. (407444)

Multi-agent

- There may be some traffic loss on ASU or SSO restart at high scale (i.e with a large number of next-hops). (362995)

- Performing a stateful swtichover in a switch with a large number of VRFs configured, with BGP config in all VRFs and IGPs configured in a large number of VRFs, may cause the system to restart unexpectedly, leading to traffic loss. (376773)
- The ConfigAgent may restart when there is churn in a large number of route next hops (394148)
- During ASU if L2 EVPN BGP updates and withdrawals are being received continuously by the restarting speaker, then L2RibReconcile stage might timeout causing the device to reboot. The workaround is to avoid such continuous churn in the network during ASU. (397926)
- The "Not best" output in "show ip bgp <prefix> detail" and "show ipv6 bgp <prefix> detail" does not consider the IGP cost step in BGP best path selection. These commands will claim that affected paths are "Not best" due to some comparison performed after the IGP cost step. This is specific to the show command output; best path selection itself handles IGP cost correctly. (401354)
- If using the VRF Leak feature to leak IPv6 routes from one VRF to another and the source VRF is deleted before unconfiguring the policy, the leaked IPv6 routes may not be removed from the destination VRF. (404369)
- The Bgp agent can restart during initial neighbor establishment under certain circumstances of high peer and route scale. Once the peers are established, the problem will not manifest. Restart of the Bgp agent in this manner can cause traffic disruption. (405643)
- On a router configured with BGP neighbor out-delay, the Bgp agent may restart if a route is withdrawn and relearned in quick succession. If the out-delay of the newly relearned route expires before the earlier withdrawal is transmitted to all the peers then the Bgp agent may restart. (406875)
- When a BGP peer configuration modification results in a RibOut change, if while the peer is being integrated in its new RibOut, a route changes bestpath and the new bestpath is received from the same peer, then the expected withdrawal for the route may not be issued towards the peer. (409832)

Rib

- When both IPv4 LU and IPv6 LU are enabled, the BGP tunnel table may enter an inconsistent state that requires a clearing of neighbors. (384365)
- In the ribd routing protocol model, prior to EOS 4.21.3F release, the command
"neighbor <peer|peer-group> send-community extended" (under "router bgp")

will result in both standard and extended communities being sent (in outbound route advertisements) to the corresponding peer.

Starting with EOS release 4.21.3F this behavior has changed. The command "neighbor <peer|peer-group> send-community extended" will result in *only* extended communities sent to the peer.

If the previous behavior is desirable, then the command "neighbor <peer|peer-group> send-community" without additional keywords can be used. This command will ensure that all applicable community types are included in outbound route advertisements for the peer.

This change can be done in any release (running EOS version 4.18.1F or newer) prior to the upgrade to EOS 4.21.3F (or newer) release.

EOS 4.21.3F or newer releases allow much more granular control of what community types (standed, extended, large communities etc.) are included in the outbound route advertisements. (384629)

- When removing the last VRF Leak route configuration, the formerly-leaked routes may remain in the routing table until a VRF leak policy is re-established. (391254)
- The command 'show bgp ipv4|ipv6 unicast <prefix> detail' causes the Bgp agent to restart. Use 'show ip|ipv6 bgp <prefix> detail' instead. (394413)
- If a BGP peer sends an Update message containing an IPv4 MPLS VPN NLRI, the Rib agent will restart. (406374)

MPLS

- Additional validations performed during LDP session establishment (400990)
- The RSVP agent crashing or restarting could cause the Layer 3 platform agent to crash. (404206)
- LDP Pseudowires which are resolved via ISIS-SR tunnels may drop traffic on switches with only Jericho or Jericho+ linecards (406211)

MLAG

- If non-MLAG reload-delay is configured to be lower than the MLAG reload-delay when LACP standby is used, traffic entering the non-MLAG interfaces

destined towards hosts on the MLAG interfaces will be lost during the LACP standby period. (83330)

Multicast

- When multicast routing is disabled, changing the state of a port in a non-default VRF will not correctly update the port in L2 multicast floodset. As a result, packets destined to the port's multicast group will not reach it.

The workaround is to enable multicast routing. (142942)

- During KernelMfib restart, the agent might not program or update a multicast route in the kernel when there are many VRFs. This might cause problems if the restart takes place during SPT switchover. The multicast route might not switch to SPT. (217771)
- In high scale scenarios MSDP agent might crash. (259987)
- An S,G route may not properly cleanup previously sent S,G joins. This would prevent S,Gs from being deleted in the upstream router. A work around is to flap the interface in which the join is sent on. (291756)
- In an environment with a very large number of MSDP peers, during cleanup the Msdp Agent may crash. (354364)
- If large number of IGMP reports are received in a very short interval, some of them might get dropped resulting in the multicast route not being created. The routes will be re-learned on the subsequent query interval. If "show cpu counters queue" shows consistent drops under "CoppSystemIgmp", consider increasing the bandwidth for this Copp class. (356675)
- With a scale of few thousand multicast route, and multicast traffic stopped and restarted after a while (> 5mins) some routes might get into a fastdrop state causing loss of multicast traffic. Clearing the affected multicast route can be used as a work around. (380214)
- Fast reload fails when multicast is configured on a non-default VRF that is not PIM enabled. The default VRF is always PIM enabled, but a non-default VRF is PIM enabled when it contains at least one PIM interface. Workaround is to enable a PIM interface on each non-default VRF. (398256)
- Running PIM over SCTP transport and PIM over datagram at the same time could result in periodic PIM join-prune messages, that are sent to non-PORT neighbors to have an incorrect source address. As a result will be dropped by the neighboring PIM device. This will result in multicast traffic loss. (398383)

DCS-7150 Series

- If a multicast boundary is applied on an SVI which also has IGMP snooping enabled, IGMP snooping will not take effect. (138610)

DCS-7170 Series

- Port ACL configuration may lead to forwarding agent crash. Workaround is to use RACL instead if possible. (288133)
- On the 7170, when dynamic NAT is configured on the layer 3 interfaces used for ECMP, return traffic does not get NAT applied unless it comes in on the same ECMP member of the outbound NATted traffic. (398104)
Series Affected: DCS-7170 Series

Containerized EOS Series

- ISIS/OSPF/OSPF3 may not function properly in cEOS if the kernel interfaces are prefixed with "eth" (397410)
- If the underlying interface names for cEOS are prefixed with 'et', eg. et1, et2.. cEOS-lab may not detect them properly. (398432)

DCS-7020RA, DCS-7160, DCS-7170, DCS-7280R2A, DCS-7280RA and DCS-7500R with 7500RA or 7500R2A linecards Series

- The AlgoMatch forwarding agent will restart when config replace is used to configure access-lists with large number of rules. (240540)
- Following a physical error on link between Jericho and Algomatch FPGA the SandHalo agent may restart, causing ACLs to be removed and reinstalled. (283917)

DCS-7300 and DCS-7500 Series

- On the DCS-7300X series, an SEU on a supervisor SCD will cause a power cycle of the supervisor and possibly a misleading reload cause of "The system rebooted due to a watchdog". The reload cause should be "The system rebooted due to an SEU error on the SCD". (104962)
SKUs Affected: 7300-SUP and 7300-SUP-D
- When many IPv6 routes are configured and the BFD protocol in use, BFD sessions may flap when a linecard is removed or shut down. (279129)
- ManagementActive Agent crash repeatedly in rare corner case and Management0 interface is not reachable in Modular systems. Doing switchover will address the issue. (369565)

DCS-7020, DCS-7280 and DCS-7500 Series

- A linecard may be detected erroneously as removed and reinserted after an SSO switchover. (34907)
- When in MLAG mode without ip routing enabled, under some control plane oversubscription scenarios the MLAG peer link might come down. The workaround is to either enable IP routing or have a static ARP entry on the MLAG peers for each other. (90247)
- An IPv6oGRE packet terminated using decap-group with a host route destination IPv6 address will be dropped.

The workaround is to disable exact match host routes using "no platform sand ipv6 host-route exact-match". (95873)

- When a SSO switchover is triggered prior to all the agents on the standby supervisor being ready, this can result in PCIE bus errors and syslogging of the HARDWARE-3-SUPERVISOR_PCIE_SWITCH_BUS_ERROR message for the affected modules. This will result in traffic loss during switchover, and the switchover will be non-stateful. (113038)

Series Affected: DCS-7500E Series

- On DCS-7280E, DCS-7500E series, DCS-7050X, DCS-7250X, and DCS-7300 series switches, the vlan tag on IGMP messages(report, query, leave) generated by the switch is not translated in the egress direction by the switchport vlan mapping command. (113104)
- Some packet loss may be observed when IP multicast traffic has high fanout on a single physical port (e.g. trunk port with many receivers for the same multicast group on different VLANs), even when the total egress packet rate is well below linerate. The default egress buffer settings may not perform well under this scenario. This issue can be resolved by adding "platform arad buffering egress port multicast max-queues-full 1" to the switch config and rebooting the switch. (115343)
- When a large number of PBR service policies are configured and the SandAcl agent restarts a number of times, the SandAcl agent may continuously restart.

System restart will remedy the situation. (166081)

- If an ACL applied on a Port-Channel subinterface is removed while the parent Port-Channel is shutdown and then the parent Port-Channel is unshut, the SandAcl agent can restart unexpectedly. (177127)
- Mirrored traffic is not subject to egress security ACLs which are applied to mirroring destination ports. (190637)

- PBR is not supported along with IPv6 in IPv6 packets. (193914)
- If an ACL is attempted to be applied on a subinterface, whose parent port is not a routed port, the CLI will timeout. (229537)
- PBR policies applied on interfaces do not work if the interface has some subinterfaces that also have PBR policies applied. (243286)
- VTEP cannot learn a remote host's MAC address from VXLAN encapsulated IPv6 Neighbor Advertisement packets received from that host. This might be an issue in a pure IPv6 deployment where the VTEP does not receive any bridged traffic from the host. In such a scenario, the traffic toward the host will be flooded in the VLAN.

The work around for this is to force Neighbor Solicitation (NS) packets from the host for its gateway or send bridging data traffic from the host. (246676)

- ACL/PBR/QOS will not take effect on ports with VLAN Translation configured. (246982)
- A TCAM profile not compatible with all linecards in a system will not be installed on any linecard in that system. However, hardware tcam profile status may show erroneously that the profile is installed on compatible linecards.

Removing the incompatible linecard(s) or use a TCAM profile that is supported by all linecards in the system. (247842)

- VXLAN bridging traffic sent out of LAG interfaces may be temporarily dropped after an SSO event. (251398)
Series Affected: DCS-7500E and DCS-7500R Series
- When linecards are powered on/off, there may be a traffic loss for a short duration on the interfaces where vlan mapping feature is configured. (254476)
- When a DirectFlow flow is created with an action to drop the outer tag, the packet is still leaving the interface tagged. (264336)
Series Affected: DCS-7280R, DCS-7280R2, DCS-7500R and DCS-7500R2 Series
- When a physical port (e.g. Et1) is removed from a Port-Channel (e.g. Po1) that has subinterfaces configured (e.g. Po1.1), and there are subinterfaces configured under that physical port (e.g. Et1.1), the subinterfaces under the physical port can be incorrectly programmed. This results in traffic being dropped for the incorrectly programmed subinterfaces.

The workaround is the flap the subinterfaces affected. (269823)

- Unexpected DSCP rewrite may occur on a port if the port has an internal VLAN that was previously assigned to a port which had DSCP rewrite map applied.

