



---

## Numerics

32-port switching modules

See switching modules

---

## A

administrator password, recovering [2-30](#)

---

## B

BB\_credits [6-3](#)

best practices

CFS [5-2](#)

domains [7-2](#)

FSPF [7-3](#)

hardware [3-2](#)

IVR [8-1](#)

licenses [4-3](#)

ports [6-2](#)

software installation [2-2](#)

upgrading [2-2](#)

VSANs [7-1](#)

zones [9-1](#)

BIOS [2-13](#)

bootflash

recovering corrupted [2-13 to 2-14](#)

recovery from loader [2-15](#)

recovery using BIOS setup (procedure) [2-15](#)

recovery with dual supervisors [2-21](#)

border switch fails [8-11](#)

buffer-to-buffer credits

See BB\_credits

---

## C

CFS

best practices [5-2](#)

checking distribution status [5-9](#)

checking the configuration [5-3, 5-4](#)

lock failure [5-7](#)

merge failure [5-6](#)

overview [5-1](#)

partitioned fabrics [5-3, 5-5](#)

troubleshooting checklist [5-3](#)

verifying with CLI (procedure) [5-4](#)

verifying with Fabric Manager (procedure) [5-3](#)

Cisco Fabric Services. See CFS

CLI

common troubleshooting commands [1-4](#)

debug commands [B-2](#)

clock modules [3-13](#)

connectivity

basic [1-4](#)

end-to-end [1-5](#)

ports [1-6](#)

using Device Manager [1-6](#)

using Fabric Manager [B-13](#)

verifying [B-13](#)

core dumps [A-5](#)

customer support, collecting information [A-2](#)

---

## D

domains

best practices [7-2](#)

domain ID failure [6-4](#)

## ***Send documentation comments to [mdsfeedback-doc@cisco.com](mailto:mdsfeedback-doc@cisco.com)***

domainID overlap [7-19](#)  
 domain manager disabled [6-4](#)  
 isolation due to overlap [6-4](#)  
 switch isolated [7-19](#)

### DPVM

autolearn not working [7-14](#)  
 cannot be configured [7-14](#)  
 cannot copy active database to config database [7-17](#)  
 config database not activating [7-16](#)  
 database not distributed [7-14](#)  
 guidelines [7-12](#)  
 merge failed [7-17](#)  
 no autolearn entries [7-15](#)  
 port suspended [7-17](#)  
 port VSAN not in database [7-16](#)  
 troubleshooting with CLI [7-13](#)  
 troubleshooting with Fabric Manager [7-13](#)

---

## **E**

### E ports

32-port guidelines [6-2](#)  
 isolation [6-4](#)

---

## **F**

### Fabric Analyzer [B-23](#)

#### fabric configuration

analyzing with Fabric Manager [B-14](#)  
 status [1-5](#)

#### Fabric Manager

checking in Fabric Manager Server license [4-10](#)  
 map layout [12-2](#)  
 problems [12-1](#)  
 recommended JRE version (table) [2-4](#)  
 troubleshooting tools [1-3](#)  
 using over FCIP [12-3](#)  
 using with multiple NICs [12-3](#)

using with proxy server [12-4](#)  
 will not start [2-5](#)

#### fans

LED is red [3-9](#)  
 not spinning [3-9](#)

FC ID, changes after link reset [2-32](#)

#### FCIP

link down [2-31](#)  
 one-to-three tunnels [10-16](#)  
 reload causes reboot [2-31](#)  
 special frame configuration [10-26](#)  
 troubleshooting [10-5](#)

#### FC-MAC driver

See ports

FC ping [B-5](#)

#### FC timer

resolving with CLI [7-11](#)  
 resolving with Fabric Manager [7-11](#)

FC trace [B-5](#)

#### FSPF

best practices [7-3](#)  
 mismatched dead interval [7-31](#)  
 mismatched retransmit interval [7-30](#)  
 region mismatch [7-32](#)  
 traffic not being routed [7-27](#)  
 troubleshooting [7-24](#)  
 wrong hello interval [7-28](#)

Fx ports, 32-port default [6-2](#)

---

## **G**

### grace period

See licenses

---

## **H**

### hardware

best practices [3-2](#)