The workaround is to apply and remove a dummy map on that interface using "[no]qos rewrite traffic-class to dscp". (274484)

Series Affected: DCS-7280R, DCS-7280R2, DCS-7500R and DCS-7500R2 Series

- If one or more linecards in a modular system is running in tap aggregation mode, a small percentage of multicast traffic on linecards running in normal mode may be dropped, following a change to membership of some tap aggregation destination groups. (275286)
- With TCP MSS Clamping feature configured, TCP SYN packets might get dropped under high CPU usage conditions if the incoming TCP SYN packet rate is high. (279370)
- PIM multicast traffic may experience a brief interruption when one or more linecards on the same modular chassis enters or leaves TAP Aggregation mode. (279972)
- When the primary and fallback policy are both changed in the same config session, traffic may stop matching on either primary or fallback policy. (287146)
- When primary and fallback policies are both changed in the same config session, some packets will not be subject to either policy for a brief period during the configuration change. (287154)
- Power cycling a 7500E linecard in a chassis with 7500E fabric modules can cause packet loss on 7500R linecards. (295825)
- When both port-channel load balance for multicast and selective ingress replication is configured, groups that get ingress replicated incorrectly replicate packet to each member of port-channels that are member of the group.
As a workaround one of the features has to be disabled. (344650)
- On DCS-7500RM-36CQ-LC linecards, rapidly enabling and disabling FEC on interfaces with 100GBASE-PSM4 transceivers can cause the interfaces to not come up, flap, or errdisable.

Workaround is to wait 20 seconds before applying another FEC configuration. (354921)

- After switchover on 64bit EOS, SandFap may crash, which would cause links to flap. (359851)

- When IPv4 or IPv6 flowspec rules exceed the available TCAM capacity, the rules for the other protocol may not be installed even if there is space in the TCAM for it. (369374)
- After SandFap slice agent restarts with PTP operational and using peer-to-peer delay mechanism, all PTP Peer delay messages ingressing PTP enabled ports will no longer reach the PTP agent. The workaround is to toggle PTP mode from disabled back to boundary. (370878)
- While in Tap Aggregation mode with VXLAN tags stripping feature enabled, forwarding of VXLAN tagged packets will be disrupted if the Sand agent or the SandFap agent restarts.

Reconfiguring the VXLAN tag stripping feature on the relevant tap ports will restore functionality. (372603)

- BGP Flowspec and traffic policy traffic filtering actions may fail to program and the forwarding plane agent may continuously crash when programming a large number of rules (> 5000) all with policer actions configured. To recover from this condition, reduce the number of policer actions configured, (377376)
- Traffic coming into subinterfaces are subject to the flowspec rules applied on the parent interface's VRF. (380533)
- If the SandFap agent has a high CPU load, PTP timestamping for the associated ports managed by the SandFap agent may be incorrect until the CPU load is reduced (381033)
- Ethernet over MPLS packets being terminated and decapped on a LDP pseudowire will be hashed as if the inner header is IPv4 rather than Ethernet (382763)
- In the presence of virtual MAC with mask configuration, packets that undergo recirculation may not be properly forwarded. The workaround is to eliminate the configuration that causes the recirculation to happen. (387535)
- When the multicast route code detects a corrupt entry in a TCAM bank it is not properly handled causing the SandMcast process to continuously restart until it is stopped by the process manager. Restarting SandMcast can be used as a workaround. (388478)
- If VXLAN is configured, PBR and QOS policies won't apply to traffic ingressing on a MLAG peer-link. (390804)
- While in TAP Aggregation mode, swapping the transceiver on a configured tool port may cause identity tagging on this port to stop functioning.

Toggling the switchport mode or "tool identity dot1q" configuration on the affected tool port will restore functionality. (391367)

- The Type Of Service (TOS) field in MPLS-terminated IP packets may become corrupted when using a user-defined TCAM profile.

A workaround is to add the affected packet type to 'feature ip qos' in the user-defined TCAM profile. (394854)

- With hardware accelerated sflow, the switch sometimes stops sampling traffic (394965)
- Traffic subject to CPU traffic policy `_policer_` action will not be `_forwarded_`. This includes multicast control traffic which is replicated to both the CPU but also forwarded (e.g. PIM, OSPF HELLOs, etc.). Unroutable unicast traffic is also flooded, and so will not be forwarded if matched by a CPU traffic policy policer action. An example policy of concern is

```
traffic-policies
  traffic-policy EXAMPLE
    match PIM ipv4
      protocol pim
    actions
      police rate 1024 kbps
```

In this example, PIM control packets would be policed to 1024 kbps to the kernel, but dropped completely on any outbound interface.

NOTE: If the traffic subject to policing is only bound for the CPU port (e.g. unicast control plane traffic such as BGP packets), there is no impact. (395561)

- In the event of a SSO, reload, or SandTunnel agent restart, sub-interface, VLAN Translation, LDP MPLS Pseudowires, and other features that require egress VLAN tagging may mis-forward and not tag egress traffic.

The workaround is to re-configure these features to correct hardware programming corruption cause by the SSO, reload, or SandTunnel agent restart event. (405157)

- Advertising BGP Flowspec rules with police action while having insufficient TCAM space may cause the SandAcl agent to restart. (405381)

- Host routes may not be installed in hardware when uRPF is enabled with "ip hardware fib optimize prefix-length 32 urpf" configuration. The workaround is to disable uRPF. (408073)
- When the Tc-Counters pmf profile is applied and packet-type mpls-over-gre outer-ip is enabled, bridged mpls-over-gre packets will be dropped (408835)
- On a linecard OIR, BGP Flowspec rules may fail to get installed for interfaces on the OIR linecard. (409795)
- TCAM reservations are not preserved after a system reboot. (410069)

DCS-7280E and DCS-7500E Series

- On the DCS-7280E and DCS-7500E series, disabling autonegotiation on a port with a 1G fiber transceiver can cause occasional link flaps.

The workaround is to always enable autonegotiation on these ports. (70667)
 SKUs Affected: 7500E-72S-LC

- IPv4 egress RACLs will not filter multicast traffic in shared mode. In unshared mode, multicast traffic is filtered only if ingress replication is enabled. (131660)
- An IPv6 Egress ACL applied to a Port Channel is not applied to a newly added member interface, if the member interface already has the same ACL applied to it. The workaround is to remove the ACL from the interface before adding it to the PortChannel. (141736)
- SAND_POSSIBLE_STUCK_PORT may be logged on an Ethernet interface after switch initialization, which can cause an interface to not transmit packets despite being up.

A workaround is to perform a full reset of the corresponding forwarding chip using the "reset platform arad <forwarding chip name> full" command. All Ethernet interfaces on that forwarding chip will flap; to determine all the Ethernet interfaces on the forwarding chip, run "show platform arad <forwarding chip name> map | grep Ethernet". (201096)

- In multi-agent mode, configuring multiple VRFs and Vxlan routing may lead to continuous OOM failures. (399674)

DCS-7280R and DCS-7500R Series

- In MPLS L2EVPN configuration, traffic requiring 3 or more LU labels to be pushed, may not be forwarded correctly. (275834)
- On the 7500R-8CFPX-LC linecard modules, rapid removal and reinsertion of the transceiver may result in the Denali agent restarting.

Inserting transceiver 10 seconds after removal from the same slot is the workaround. (293594)

SKUs Affected: 7500R-8CFPX-LC

- With CPU traffic policy configured with high VRF scale, the Acl agent may unexpectedly restart. (379101)
- SSU is not supported with port-channels containing members with auto-negotiation enabled. (407035)

Series Affected: DCS-7280SR and DCS-7280TR Series

DCS-7020 Series

- When multiple Ipsec tunnel interfaces are shutdown, then "no shut" in a short period of time, routes associated with some tunnel interfaces may not be installed after "no shut". The workaround is to do shut/no-shut again on the individual tunnels where routes not installed. (377984)

SKUs Affected: DCS-7020SRG-24C2-F and DCS-7020SRG-24C2-R

- When traffic is flowing from a 10G interface to a 1G interface and PFC is enabled on the ingress 10G interface, if the administrator changes the COS to TC mapping all the incoming traffic on the 10G interface is dropped. The only way to recover is by restarting SandFap. (400653)

DCS-7020RA, DCS-7280R2A, DCS-7280RA and DCS-7500R with 7500RA or 7500R2A linecards Series

- VXLAN packets that are decapped and bridged are incorrectly subject to the IP ACL applied on the ingress port. (221457)
- The HaloFpga agent will continuously restart if SandFap agent is restarted.

The workaround is to powercycle the linecard or powercycle the switch if it's a fixed system. (252069)

- Using AlgoMatch ACLs on routed ports, subinterfaces or SVIs may not work if QoS policies are applied on the same interface. (387932)

DCS-7050X[2], DCS-7060X[2], DCS-7250X and DCS-7300 Series

- Traffic streams matching DirectFlow flows with VLAN or MAC rewrite actions could face brief disruption across a StrataL3 agent restart. (111833)

Series Affected: DCS-7050 and DCS-7050X Series

- The WRED drop decision obtained from the ECN configuration on tx-queue 0 is also used to determine whether packets should be dropped on UC8. This can result in control packets enqueued on UC8 getting dropped if UC0 is experiencing WRED drops for non ECT packets enqueued on it. A workaround is

to use a queue other than tx-queue 0 for applying ECN. (125803)

Series Affected: DCS-7050 Series

- Toggling the priority flow control (PFC) configuration on an interface carrying traffic may cause all incoming traffic to be dropped. The workaround is to restart the Strata agent. (138511)
- On the DCS-7250X and DCS-7300X series, the packet flow for vxlan decap +routing into ecmp can be dropped if the ecmp members are in different Linecards. (181934)

Series Affected: DCS-7250X and DCS-7300X Series

- Some of the MACs learnt over remote VXLAN VTEPs go missing in hardware and are never relearnt when a member in peer-link port channel is shut then unshut. (184732)
- MAC ACLs and PACLs cannot co-exist on the same interface if QoS policy ACLs exist in the switch (186949)
- On an MLAG pair of switches, with fast-MAC redirect enabled, the Macro-Segmentation Service (MSS) can fail to recover from a MLAG port channel member link flap.

The workaround is to shut/ no-shut the port channel connected to the intercepted host experiencing traffic loss. (213199)

Series Affected: DCS-7050X and DCS-7060X Series

- The OpenFlow agent may fail to send a packet to a controller if the table profile in use is 'auto' and there is a lower priority flow that matches the traffic and drops it. To workaround this, use a different table profile. (217965)
- DirectFlow flow in table type vfp will not match malformed Arp requests. (233922)
- When traffic is redirected using PBR and when the FIB lookup based on destination IP address indicates ARP miss, the PBR redirected traffic may be rate-policed.

The workaround is to use count action for the ARP-needed class. (238084)

- If nexthop resources are exhausted as indicated by syslog VXLAN_HWHER_NEXTHOP_RESOURCE_FULL, forwarding of BUM traffic to that VTEP will be affected. (246391)

Series Affected: DCS-7050X and DCS-7060X Series

- During an SSO failover, Strata Fabric agent may not detect hardware, resulting in a fatal error reboot with increased traffic outage. (250129)

Series Affected: DCS-7300 Series

- In an L3 EVPN setup, traffic that is sourced by a VTEP that is a pure VXLAN router (i.e., it performs no VXLAN bridging and has no hosts attached to it) might incur some loss at the receiving VTEP, where the packets are decapsulated and forwarded.

Configure a custom PDP policy with the vxlan-vtep-learn class set to count to work around this issue. (251117)

- SSO can fail with a fatal error if switchover occurs before Strata forwarding plane agent has finished initialization. (254603)
Series Affected: DCS-7300 Series
- When IPv4 uRPF exceptions are already programmed, configuring IPv6 uRPF exceptions imposes a heavy processing load on the Strata Slice agent to do a transition from IPv4 to IPv4-v6 exception mode in the hardware. Therefore, under a scaled config scenario, the Strata Slice agent may restart repeatedly.

Removal of IPv6 exceptions will help in recovering the system if this condition is hit. (264449)

- The Strata agent can restart in the event a mirror session is updated while an OpenFlow flow exists referencing that particular session. (270713)
- If SSO redundancy mode is configured and a linecard is removed before it is fully initialized, RPR switchover may be performed. (283088)
Series Affected: DCS-7300X Series
- Configuring interfaces with auto-negotiation speeds may cause continuous forwarding agent restarts. (283312)
Series Affected: DCS-7260X3 Series
SKUs Affected: DCS-7050CX3-32S-F, DCS-7050CX3-32S-R and DCS-7050SX3-48YC12-F
- Shutting/Unshutting a MLAG downlink might cause the unknown unicast flooding on MLAG peer-link.
A possible workaround is to flush the MAC entries in the system (288719)
- Show directflow detail may show incorrect status if the flow has been deleted. (297693)
- Applying a large configuration containing many interface changes may result in Strata forwarding agent restart, which could cause traffic loss during the reconfiguration. (330840)
- If Strata linecard forwarding plane agent unexpectedly restarts during SSO, SSO will not complete causing a reload of the switch. After the reload, protocols like ISIS, OSPF or BGP will re-establish their sessions, which

will lead to routing flap. (330842)

Series Affected: DCS-7300 Series

- Configuring more than five different speeds simultaneously on the system will result into continuous forwarding agent restarts. (339513)

Series Affected: DCS-7050X3, DCS-7260X and DCS-7260X3 Series

- If ports with default speed other than 100G are configured for default speed, SSU may have extended outage. Workaround is to explicitly configure speed on these ports using 'speed forced <speed>' command. (342254)

SKUs Affected: DCS-7060CX-32S-F, DCS-7060CX-32S-R, DCS-7060CX2-32S-F, DCS-7060CX2-32S-R, DCS-7060SX2-48YC6-F and DCS-7060SX2-48YC6-R

- When Vxlan configuration is present, any unexpected restart of StrataL3 agent may result in continuous restarts of StrataL3 agent. The workaround is to reload the system to recover from this scenario. (344674)

- Some ports (esp. Et73-Et96 and Et103-Et104) might blackhole traffic or fail to linkup. (358361)

SKUs Affected: DCS-7050TX-128-F, DCS-7050TX-128-R, DCS-7050TX-128-SSD-F and DCS-7050TX-128-SSD-R

- Irrespective of IGMP snooping being enabled or disabled, IGMP packets will not be flooded to remote VTEPs. (368106)

Series Affected: 7300X3, DCS-7050X2 and DCS-7050X3 Series

- Executing "platform trident forwarding-table partition" in quick succession may result in unrecoverable traffic loss. The work around is to do remove and reissue the command "platform trident forwarding-table partition". (368260)

- When "hardware fpga error action repair" is configured, during the repair of a CRC error, the FpgaAgent may spuriously detect another CRC error and attempt to repair it. In rare cases, this may result in a hitful restart of the forwarding agent resulting in a traffic outage. (378895)

SKUs Affected: DCS-7050QX-32-F, DCS-7050QX-32-R, DCS-7050QX-32-SSD-F, DCS-7050QX-32-SSD-R, DCS-7050QX-32S-F, DCS-7050QX-32S-R, DCS-7050QX-32S-SSD-F, DCS-7050QX-32S-SSD-R, DCS-7050SX-64-F, DCS-7050SX-64-R, DCS-7050SX-64-SSD-F, DCS-7050SX-64-SSD-R, DCS-7060CX-32S-F and DCS-7060CX-32S-R

- GRE Tunnel Interface feature is not supported (383502)

- After switching scheduler mode, the StrataCounters agent might be unable to complete a hitless reload shutdown stage, which will cause a hitless reload to be hitful. This can be pre-identified by seeing "SBus ack error in schan command" in the StrataCounters agent log. Workaround is to reset the ASIC before running reload hitless. (388694)

Series Affected: DCS-7050X3, DCS-7060X, DCS-7060X2 and DCS-7260X3 Series

- When a VTEP is removed from a VTEP group, all mac addresses reachable through that VTEP may not be installed in HW resulting in flooding. The workaround is to flap the Vxlan interface. (390186)
- Performing SSU may result in link remaining down, flapping or cold boot if any transceivers that do not support the default interface speed and no speed configuration are present on the interface. The default interface speed for QSFP28 interfaces is 100G, for QSFP+ interfaces it is 10G, for SFP28 interfaces it is 25G, and for SFP+ interfaces it is 10G.

Workaround is to explicitly configure the required speed on all the ports. (392658)

- DCS-7060DX4-32 and DCS-7060PX4-32 are not supported in this release. (395567)
- If a sub-interface is configured and deconfigured, control plane traffic on that interface may not be forwarded after a stateful switchover. Workaround is to reload both supervisors. (395580)
Series Affected: DCS-7300 and DCS-7320 Series
- When the forwarding agent hitfully starts up, PTP packets sent downstream may have invalid timestamp and the switch may incorrectly advertise itself as the GM. Valid PTP packets and correct GM advertisement will converge post forwarding agent startup. (395916)
- Acl drop, log features may not work when the destination MAC address aging time expires. The workaround is to disable MAC aging with the configuration "mac address-table aging-time 0" (397370)
Series Affected: 7300X3, CCS-720XP and DCS-7050X3 Series
- Unexpected link flaps may occur on front panel ports Eth49/1-Eth54/1 due to unstable power rail configuration. (398662)
SKUs Affected: DCS-7060SX2-48YC6-F and DCS-7060SX2-48YC6-R
- Changing MMU Profile configuration while PFC watchdog has detected stuck queues on an interface can result in packets getting sent out from the interface instead of getting dropped. (400780)
- Having any ACLs with UDF qualifiers as well as any of the following LAG/ECMP hashing features present in the configuration: RRoce hashing, flexible hashing or TTL/HopLimit hashing, will result in incorrect operation of the LAG/ECMP hashing where the swich incorrectly hashes on IP payload. To avoid this problem the conflicting feattures should not be configured at the same time. (403182)
Series Affected: DCS-7050X, DCS-7050X2, DCS-7060X, DCS-7060X2, DCS-7260X3 and DCS-7300 Series

- The switch may not reboot after an internal power failure, resulting in traffic loss until the switch is manually power cycled (405573)

SKUs Affected: DCS-7050TX-64-F, DCS-7050TX-64-R, DCS-7050TX-64-SSD-F, DCS-7050TX-64-SSD-R, DCS-7050TX-72-F, DCS-7050TX-72-R, DCS-7050TX-72-SSD-F and DCS-7050TX-72-SSD-R

CCS-720XP Series

- After a user or watchdog reboots the system, forwarding agent restarts and link flaps may occur if the system is configured to maintain PoE power during reboot.

The workaround is to configure the system to not maintain PoE power during a reboot with 'reboot action power-off' and then reboot the system. (396969)

Series Affected: CCS-720XP Series

- In the event of an SEU on the system FPGA, a power cycle may not correct the SEU if the system is configured to maintain PoE power during reboot.

The workaround is to configure the system to not maintain PoE power during a reboot with 'reboot action power-off' and then reboot the system. (402836)

Series Affected: CCS-720XP Series

DCS-7010T Series

- 802.1x pause and guaranteed bandwidth cannot be configured at the same time. (91141)
- Under certain circumstances, some switch chips or fabric chips may no longer be programmed by platform agents until they are manually reset. (404133)

DCS-7060X and DCS-7300 Series

- If RPR or SSO is configured, Strata fabric agent restarts may cause switchover to occur. (368082)

SKUs Affected: DCS-7304 and DCS-7308

DCS-7260X3 Series

- Ports with 1g transceivers will still count towards the limit of 5 speed classes even when disabled and may lead to continuous restart of the Strata forwarding agent. It can cause traffic outage on other ports.

Workaround is to remove the 1g transceiver. (338741)

7368 Series

- An interface may fail to link with a MAC Local Fault indication.

The workaround is to run interface configuration command "shutdown" followed by "no shutdown". (341316)

Series Affected: 7368 Series

- L3 flooded packets do not preserve VLAN priority values. (365998)

DCS-7050 and DCS-7300 Series

- 25G optics are not supported. Inserting one would lead the forwarding agent to crash continuously. (199036)

DCS-7050X and DCS-7300 Series

- Configured as MLAG, link flap of one or more LAG peer-link member ports could cause brief flooding of packets over the peer-link and can also lead to double delivery of packets on the MLAG interfaces. (117870)
- (A1 silicon only) MPLS traffic gets incorrectly prioritized, causing other traffic on the same port to get dropped. (160269)
- Altering the priority of transmit queues of a port will result in some traffic loss on that port. (194460)
- With hitless restart of the Strata agent or SSU of the switch, PFC will be momentarily disabled and the egress queue buffers can get drained without proper flow control. (381151)
- A single-event upset (SEU) on the tables REPLICATION_FIFO_BANK* may not be corrected, which may lead to traffic loss. (391625)

DCS-7050X2 and DCS-7300 Series

- If the switch receives a VLAN-tagged VxLAN encapsulated packet destined to the switch's VTEP IP address, but the packet's destination MAC is not the switch's MAC, such a packet is flooded to all ports in the ingress VLAN including the ingress physical port. (261494)

DCS-7050CX3, DCS-7050SX3 and DCS-7300 Series

- Egress ACL on SVI for BUM traffic will not match ACL rules for packets being sent across fabric interfaces. (284543)
- Gratuitous ARP packets sent from CPU with source MAC as VARP Mac address may get encapsulated twice to remote VTEPs with SIP as local VTEP Ip and VARP Vtep Ip resulting in mac address move for the VARP mac address in

remote VTEPs. This may result in momentary traffic loss. The workaround is to increase the GARP advertisement interval with command "ip virtual router mac advertisement-interval <interval>" to reduce the frequency of MAC address moves. This issue only affects configurations that contain ip virtual-router address. (289986)

- When performing SSU, there may be failure in table programming resulting in fatal error cold reboot with extended traffic outage. (399774)
- When virtual router mac address is configured, all traffic destined to that mac address on non routable vxlan vlans may get dropped. There is no workaround to this issue. (405115)

Series Affected: CCS-720XP and DCS-7050X3 Series

- Adding a port-channel to a vlan containing an ethernet-segment will cause StrataL3 agent to crash continuously. The workaround is to remove the port-channel from the vlan. (406004)
- Adding interfaces to a port-channel that is an output interface on a flow with VLAN/SMAC/DMAC modification may cause traffic to egress that port-channel without performing the modification. This can be resolved by toggling or otherwise modifying affected flows. (409975)

Series Affected: 7300X3 Series

Transceiver Series

- When performing an accelerated switch upgrade with the command reload fast-boot, some transceivers may experience a link interruption. This can occur on dual-speed QSFP100 optical modules that support both 100G and 40G, specifically when the module is configured to operate at 2x50G. Examples include the 100GBASE-PSM4 and the 100GBASE-CWDM4. (343684)

vEOS Router Series

- The OpenFlow agent fails to handle packet-in messages (145001)
- A reboot due to a kernel panic can happen during first 10 minutes of vEOS bootup on Microsoft Azure. The kernel panic occurs because of a task blocking without being scheduled for more than 300 seconds in "D" state. (249618)
- When running vEOS devices in Sfe mode with interfaces having an MTU of 9214, users may encounter a scenario where not all routes are propagated through the network. The workaround is to have interfaces use an MTU of 9202 or less. (289886)
- On a vEOS-DPDK system, if the MTU of the Ipsec or GRE tunnels is configured to be larger than the MTU of the underlying interface, packets won't be forwarded correctly. The work-around is to configure the tunnel MTU to be

just below the MTU of the underlying interface. For example, the MTU for a GRE tunnel should be 28 bytes less and for an Ipsec Tunnel it should be 108 bytes less to account for the overhead of the encapsulation headers. (343876)

- On vEOS Router in Sfe/DPDK mode with many GRE/IPSec tunnels, changes to configuration may cause a long time to be applied to the datapath. (349552)
- When loading a vEOS instance in an Azure cloud, it is possible for the device to experience a kernel panic just after bootup, causing the device to reboot a second time. (354411)
- In an EVPN IRB deployment on vEOS, changing the VXLAN source-interface interface may result in EVPN ip-prefix routes not getting installed into one or more VRFs for one or more remote VTEPs. (369816)
- When multiple IPSec connections are created, some with AES encryption and some with NULL encryption and NULL authentication, bessd will crash when decrypting the IPsec packets encrypted with NULL encryption and NULL authentication. (378590)
- Adding an app-profile with no rules to a DPS policy causes the Sfe agent to restart. (401675)

DCS-7160 Series

- When mirroring destination is configured to CPU, under heavy traffic scenarios, it may be possible that switch engine ASIC may leak some packet buffers, and may eventually run out of them causing switching to stop forwarding packets on one or more ports.

Workaround is to not configure mirroring destination as CPU for a prolonged duration under sustained linerate traffic. (225142)

- In some cases, when PFC (Priority Flow Control) is configured on an interface and if the user performs a "default interface" on a range of interfaces, the XpQos agent is restarted. (245559)
- In the event of the XpAcl agent restarting, the hardware programming of ACL may not be correct.

In order to recover, remove the ACL configuration on ports/SVIs, and reattach them. (251114)

- On XP platforms, if XpMact agent restarts, and we have a large number of learned mac addresses and a large number of host routes, some of the host routes may get removed from hardware.

To recover, clear all learned mac addresses and restart XpMact. (255279)

- VXLAN routing & bridging traffic may fail to converge after Sysdb agent is restarted.

The workaround is to reboot the dut. (255957)

- In cases of high TCAM utilisation by Policy-based Routing, a 'configure replace' can result in Incorrect TCAM programming.
In such cases, remove and re-apply the same policy-map which will result in programming the correct TCAM rules. (260906)

Series Affected: DCS-7160 Series

- XPL3Unicast process may crash when the switch is reloaded if PBR policies with nexthop VRF actions are applied on an interface in the non-default VRF. (262713)
- If the capacity of prefixes/routes that can be accomodated is reached, under some conditions, new routes are not programmed even if the the number of prefixes/routes are brought down within the capacity.

Workaround is to reduce the amount of learned routes and restart XpL3Unicast agent. (372207)

- If a VXLAN enacapsulated packet with an inner (overlay) IPv6 packet is not terminated at the switch and needs to be routed based on the outer IPv4 header, the switch may incorrectly interpret the IPV4 frame as MTU exceeded and the packet may be dropped or software forwarded. Only DCS-7160 routers are effected by this issue. (391800)

Limitations and Restrictions in 4.22.1F

Accelerated System Update

- Aborting 'reload fast-boot' command with Ctrl-C is unsupported (344574)
- Rib agent can restart when the scale of IS-IS adjacencies are huge and multiple IS-IS adjacencies flap and/or multiple prefix-segments are flapped (345657)
- On systems with 4GB of /mnt/flash space, there may be insufficient space to store both an old swi image and a new swi image to perform an SSU upgrade. The workaround is to delete the old swi image from /mnt/flash prior to performing the upgrade. (385364)
- Performing SSU with daemon agent CLI configuration is not supported (399042)

CVX

- MapReduce Tracer is only recommended for deployments with 128 or fewer TaskTrackers.

If a switch has more than 128 directly connected TaskTracker nodes with MapReduce Tracer deployed, then the MapReduceTracer Agent can increase CPU utilization significantly. It is recommended to keep the directly connected TaskTracker count to below 128 when MapReduce Tracer feature is deployed. (80403)

- Switches and CVX instances participating in a CVX setup must either all run 4.15.4F or later, or all run images from before 4.15.4F. (146664)
- If a CVX service agent connects to a client switch running a newer software version, the service agent may fail to connect to the client.

Upgrade the CVX software to a version greater or equal to versions running on all client switches. (219403)

- The Macro-Segmentation Service (MSS), requires MLAG fast redirection be enabled on the service MLAG TOR pair, when configured to work with a L2 transparent FW. This configuration minimizes traffic loss when any individual interface in the MLAG port channel goes down. (268291)
- The MssClient agent, can restart unexpectedly, when the MacroSegmentation Service, deployed with a L2-transparent firewall and is configured to intercept more than 10,000 end-points on a single switch (a number that's far greater than the total number of intercepts possible on the switch). (283221)
- Mss does not support traffic interception for the hosts connected to Service VTEP. (354754)
- The MacroSegmentation Service (MSS) allows users to configure multiple tags on CVX that can be used in firewall policy definition, to identify policies MSS should work on. It is however not possible to delete one of the multiple tags configured.

A workaround would be to remove all tags and reconfigure the subset required. (372320)

- In Macro-Segmentation Service (MSS) for L3 Firewalls , Virtual SVI IP addresses cannot be treated as intercepted hosts and thereby cannot be added to any redirect policy. However, these IPs can still be part of offload policies, even though implicit redirect will not work for them. (372504)

- MLAG devices in an environment with the Macro-Segmentation service (MSS) configured (with L3 firewalls), should have a high-priority DirectFlow rule configured to ignore traffic over the MLAG peer link. This can be configured using the following flow definition on each switch (assuming Po1 is the MLAG peer link):

```
flow bypassPeerLink
    priority 65535
    table trident ifp
    match input interface Po1
    match ethertype ip (375185)
```

- The Macro-Segmentation service (MSS), running with L3 firewalls, requires the following flows to be configured on the service VTEP devices connected to the firewall manually in order to prevent return traffic from the firewall from being subject to MSS rules again. The flows required are:

```
flow bypassFwIntf3
    priority 65535
    table trident ifp
    match input interface Po1103    >>>>>>> lag interface connected to FW
    match ethertype ip
    !
flow bypassFwIntf4
    priority 65535
    table trident ifp
    match input interface Et31    >>>>>>> phy interface connected to FW
    match ethertype ip
    ! (375189)
```

General

- The CLI does not allow access to files whose names contain spaces. (539)
- LACP PDU fast rate ("lacp rate fast" on an Arista switch) should not be configured on any port in an MLAG pair, or any port connected to an MLAG pair. (13950)
- Copying boot-config containing a SHA-512 boot secret to switches with Aboot 2.0.7 or older will reject all boot passwords upon reload and the password recovery procedure will be required. (50695)
- When VmTracer is used in a network that includes Cisco devices, ESX hosts connected to the Arista switch will see CDP frames from the Arista switch as well as from the other Cisco devices. VmTracer will display the VM info when the ESX host reports Arista's CDP info, but then will delete it when the ESX host reports other CDP info.

The workaround is to drop all inbound CDP on all ports using MAC ACLs. (101756)

- Running the CVX server on physical switches is no longer supported (149359)
- EOS SDK-based applications must be run via the 'daemon' command configuration. They cannot be run directly from bash. (158431)
- EOS extension scripts and agents which do not use EOS-SDK will need to be modified to work in 4.16.6M and beyond. (158467)
- Private VLAN is not supported in the EOS image distributed to US customers. (159408)
- EOS swix extensions containing RPMs which were based out of or procured from Fedora distributions prior to Fedora 18 may fail to install due to dependency issues. Suggested workaround is to recreate the swix files with the corresponding RPMs from Fedora 18 distribution. (162325)
- Packets with size greater than MTU of egress interface will not honor directflow flows and may not be forwarded (180927)
- SSO is hitful with subinterfaces. Protocols running on subinterfaces may experience session flaps during SSO. (188070)
- ACL drop counters cannot be cleared. (202905)
- when ACLs are configured with stats over port-channels, these stats are kept at the physical port level not at the port-channel level. (203131)
- With international and HW-REV-01 images and the introduction of "ip access-group <access-list name>" other configuration commands beginning with 'ip' that are configurable in the global config mode are not accessible in "router bgp" mode.

To access those commands exit the "router bgp" config mode to switch to the global config mode. (219390)

- Changes made to running-config after a config session is created might be reverted when the config session is committed which contains changes in similar or related areas. Use 'show session-config diff' inside the config session before committing to verify what changes will be made. (226850)
- The uptime in the output of "show module" may not match the uptime as shown by "show version" or "show uptime". The uptime in "show module" represents the time the module has been up since the last change in the "Status" column in the output of "show module", which differs from the meaning of uptime in "show version" and "show uptime". (248230)
- Intercept hosts on trunk ports with native vlan are only supported on 7050X2 platforms (257580)
- To avoid interoperability problems when using strong SNMPv3 encryption algorithms, follow the following minimums:

- When using AES192 for privacy, use a minimum of SHA224 for authentication.
- When using AES256 for privacy, use a minimum of SHA256 for authentication. (268290)
- If /mnt/flash gets full and some EOS agent is stuck in the crash loop, the Fossil service will end up filling up /var/tmp. The work around is to free up some space on /mnt/flash. (375563)
- The CLI commands "locator-led [multifan | powersupply | chassis]" will not cause multifan, powersupply and chassis LEDs on the front panel of the system to flash, as they did on previous generations of fixed systems. The beacon LED on the back panel of the chassis is purple by default. The CLI commands "locator-led chassis" causes it glow red instead of expected blue. (395892)
 SKUs Affected: DCS-7050SX3-48YC8-F and DCS-7050SX3-48YC8-R

Layer 1

- On Vxlan MACsec proxy, disable learning is not supported on proxy patch vlan. (284348)
 SKUs Affected: 7500R2M-36CQ-LC, DCS-7280CR2M-30-F, DCS-7280SRAM-48C6-F, DCS-7280SRAM-48C6-R, DCS-7280SRM-40CX2-F and DCS-7280SRM-40CX2-R

Layer 2

- Static ARP inspection may not work on modular platforms after SSO switchover. The workaround is to disable and re-enable static ARP inspection after switchover. (244477)
- The command "lACP rate fast" is not supported on modular systems with stateful supervisor switchover (SSO) enabled. Neighboring devices should not have "lACP rate fast" configured on ports connected to the said system. (248121)
- In a MACsec profile, when a primary key's CKN is changed, then operating primary continues to be principal actor even when a fallback key is configured till the time the new primary establishes a successful MKA session. There is zero traffic disruption. (275678)
- In MACsec, currently there is no show command to reflect the status of "sci" configuration. (277751)
- Port Security Protect does not support trunk ports. If a port is secured to source MAC <A> in VLAN <X>, traffic from source MAC <A> in other VLANs of the trunk port will also be allowed. (344773)
- While performing SSO, a device's peers might not receive LLDP packets within default TTL (120 seconds) and those peer devices may not maintain

LLDP status information for the device undergoing SSO. After SSO is complete, the peers will again have LLDP state available.

To avoid losing LLDP state during SSO, consider increasing LLDP hold time at the remote. (347459)

- If 'traffic unprotected allow' is configured in a Macsec profile, agent restart or Stateful Switchover may result in traffic loss (362766)

Layer 3

- ECMP is not supported for routes learned via RIP. (34773)
- DHCP relay is not supported when running virtual machines on EOS (101754)
- In a multi-topology IS-IS router, changing the address family or IPv4/IPv6 addresses of an IS-IS interface results in a flap of the IS-IS adjacency. (115993)
- CLI does not detect TCAM exhaustion and automatically revert the change when a PBR policy is applied to an L3 interface in the "shutdown" state, since the actual hardware programming happens when the interface comes up. (122651)
- OSPFv3 support for multiple address families (RFC 5838) in EOS introduces support for IPv4 routing with OSPFv3. OSPFv3 for IPv4 AF in EOS requires configuring neighboring OSPFv3 IPv4 routers on the same link with primary IPv4 addresses in the same subnet. Adjacency is established in OSPFv3 IPv4 AF even if the neighbor's primary IPv4 address is in a different subnet but routes through the neighbor on a different subnet will however not be installed. This limitation may be removed in a future release. (140234)
- When BFD is unconfigured with Fhrp as the only client and/or BFD is administratively shut, both VRRP routers will become Master. This transition is temporary and Master-Backup relationship will be restored. (159647)
- BFD echo functionality is not available on L2 Port-Channels with BFD RFC7130 mode enabled. (190418)
- If a port channel is configured with "bfd echo" and "bfd per-link rfc-7130" and is used for OSPFv3 or PIM, BFD sessions will not come up with echo functionality. BFD with SSO for OSPFv3 or PIM is not supported. (190997)
- BMP is not supported for router bgp instances configured in non-default VRFs. (210363)

- SSO is not supported when BFD is configured for ISIS IPv6 sessions. (239704)
- An LACP port channel configured with BFD per-link and echo may experience BFD session flap on existing member links if new member link(s) are added to the port channel while the BFD peer device undergoes Stateful Switchover (SSO). (255042)
- Eos does not support programming IPv6 ECMP paths to kernel (258387)
- The DSCP value of BGP control plane packets set by the command 'bgp transport qos dscp <value>' will be overwritten when the platform 'qos rewrite dscp' is enabled and the outgoing interface is a SVI based on traffic-class to dscp map present on the platform. (269764)
- VRF support is 256 VRFs on 32G memory platforms, 64 VRFs on >= 8G memory platforms, 32 VRFs on < 8G memory platforms. (271478)
- In the output of the "show ipv6 dhcp relay counters" or "show ip dhcp relay counters" command, interface-specific DHCP relay counters might not sum up to "All Req" and "All Resp" counters. (278786)
- Tunnel interfaces flap when configuring ttl, tos and path mtu discovery on them. (281464)
- IPv6 addresses are not supported as tunnel source and destination. (283912)
- High MPLS route scale or high MPLS route churn may cause the platform agent to restart unexpectedly. (289217)
- High MPLS route scale or high MPLS route churn may cause the platform agent to restart unexpectedly. (289224)
- When BFD is configured with per-link mode rfc-7130 for an IPv6 link-local address on a Port-Channel and the Port-Channel transitions to the Down state, the Port-channel may not transition back to the UP state.

The workaround for this situation is to disable and then re-enable BFD per-link mode rfc-7130 on the Port-Channel. (343814)

- On Macro-Segmentation Service (MSS) deployment with L3 firewalls, a flow entry that fail to get programmed due to lack of TCAM space, is not programmed when TCAM space becomes available at a later time. The workaround is to "shut" and "no shut" on the direct flow config. (372232)
Series Affected: DCS-7050, DCS-7050T, DCS-7050TX, DCS-7050X, DCS-7050X2, DCS-7050X3, DCS-7060X, DCS-7060X2 and DCS-7060X3 Series

Multi-agent

- When the multi-agent routing protocol model is configured, the maximum number of next hops for an OSPF ECMP route is 128. (274888)
- With very a very low multi-hop BFD timer configured, a BFD session may flap when a path (belonging to an ECMP set), over which the BFD session is established, goes down. (287571)
- BGP session over indirectly connected interface that was down due to lack of IGP path to peering address may take around one minute to re-establish once the IGP path is available. (287628)
- Route-map specified as match-map for dynamic prefix-list is evaluated only against BGP routes. (345444)
- The IpRib agent runs out of addressable memory when a large number of routes are leaked to a large number of VRFs. (346575)
- Resolving over routes that are denied by RIB-FIB policy can have incorrect resolution when the denied route undergoes an inplace adjacency change (398183)

Rib

- No support for IPv6 labeled Unicast capability when BGP neighbor is established using IPv4 transport. (208402)
- Match dynamic prefix-list clauses in route maps are only supported for BGP inbound and outbound route maps. (261865)
- Dynamic prefix-list match clauses are not supported in BGP neighbor inbound route maps. (269663)
- The BGP configuration commands, "bgp next-hop-unchanged" and "neighbor next-hop-unchanged", are not supported in ribd mode (single-agent mode).

In ribd mode, this functionality can only be achieved via route map configuration. (275007)

MLAG

- Spanning-tree mode backup does not work in an MLAG configuration. (15151)
- Configuring a device connected to an MLAG with a round-robin LAG distribution algorithm is not supported if the device is going to participate in IGMP. (28370)

- On a scaled MLAG setup, Lag+LacpAgent agent may restart unexpectedly if MLAG is reinitialized due to configuration changes. (116125)
- MLAG ISSU is not supported for a direct upgrade/downgrade from/to 4.15.x & below to/from this release. For further details, please refer to the MLAG ISSU compatibility matrix. (159409)
- On an MLAG system configured with dual primary detection and with default control plane ACL enforced, MLAG will not form if the management interfaces of the MLAG peers are connected through extra hops (e.g., on different subnets), due to the default control plane ACL dropping MLAG control packets with TTL < 255.

The work around is to apply a control plane ACL which permits MLAG control packets with the correct TTL. (271308)

- TCAM profile switch in a MLAG switch may result in some packet duplication for broadcast or multicast packets (341353)

Multicast

- If a single IGMP snooping port has multiple multicast hosts attached and performs proxy reporting or report suppression from these multiple hosts downstream, immediate-leave must be disabled for the VLAN.

Use "no ip igmp snooping VLAN <vlanId> immediate-leave". Otherwise, some desired multicast traffic might be lost. (21367)

- After ASU reload, if the first PIM hello packet received from the neighbor gets lost and If the neighbor has a high hello query-interval, it will result in traffic loss. Workaround is to use default PIM hello query-interval and increase the PIM hello query-count. (341447)

DCS-7150 Series

- Under extreme circumstances where a high volume of broadcast or multicast traffic is sent from 10G ports to a mix of multiple 1G ports and one or more 10G ports, continuous over-subscription of the 1G interfaces could result in consumption of all system queue descriptors.

If this occurs, the 10G ports may be limited to 1G transmission rates. While this is an extreme case, CLI commands can be used to tune the maximum queue length available to 1G interfaces to mitigate this risk. (32294)

- NAT translation does not happen for a packet if the ARP for the next-hop is not resolved or is aged out. Translation will start happening again once ARP resolution completes.

The workaround is to install a static ARP entry for the next-hop that the NAT translated packet will take. (40132)

- Source port loopback suppression at high traffic rate can reduce the egress bandwidth of a port. This will happen when a port forwards incoming multicast traffic at a high rate to a multicast group which also has this port as a member. This port will receive back copies of the replicated traffic and drop them due to loopback suppression if there are no receivers on it at the egress stage of the port. (40294)
- NAT and VXLAN cannot be configured on the switch at the same time. (47258)
- When agile ports are configured for 40G with clause 73 autoneg (speed auto 40gfull) while using CR cables, the ports cannot be used in a port channel.

The workaround is to force the speed to '40gfull' on the ports. (55517)

- Systems with A0 silicon, packets are not forwarded to the egress port when egress truncation and timestamping are enabled together. Removing the configurations resumes packet forwarding. Truncation and timestamping are not supported together. (72756)
- The VXLAN flood VTEP list cannot be more than 128k VLAN-VTEPs, where VLAN-VTEPs is the number of VLANs multiplied by the number of VTEPs. (73228)
- Ingress port access control list (PACL) on a VXLAN-enabled interface is not supported. If ingress PACL is configured on a VXLAN-enabled interface, in-hardware VXLAN encapsulation of incoming packets is not expected to work correctly. VXLAN encapsulation of packets in software is not affected. Removing ingress PACL configuration on the affected interface restores correct VXLAN hardware encapsulation behavior on that interface. (76085)
- Multicast-routed frames get tx-mirrored even when they do not egress the tx-mirrored multicast destination due to VLAN suppression. This is a limitation of the switch ASIC. (87933)
- IPV6 hop-limit based filter in access-list is not supported even if accepted by CLI. (383400)

Series Affected: DCS-7150 Series

DCS-7170 Series

- If an ingress packet contains more than one 802.1Q tag and the egress port is a trunk port, the egressing packet may get corrupted. (180436)
Series Affected: DCS-7170 Series
- BFD sessions are not supported on Port-channel interfaces. The sessions will not come up. (250315)

- Changing port speed from 10G/25G/50G to 40G/100G will cause the forwarding agent (BfnSliceAgent) to restart. This can result in a brief traffic outage in the order of 100ms on all ports. The link state of other ports will not change. (256519)
- After applying or removing shaping configuration on an L2 sub-interface, the L2 sub-interface must be flapped for the configuration to take effect. (281312)
Series Affected: DCS-7170 Series
- After setting CoPP rate = 0, a few packets (<10) might be let into the CPU, but everything will be dropped afterwards. (350676)

DCS-7020RA, DCS-7160, DCS-7170, DCS-7280R2A, DCS-7280RA and DCS-7500R with 7500RA or 7500R2A linecards Series

- On devices with Algomatch enabled, removing an ACL on an interface might fail because the remaining ACLs on the system may not fit in the hardware tables. (192811)

DCS-7300 and DCS-7500 Series

- BFD on a statically-configured port channel may flap and traffic may be lost on a linecard insertion of which an interface is a member of the port channel.

Use LACP or disable the port-channel members on the inserting linecard before the linecard insertion (361336)
- Non per-link BFD sessions over port-channels may flap when a linecard where some of the port-channel's members reside is powered off with "no power enable". (363122)
- When a system shuts down due to a power overload, EOS does not log a 'power overload' reload cause (371160)

DCS-7020, DCS-7280 and DCS-7500 Series

- The L3 MTU on interfaces is not enforced on SVIs. (11659)
- Disabling IPv6 routing on an L3 interface is not supported when IPv4 routing is also enabled on that L3 interface. (43093)
- Linecards with HW revision < 02.00, when configured for 100G and a physical layer problem is present, a one-way link may result. The link experiencing the physical layer problem will be down. However, the peer link may still be up.

The workaround is to detect this situation, by, for example, looking at the link status on both sides of the 100G link, and perform remedial actions; for example, replacing the transceiver or cable. Running a keepalive protocol like LACP on these links is advised. (67325)

SKUs Affected: 7500E-12CM-LC and 7500E-72S-LC

- show interfaces counters rates' for port channels may show a slightly inaccurate data rate (including above 100%). (67367)

- Linecards with HW revision < 02.00, under extreme scenarios where we receive linerate small packets on all interfaces connected to the same forwarding ASIC and ingress mirror or sflow dangerous is turned on many of these interfaces, some packets (both the original and the mirror/sFlow copy) can be dropped. (67942)

SKUs Affected: 7500E-12CM-LC, 7500E-36Q-LC, 7500E-48S-LC and 7500E-72S-LC

- A VXLAN encapsulated packet after de-encapsulation is not forwarded back to the port on which the original packet was received. Similarly, a native ethernet packet after VXLAN encapsulation is not forwarded back to the original receive port towards the remote VTEP. (75075)

Series Affected: DCS-7500E Series

- VARP and VRRP cannot be enabled at the same time. If VRRP is configured, there can be up to 128 combinations of interface and Virtual Router ID (VRID), but there can only be at most 8 different VRIDs and the VRIDs must differ only in the 3 least significant bits. VRRP for IPv4 and IPv6 cannot be configured at the same time. (75752)
- Due to hardware limitation, if an egress IP ACL is applied on an interface which is part of a VLAN with an egress router ACL, the filtering behavior for egress traffic of that interface may be undefined. (82094)
- For packets that hit rules across multiple ACLs, the hit counts are accounted for only in a single ACL. PACL counters take precedence over RACLs and MAC ACLs, and RACL counters take precedence over MAC ACLs. (85440)
- When an egress IPv6 RACL is applied to a VLAN, IPv6 packets may not be subjected to MTU checks. (88778)
- An egress ACL on a destination port of a monitor session only takes effect for Rx mirrored packets which are IP forwarded. The egress ACL will not work for bridged packets or Tx mirrored routed packets. (89915)
- When a shaper is configured the output of the shaper has a tolerance of +30% with 100-byte frames. This reduces to +5% as the frame size is increased to 600 bytes. The shaper variance reduces when the port happens to be the endpoint of a tunnel. (93546)

- The egress per-queue byte counter is not exact for certain packet types. For routed packets the egress per-queue byte counter may be offset by +/-2 bytes. For any packets originating from the CPU, the per-queue byte counter may be offset by -12 bytes. (97660)
- Packets that attempt to do a GRE key lookup where the GRE key lookup misses will have egress IPv6 ACLs applied with the ingress VLAN (102455)
- GRE key forwarding packets that are recirculated will have no QoS policy applied to them. (102458)
- The system can run out of hardware resources to program ingress mac ACLs for a configuration that includes a large number of interfaces. (127383)
Series Affected: DCS-7500R Series
- If a double tagged frame is received on an untrusted or DSCP-trusted interface, the CoS is retained if the outgoing frame is tagged, unless the frame is routed (131614)
- Mirroring to GRE tunnels does not support GRE destinations that are reachable by sub-interfaces. (136130)
- IPv6 Egress ACL deny logging is not supported on subinterfaces. (146487)
- PBR policy is supported only on interfaces in the default VRF. If a PBR policy is configured on an interface in a user defined VRF, the behavior is undefined. (148895)
- Disabling IPv4 routing on an L3 interface is not supported when IPv6 routing is enabled on that L3 interface. When "no ip routing ipv6 interfaces" is configured to enable the forwarding of IPv4 packets over IPv6 nexthops over interfaces that do not have IPv4 address, but only a IPv6 address, it will also allow routing IPv4 traffic over these interfaces. (151356)
- While in Tap aggregation mode enabling either VN or BR tag stripping will disable VXLAN header stripping functionality. Traffic steering on the inner IP header of VXLAN packets will also be disabled.

Removing the VN/BR tag stripping configuration will restore VXLAN stripping and traffic steering functionality. (175829)
- VXLAN routing will work only with /32 attached hosts in LEM. This impacts traffic flows that involve route and encap operations. In particular, we do not support LPM lookups with VXLAN routing. Consequently, VXLAN routing is mutually exclusive with the "ip hardware fib optimize prefixes profile internet" configuration. (179037)
- When the 'vxlan-routing' hardware TCAM profile is configured, VXLAN traffic flows in overlay will

not work
alongside IPv6 traffic flows in underlay. (184930)

- When the 'vxlan-routing' hardware TCAM profile is configured, VXLAN traffic flows in overlay may not work alongside IPv6 traffic flows in underlay. The workaround is to use the CLI command 'no platform sand ipv6 host-route exact-match'. (190017)
- L2-ECMP over VXLAN is not supported for multi-homed hosts under EVPN. (193475)
- Linecards with HW revision < 02.00, IP-in-IP encapsulated packets might not get forwarded after termination if the packet size falls within the range 223-287 bytes. (193573)
SKUs Affected: 7500E-12CM-LC, 7500E-36Q-LC, 7500E-48S-LC and 7500E-72S-LC
- In Tap Aggregation mode, Tap Aggregation features may not work for 802.1BR/VN tagged packets when 802.1BR/VN tag stripping is not configured. (198798)
- Links are not compatible with systems running EOS 4.18.1F

The workaround is to upgrade both sides of the link. (199152)
SKUs Affected: 7500R-8CFPX-LC

- Traceroute to a IP route where the IP route is getting forwarded through a MPLS nexthop-group may incorrectly display the first hop as being unreachable. The actual first hop will appear in the second position. (209273)
- Frames less than 64 bytes are dropped (as expected), but not counted.

Command "hardware phy cmx42550 <intf > diag read64 mac line 0x138"
can be used to dump the counter for the purpose of debugging". (218429)
SKUs Affected: 7500R2M-36CQ-LC

- Vxlan decapped packets will not match rules that match on 'tcp established' in egress acls (226582)
- Native VLAN setting on Tap interfaces does not take effect. (227770)
- While in Tap Aggregation mode, ingress VLAN membership filtering does not work when packets are destined to a tool interface configured with egress packet truncation. (227841)
- While in Tap Aggregation mode, interfaces configured for egress truncation will continue to consume hardware resources even when they are down. (228384)

- If multiple tx-queues of a port are configured with low shape-rate values, traffic egressing out of that port on tx-queues that are not shaped, may get impacted. (241118)
- With MTU increased beyond 9100B, there can be some multicast packets of size greater than 9100B that are dropped as a port gets close to linerate. (261446)
- Changing PMF profile on one linecard may cause a brief disruption of PMF-based features on other linecards which should not be affected by the same change. (270849)
- A QoS policy, with a class map which has either set-tc or set-dscp on the ingress port and which has DSCP rewrite map on the egress port, results in indeterministic behavior with respect to DSCP remarking of the outgoing packet. (273320)
- If a QOS and PDP Policy both having police action are applied on an interface and the traffic hits both the policies then QOS Policer Counter is messed up. The "show policy-map type qos pmap-name" will give the PDP Policer Counter, not the QOS Policer Counter. (275994)
- Rate values for subinterfaces shown by "show interface counter rates" may deviate up to 15% from corresponding rate on parent interface. (278700)
- After applying or removing shaping configuration on an L2 subinterface, the L2 subinterface must be flapped for the configuration to take effect. (278730)
- Packets larger than 10196 bytes will be discarded by the forwarding ASICs. (280459)
- PFC on DSCP trusted ports is not supported. (281214)
- Loop protect feature is not supported when AlgoMatch HW is enabled. (290706)
- L3 forwarding through SVIs is not support on L2 sub-interfaces. (293410)
Series Affected: DCS-7280R, DCS-7280R2, DCS-7500R and DCS-7500R2 Series
- When a port becomes a LAG member, there may be a very brief moment where a few packets may be duplicated on the LAG. (295260)
- Fragmented IP packets will not match on flow-spec rules that include a match on TCP/UDP port. (297309)
- When all the L2 subinterfaces belonging to a parent interface are shutdown, packets are bridged and mac addresses are learnt on parent interface (300202)
Series Affected: DCS-7280R, DCS-7280R2, DCS-7500R and DCS-7500R2 Series

- VXLAN routing is not supported on a modular system on which one of the linecards is configured for TAP aggregation. (306180)
- Configuring policy-map on lag l2 sub-interface with member ports of the lag also having l2 sub-interfaces may cause SandTunnel to restart. Work around is to remove the l2 sub-interfaces on the member ports. (338794)
- When a BGP peer session is cleared, traffic which hits existing flow-spec rules may increment the wrong counter for a brief period of time. (339523)
- If non shaped sub interfaces are configured under same interface having shaped sub interfaces, traffic will egress out of the non shaped sub interfaces in a round robin fashion. It is recommended to not have shaped and unshaped sub interfaces under the same parent. (341851)
Series Affected: DCS-7280R, DCS-7280R2, DCS-7500R and DCS-7500R2 Series
- Stale telemetry flow-spec statistics may be seen until the next "show flow-spec" command is issued. (345195)
- Filtered mirroring is not supported on linecards or fixed-systems operating in TAP Aggregation mode when traffic steering is enabled. (349883)
- Hardware Accelerated Sflow is not supported if collector is reachable via tunnel. (354749)
- If more than maximum supported Ipsec tunnels are configured, it is random as to which ones are assigned flow entries within on-chip encrypt/decrypt engine. The set of Ipsec tunnel interfaces assigned flow entries may not be the same as the set of tunnel interfaces which have IKE connections established. As a result, some tunnel interfaces with IKE connection established may not get link up. (376431)
- Different streams being rate-limited by the same policer might exhibit bias towards some streams and fair policing across all the streams is not guaranteed. (380599)
- If a security-ACL is configured on a sub-interface beyond the supported limit of acls, SandAcl might restart continuously until the number of configured acls is brought back within the supported limits (398815)

DCS-7280R and DCS-7500R Series

- On DCS-7280RA, DCS-7280R2A and DCS-7020RA series switches and on 7500R modular switches with 7500RA or 7500R2A linecards, an IPv6Mpls packet terminated by L3 EVPN MPLS configuration will not be forwarded. The workaround is to disable ipv6 exact match host routes using 'no platform sand ipv6 host-route exact-match'. (201414)

- On the system with DCS-7500R linecards, if DCS-7500R2 linecards are inserted, routes may consume more resources in the hardware routing table. (215393)
- Jericho chip buffering DRAM test at agent startup does not catch bad parts while it should fail to force RMA of bad parts. (218971)
- IPv6 multicast routes are stored in two separate TCAM resources. The group IP is stored in one TCAM while the source IP is stored in another. Since one TCAM contains the source IP it will contain an entry for every multicast route. However, the group IP TCAM will reuse entries for duplicate group IPs. For example, if you have routes (S1,G1) and (S2,G1), one TCAM entry is required for the group IP and two TCAM entries are required for the source IP. This means it is possible that more TCAM resources are allocated to the source IP lookup than the group IP lookup. The scaling achieved during the initial distribution of multicast routes will be preserved. However, if the distribution later changes, optimal scaling for the new distribution may not be reached. (257364)
- MPLS ping and traceroute are not supported for VRF label routes. (343526)
- If mirroring to CPU is configured for an interface and an incoming MPLS packet on that interface matches a configured "mpls static vrf-label" entry, the packet will not be mirrored to CPU. (359362)
- Ingress ACLs and PBR are not supported for MPLS tunnel terminated traffic using VRF label. (366695)
- VRF terminated traffic is not sampled with sFlow. (369010)
- We do not support incoming multicast LDP packets with a destination multicast MAC address.
RFC 5332 doesn't mandate the use of sending labeled multicast traffic in a multicast ethernet frame. Multicast MAC destination address could be used in upstream label assignment. (393406)
Series Affected: DCS-7020, DCS-7048, DCS-7280CR2, DCS-7280E, DCS-7280R, DCS-7280R2, DCS-7280SE, DCS-7280SR, DCS-7280SR2, DCS-7280TR, DCS-7500E, DCS-7500R and DCS-7500R2 Series

DCS-7020 Series

- The interface bin counter for both in and out packets with sizes 1523-Max may be inaccurate. Packets with sizes between 9217-9236 are not counted by the switch for interfaces Ethernet 1-48. (188121)
- Mirroring and sFlow can not be supported on the same source interface at the same time due to a hardware limitation. (209060)

- AES128/SHA-1 and AES256/SHA-256 are the only supported encryption/authentication algorithm pairs. (342005)
SKUs Affected: DCS-7020SRG-24C2-F and DCS-7020SRG-24C2-R
- The current implementation of IPsec supports only encryption/authentication algorithm combinations of AES128/SHA1 or AES256/SHA256. No other combinations are currently supported. (359986)
SKUs Affected: DCS-7020SRG-24C2-F and DCS-7020SRG-24C2-R
- Using an Ipsec tunnel interface for policy-based routing nexthop is not supported. (378861)
SKUs Affected: DCS-7020SRG-24C2-F and DCS-7020SRG-24C2-R
- Ipsec tunnel interfaces are not supported as part of nexthop-group. (378890)
SKUs Affected: DCS-7020SRG-24C2-F and DCS-7020SRG-24C2-R

DCS-7050X[2], DCS-7060X[2], DCS-7250X and DCS-7300 Series

- Untagged packets received on a port with PFC enabled may be assigned the wrong priority. In case of congestion, PFC frames may not be sent or may be malformed.

The issue is observed when a port uses a default CoS value that is mapped to a traffic class with a different value. For example, if the default CoS is 0 and CoS 0 is mapped to traffic class 1. The workaround is to change the default CoS value on the port or the global QoS mapping such that the default CoS and the traffic class match. (23922)

- System does not stop transmitting traffic for the exact amount of time quanta received in PAUSE or PFC frame. This can lead to packet loss during congestion if the peer switch does not have enough buffers. The workaround is to use XON/XOFF instead of time based flow control, or to increase the time to account for one MTU sized packet. (27190)
- Running the 10G SFP+ ports of the DCS-7050Q at 100Mbps is not supported (30130)
Series Affected: DCS-7050Q Series
- QoS shaping and guaranteed bandwidth will only work in store-and-forward mode. They are not supported in cut-through mode. This includes 'shape rate X' and the 'bandwidth guaranteed X' commands. (56790)
- L3 packets destined to a next hop whose MAC address is not learned and which fail the uRPF check configured on the incoming SVI are flooded in the ingress VLAN. (75660)
Series Affected: DCS-7050 Series

- Accelerated Software Upgrade (ASU) from 4.13.x (x < 6) to 4.13.6 and above requires a special upgrade procedure due to a software image format change. (90097)
- 10 Gbps packet replication on all SFP+ ports at the same time may lead to packet discard. (91149)
- Egress L2 MTU violations in cut-through mode may result in unexpected discards of other frames. (95577)
- VXLAN encapsulated packets cannot be TX mirrored at the egress properly. The mirrored packets will have an incorrect MAC header. (97272)
- Forwarding-table partition mode 4 is not supported. (100862)
Series Affected: DCS-7010T Series
- When IGMP snooping is enabled a single unknown multicast floodset is shared across all VLANs with IGMP snooping enabled. This can cause unexpected flooding to a trunk port that has no multicast routers on a given VLAN, but has multicast router attached to the same trunk port on another VLAN. (105188)
- When "hardware access-list resource sharing vlan in" is configured, systems will start sharing resources that are required for programming access-group/access-list. In this mode only 24 port range checkers are available for programming L4 port ranges. After the 24 port range checkers are consumed, system will use port number and mask combination to program the rules in the access-list. Doing so would result in a given access-list consuming more TCAM entries in this mode than it would in the default mode. However, as the access-list is shared among multiple VLAN interfaces the effective TCAM usage can be lower.

This affects ip access-list, ip standard access-list, and ipv6 access-list.
ipv6 standard access-list
is not impacted. (105498)
Series Affected: DCS-7010T, DCS-7050X and DCS-7050X2 Series
- "hardware access-list resource sharing vlan in" configuration will not share resources required by IPv6 standard access-lists. (105502)
Series Affected: DCS-7010T and DCS-7050X Series
- When "hardware access-list resource sharing vlan in" is configured, Link Local Multicast traffic will not be intercepted by the ACL attached to the VLAN interface. (105504)
- Subinterfaces cannot be used to send or receive VXLAN encapsulated packets. (105767)
- When "hardware access-list resource sharing vlan in" is configured, changing the ACL on a VLAN interface:

1. From an ACL that is not shared with other VLAN interfaces to one that is shared with other VLAN interfaces can cause deny traffic to get permitted until the new ACL takes effect.
 2. To another ACL that doesn't fit in the TCAM can cause deny traffic to get permitted until the system reverts back to the previously applied ACL. (106646)
- If IP-in-IP decap groups are configured, "qos trust dscp" configuration is not supported on traffic matching the decap groups. (107579)
 - Vxlan and MPLS features may not be configured at the same time. (109330)
 - When "hardware access-list resource sharing vlan in" is configured and TCAM is close to being full, restart of the forwarding agent or a reboot of the box, can cause some ACLs to not get programmed properly. (109876)
 - The Accelerated Server Upgrade feature is not supported with the "hardware access-list resource sharing vlan in" configuration. (110114)
 - IGMP snooping is not supported on Vxlan enabled VLANs. The multicast packets will always be flooded locally and to remote VTEPs. (110479)
 - A front-panel or fabric port may get stuck in an errored state and drop traffic egressing the port. When this happens, the forwarding agent log will contain "port <internal port #> start error detected". This condition will persist until it is manually cleared. A forwarding agent restart is required to clear the error and forward traffic normally. (112051)
 - MPLS is not supported on subinterfaces. (113110)
 - Packets being VXLAN encapsulated are constrained to a single underlay physical nexthop per physical egress port.

Topologies involving SVIs over trunk ports, or non point-to-point routed ports towards the core will not work optimally, the encapsulated packets will be sent to the wrong next-hop for all but one of the VTEPs.

Topologies involving virtual VTEPs connected via a downstream L2 switch will not work, as the receiving vswitch will not have the capability to route the packet to the right VTEP. (113722)

- Port ACLs are not supported on VXLAN terminated traffic. (113726)
- If the configured RACLs do not fit in the TCAM, then disabling the RACL sharing feature might cause removing a RACL from an individual VLAN interface to fail.

To recover from this state, delete/remove the access-list and then reconfigure the access-list. (114028)

- Configuring "hardware access-list resource sharing vlan in" in a config replace session or in config session is not supported (114291)
Series Affected: DCS-7010T and DCS-7050X Series
- L2 flooding of BUM packets on Vxlan vlans uses L3 replication tables, which are also used by IP multicast routing. The replication tables have an entry for each vlan, physical port combination (lag or non lag). We will run out of this table resources if we need more than 64k entries. (114517)
- Toggling "hardware access-list resource sharing vlan in" configuration could cause ACLs that were already programmed on VLAN interfaces to not get programmed. This could traffic loss on the VLANs where the ACLs were originally applied. (115348)
Series Affected: DCS-7010T and DCS-7050X Series
- If the switch is in cut-through mode, L2 MTU violations will not be counted if the packet headers are changed while forwarding. (116760)
- QoS policies are not supported for L3 Unicast flooded packets (routed packets with nexthop MAC not learned) (123883)
- When a PBR is attached to any interface, Layer-3 packets which are getting flooded in the egress VLAN will not be treated with Egress Router ACL if one is configured on that egress VLAN. (133144)
- VXLAN routing is not supported on systems with BCM56750 fabric chips. Such switches can be identified using the CLI command "show platform trident l3 summary", which will show bcm56750 for "Fabric chip model". (134625)
- Mirroring of incoming multicast traffic to a GRE tunnel may result in data traffic loss on the egress interface in an oversubscription scenario. (139591)
- If hardware tables for VLAN translation overflows, the entries need to be un-configured and re-configured after the overflow condition is removed due to appropriate configuration changes. (157196)
- Up to 4 mirroring sessions are supported.

Each direction mirrored on a source port counts towards that limit of 4. For example, if a port is configured with rx and tx mirroring (the default), this counts as 2 consumed sessions. (158490)

- 1) Multicast traffic matching reserved IPv4 multicast address range 224.0.0.X is not counted by L3 interface counters.

- 2) L3 interface counters not supported for IPv6 multicast traffic.
- 3) Unicast traffic to CPU is counted by L3 interface counters only if routing is enabled (i.e. ip routing for IPv4 traffic and ipv6 unicast-routing for IPv6 traffic) (160930)
- Mirroring of Vxlan encapsulated packets in the egress direction is not supported. (167189)
- When a packet that is routed and flooded on the egress vlan is sent to a port in congestion, it will not result in PFC frames being sent on the source port of the packet. (174399)
- "switchport dot1q ethertype" command is disabled. (186577)
- If ingress ACL is applied on an interface, traffic sent to CPU from that interface is falsely counted as InAclDrop in "show int counters ingress acl drop". (203465)
- When "reload fast-boot" is performed from a release prior to 4.17.2, switches with BGP peering connections with the switch undergoing "reload fast-boot" could experience BGP KeepAlive timeouts before they see port flaps. This could result in longer than expected data plane downtime during the upgrade. (214700)
 Series Affected: DCS-7050X, DCS-7060X and DCS-7060X2 Series
- A multi-bit ECC error in forwarding ASIC packet memory cannot be automatically corrected. A hitful restart of the slice agent managing the forwarding ASIC or a reboot of the system is required to clear the condition. (214950)
- If ip-ttl is the only enabled field for port channel hashing, after reload hitless, packets may get hashed to a different link than before the reload. (223568)
 Series Affected: DCS-7050TX, DCS-7050X and DCS-7060X Series
- Sflow output interface determination will not work when the output interface is a subinterface. (250424)
- A switch may not be able to bridge or route VXLAN traffic if it hits one or all of following conditions:
 - Nexthop resources are exhausted as indicated by syslog
 VXLAN_HWHWER_NEXTHOP_RESOURCE_FULL.
 - MAC table overflow as indicated by show platform trident mac-address-table missing.

To recover from this condition reduce the config scale and flap the VXLAN interface. (253601)
- Flexible port-channel hashing may not hash accurately when the inner L4 header option is configured for IPV6 GRE packets. (267487)

- If a packet stream is policed by multiple policers, the policed rate may be lower than any of the configured policer rates. (271046)
- To perform filtered mirroring of a packet based on VLAN from an interface configured to perform VLAN translation, the ACL must be programmed with the translated VLAN. The mirrored packet will be the same as the packet at the source interface. (278599)
- BGP neighbor sessions may flap when URPF is configured on an interface. (279113)
- To perform filtered mirroring of a packet based on VLAN from a subinterface source, the ACL must be programmed with the internal vlan of the subinterface. The mirrored packet will be the same as the packet at the source interface. (280943)
- Matching on inner VLANs is not supported in mirror ACLs. If an entry is specified matching on inner VLAN, it will be ignored and permit all packets. (284371)
- Added a new Cli command 'show platform trident mmu buffers all' to display the buffer usage and percentage utilization. (285602)
- SSU is supported when upgrading from the associated release in each release train: 4.18.8, 4.19.8, 4.20.7, 4.21.0. (289548)
- Issuing "no shutdown" on a member link of port-channel may send duplicate packets for sub-second on that member link (291514)
- DirectFlow (and features such as the MacroSegmentation Service that use DirectFlow) are unsupported on the 7260, 7300 series of switches. (296715)
- When primary vlan and secondary vlan are part of different MST instances, the hardware programming of lag will not happen. (300119)
- Not all interfaces in the groups Ethernet49-Ethernet52 and Ethernet53-Ethernet56 can be broken out in to 4x25G, 4x10G or 2x50G mode due to MAC resource limitation on the system. Interfaces without MAC resource will be marked inactive and 'STRATA-4-HW_PORT_RESOURCE_FULL' will be logged in syslog.

Speed change on interfaces in the groups Ethernet49-Ethernet52 and Ethernet53-Ethernet56, can free up the MAC resources to make inactive interfaces active in that group. (306121)
SKUs Affected: DCS-7050SX3-48YC8-F and DCS-7050SX3-48YC8-R
- When MLAG peer MAC routing is enabled, OSPF neighborship over VXLAN overlay may never get established. (349242)
- Ip-length based rules are not supported on Egress ACLs. (353247)

- Packets dropped in the egress pipeline may still be egress mirrored successfully. (357609)
- Some ports (esp. Et73-Et96 and Et103-Et104) might blackhole traffic or fail to linkup. (358362)
SKUs Affected: DCS-7050TX2-128-F and DCS-7050TX2-128-R
- SSU is not supported with Vxlan and MLAG config. (388669)

CCS-720XP Series

- Systems manufactured until May 2019 may have labels for the console port and management Ethernet port swapped. (386216)
SKUs Affected: CCS-720XP-24ZY4-F and CCS-720XP-48ZC2-F

DCS-7010T Series

- IEEE 1588 PTP transparent clock does not decrement TTL for PTP routed packets (55078)
- Enabling counters for Static or Twice NAT connection can cause FocalPointV2 agent restarts, when the number of connections exceed 275. (109048)

DCS-7060X and DCS-7300 Series

- When in cut-through forwarding mode, mirror sessions with both ingress mirror sources and egress mirror sources configured to mirror packets to the same mirror destination port will not be programmed in hardware.

The workaround for this is to switch to store-and-forward mode where the limitation is not present. (154721)

- Cut-through mode is not supported on the SFP+ interfaces. (182728)
- Cut-through mode is not supported at 1G speed. (219427)

DCS-7260X3 Series

- Configuring 100G, 50G, 40G, 25G and 10G simultaneously might result in unexpected packet forwarding behavior. (235075)

7368 Series

- Multicast replication resources in TH3 are only 10% of their unicast counterparts. Due to this multicast replication in TH3 is limited to 1.2 Tbps. (297317)
- Layer2 source MAC learning may occur on packets received with CRC errors. (325507)

- 802.3X pause is not supported (348758)
- Routed unicast traffic egressing a SVI for which destination MAC is not learnt are sent to CPU and then flooded on the egress VLAN. (368228)

DCS-7050X and DCS-7300 Series

- The mirroring to GRE Tunnel feature does not support sub-interfaces as egress interfaces. (136514)
- Packets sourced from the CPU to be VXLAN encapsulated will not have the right DSCP marking in the outer header based on the global QOS map configuration. (139248)
- Tcam entries used by IPv6 standard access list is not shared across interfaces (159827)
- EOS will fail to detect modules, such as some 100GBASE-DWDM4 modules, that require deassertion Low Power Mode (LPMODE) pin to be de-asserted. (160016)
Series Affected: DCS-7050S and DCS-7050T Series
- In MLAG VTEP configuration, the switch incorrectly drops VXLAN encapsulated packets that are destined to the VTEP IP address with the destination mac as peer switch's bridge MAC address. The workaround is to configure VARP in such scenarios. (173716)
- Multicast traffic destined to boundary or prefix mroutes configured may be forwarded out of order if fabric priority flow control is enabled for the given priority. (185981)
- If an SVI is used as a core interface to reach remote Vteps, any L3 EVPN traffic using that SVI will be dropped if the underlay mac becomes unlearned. A workaround is to configure MAC timeout to a higher value than ARP timeout to ensure macs don't get aged out. (192419)
- During "reload hitless", ECMP traffic flows may get hashed to a different ECMP path than before the reload. (218700)
Series Affected: DCS-7050X Series
- Direct flow on T2+ has the following limitations
 1. Only IP packets can have their source mac , destination mac and vlan changed.
 2. When a packet has its smac, dmac and vlan changed then it can only be forwarded to one interface.
 3. When a packet has its vlan changed it can only be forwarded untagged on access ports.
 4. An output interface must be specified whenever a packet's smac,dmac and/or vlan is changed. (251477)

- SFP+ and QSFP+ interfaces when configured in a Recirc-Channel may erroneously bring the link up on the line side. To work around the issue, either unplug the cable or administratively shutdown the interface on the link partner. (404936)

DCS-7050X2 and DCS-7300 Series

- When IEEE 1588/PTP is configured on interfaces running at 100Mb/s speeds, the master offset and mean path delay calculations are inaccurate due to a limitation in the internal PHY (122816)
- Egress VLAN translation will not work on routed multicast packets when the VLAN to be translated is part of the outgoing interface list. (151093)
- VLAN translation is not supported on vxlan core ports (154309)
Series Affected: DCS-7050X2 Series
- Due to an increase in the number of default entries programmed in the TCAM, 'Out of TCAM entries', might be seen while configuring ACLs. This happens due to the TCAM hardware resources being full. The workaround is to unconfigure any unused feature that requires TCAM resources. (182178)

DCS-7050CX3, DCS-7050SX3 and DCS-7300 Series

- When configuring a DirectFlow action, specifying "interface hardware-loopback" as the destination of "action output" is not supported. (243031)
- IPv6 packets with WESP payload (next header 141) bypass the IPv6 security ACLs and service policies. (243387)
- Cut-through mode is not supported on SFP+ interfaces. (252731)
- Directflow configuration with "set vlan", but no "action set output interface" configured is not supported. (345852)
- NAT is not supported on subinterfaces (353236)
SKUs Affected: 7300X3-32C-LC and 7300X3-48YC4-LC
- NAT is not supported on ECMP interfaces (353704)
SKUs Affected: 7300X3-32C-LC and 7300X3-48YC4-LC
- The following DirectFlow configurations are not supported: match input interface hardware-loopback
action output interface <> (more than one)
action output interface hardware-loopback
action output flood|all
action set cos (355927)

Transceiver Series

- SFP-1G-T transceivers can only advertise one speed at a time. Desired speed and negotiation must be explicitly configured. Recommended commands are:

```
* "speed auto" / "speed auto 1gfull" / "speed auto 1000full" : enable autoneg, advertise only 1G
* "speed auto 100full" : enable autoneg, advertise only 100M
* "speed 100full" : disable autoneg, force speed to 100M (159401)
SKUs Affected: 1000BASE-T
```

- 25G transceivers could suffer signal degradation when using the MAM1Q00A-QSA QSFP-to-SFP adapter.

Use a MAM1Q00A-QSA28 QSFP28-to-SFP28 adapter instead. (253324)

vEOS Router Series

- The /mnt/flash/cloud_ha_config.json based configuration for the CloudHa agent is not supported from this release. If you are upgrading from an older image (< 4.20.5) please reconfigure HA using EOS CLI. Please see information on converting json file based config to CLI commands in the vEOS Router Configuration Guide. (264660)
- While vEOS instances in an AWS cloud can be created using either a Bring Your Own License (BYOL) or Pay As You Go (PAYG) format, there currently is no show command in vEOS to easily help the user or support determine which mode this instance uses. (272649)
- Tx/Rx ring parameters of an "Elastic Network Adapter (ENA)" interface cannot be set through config.json in vEOS. (276382)
- vEOS supports up a maximum of 8 physical cores. With hyperthreading enabled it is 16 vCPUs (278286)
- In dpdk based vEOS(MODE=sfe in /mnt/flash/veos-config), SR-IOV mode doesn't work with Intel x520/82599 on ESXi. As a workaround use mixed mode instead of the SRIOV only mode in ESXi (296718)
- Hot detaching network interface instances is unsupported. Reboot the instance after deattching a network interface. (306132)

DCS-7160 Series

- If there is a port ACL (PACL) or router ACL (RACL) that matches on L4 information for TCP/UDP/ICMP, and if the incoming packet has IP options, then those packets are dropped. (172932)

- No support for matching on DSCP field on IP packets for security ACLs. (174114)
- If the MAC address of the next-hop to reach a remote VTEP is not learned, and if the remote VTEP is configured for Head End Replication (HER) for a VXLAN VLAN, then, the the VTEP is not included in the list of HER VTEPs and no VXLAN BUM packets will be sent to that VTEP. The VTEP is included in the list of HER VTEPs once the underlay MAC address of the next-hop to reach that VTEP is learned.

The workaround is to ensure that the underlay MAC of the next-hop to reach remote VTEPs are always present (which is the normal operation). (178395)

- Control plane Policy Map counters are not supported. (180303)
- A maximum of 3840 remote VTEPS are supported when the switch is configured as a Vxlan Vtep. (188553)
- The IGP IS-IS protocol is not supported in overlay VXLAN networks. (216353)
- Customer may witness around 100 mililiseconds of packet loss when VxLAN ECMP nexthop changes. (219888)
- The DSCP value of BGP control plane packets set by the command 'bgp transport qos dscp <value>' is overwritten when 'qos rewrite dscp' is enabled and the outgoing routed interface is a SVI. The rewritten value is based on traffic-class to DSCP map configuration. (288617)

Conditions and Impacts

The release notes listed above use shorthand terminology to refer to conditions that arise frequently in connection with bugs. This section explains each condition and its impact in more detail.

Condition: Rib agent restart

Impact: When the Rib agent goes down, all routing sessions are terminated; all BGP sessions drop, all OSPF adjacencies are lost, and neighbors stop forwarding traffic to us. When the Rib agent restarts, adjacencies are re-formed, and, after protocol convergence, traffic flows through us again. In most cases where there is adequate network-level redundancy, application-visible impact should be minimal

Condition: Rib agent hang

Impact: When the Rib agent hangs, routing protocols stop running. Routing peers will generally time out their session with the hung Rib agent, withdrawing routes accordingly. Meanwhile, the device continues to forward packets based on existing

routing state. During this time, the device will not respond to routing topology changes. After a heartbeat timer expires (typically 10 minutes), the Rib agent restarts. In networks with sufficient redundancy, application impact of a Rib agent hang is usually low, because there is no data path disruption. However, in conjunction with other network changes (such as link failure or introduction), routing loops may occur.

Condition: kernel crash

Impact: A kernel crash has impact similar to issuing the "reload now" command. All links go down and all forwarding stops. Then, the system reloads, which may take up to 15 minutes. In a network with adequate redundancy, there should be minimal traffic loss associated with this period. After reload, links come up and protocols (LACP, STP, BGP, etc) reconverge. Protocol reconvergence is not necessarily hitless, depending on topology and configuration. For example, a switch may advertise a prefix to a connected subnet before STP has converged. However, any associated outage should be short lived, typically lasting around 30 seconds. The MLAG-SSO feature can dramatically reduce the window of disruption.

Condition: forwarding agent restart

Impact: A forwarding agent restart typically results in the switch ASIC being reset. It clears packet memory, dropping all packets currently in the switch, and causes all links to go down. The restart can take up to 45 seconds, during which time all links are down. Once the restart completes, all links come back up automatically, followed by protocol reconvergence (MLAG, LACP, STP, BGP/OSPF/IS-IS, etc). Depending on which protocols and options are in use, the reconvergence may take a few seconds up through several minutes. On modular switches, the impact of forwarding agent restart is limited to the affected line card; that is, if the forwarding agent for line card 3 restarts, then all ports on line card 3 bounce and protocols on those ports reconverge, but ports on other line cards are unaffected.