***Send documentation comments to [mdsfeedback-doc@cisco.com](mailto:mdsfeedback-doc@cisco.com)***

overview [3-1](#)  
 startup issues [3-3](#)  
 troubleshooting [3-14](#)

## I

IKE  
 debugging [11-11](#)  
 overview [xx, 11-1](#)  
 verifying configuration compatibility [11-2](#)

images  
 See software

IPsec  
 clearing SAs [11-11](#)  
 overview [11-1](#)  
 SAs [11-8](#)  
 SPD compatibility [11-4](#)  
 statistics [11-11](#)  
 troubleshooting [11-1](#)  
 verifying configuration [11-3](#)

IP security. See IPsec

IP services  
 troubleshooting [10-2](#)  
 verifying static routes [10-4](#)

iSCSI  
 RADIUS [10-34](#)  
 target discovery [B-17](#)  
 TCP [10-44](#)  
 troubleshooting authentication [10-32](#)  
 troubleshooting dynamic configuration [10-37](#)  
 username and passwords [10-33](#)

IVR [8-11](#)  
 best practices [8-1](#)  
 border switches [8-3](#)  
 cannot enable [8-8](#)  
 CFS merge failed [8-14](#)  
 IVR Wizard [8-14](#)  
 licenses [8-7](#)  
 link isolated [8-12](#)

locked CFS session [8-13](#)  
 LUN [8-13](#)  
 NAT fails [8-8](#)  
 no write access [8-13](#)  
 overview [8-1](#)  
 persistent FC IDs [8-12](#)  
 release-specific support (table) [8-6](#)  
 traffic blocked [8-11](#)  
 transit VSANs [8-2](#)  
 troubleshooting checklist [8-3](#)  
 verifying with CLI [8-4](#)  
 verifying with Fabric Manager [8-3](#)  
 zone set activation fails [8-10](#)

## K

kickstart images, recovery [2-19](#)

## L

licenses  
 best practices [4-3](#)  
 checking in Fabric Manager Server license [4-10](#)  
 displaying with CLI [4-4](#)  
 displaying with Fabric Manager [4-4](#)  
 displaying with Fabric Manager Web Services [4-4](#)  
 feature-based [4-1](#)  
 grace period [4-2](#)  
 grace period expiration [4-9](#)  
 incorrect number installed [4-8](#)  
 initial checklist [4-4](#)  
 missing [4-11](#)  
 module-based [4-1](#)  
 one-click install fails [4-7](#)  
 serial numbers [4-1](#)  
 transfer between switches [4-8](#)  
 unexpected grace period warnings. [4-8](#)

lock failure

***Send documentation comments to [mdsfeedback-doc@cisco.com](mailto:mdsfeedback-doc@cisco.com)***

See CFS  
logs [1-12](#)  
Device Manager [1-13](#)

---

## M

merge failure  
See CFS  
modules  
initialization [3-23](#)  
not detected by supervisor [3-37](#)  
powered down [3-27](#)  
reinitialize using CLI [3-39](#)  
reinitialize using Fabric Manager (procedure) [3-38](#)  
reloaded [3-33](#)  
resets [3-39](#)  
troubleshooting [3-22](#)  
troubleshooting (procedure) [3-26](#)  
unknown state [3-35](#)

initializing state [6-15](#)  
isolation after zone merge [6-27](#)  
link-failure state [6-13](#)  
link initialization flow [6-22](#)  
overview [6-1](#)  
Port Manager [6-5](#)  
restrictions [6-5](#)  
suspended [7-17](#)  
troubleshooting checklist [6-2](#)  
troubleshooting with CLI [6-9](#)  
troubleshooting with Device Manager [6-6](#)  
power supplies  
Fan ok LED is red [3-7](#)  
LED is red [3-6](#)  
LEDs off [3-5](#)  
output failed LED on [3-7](#)  
troubleshooting [3-8](#)  
processes, monitoring [B-7](#)  
process resets [2-24](#)

---

## P

PAA [B-22](#)  
Port Analyzer Adapter  
See PAA  
Port Manager  
See ports  
ports  
best practices [6-2](#)  
bounce between initializing and offline [6-25](#)  
cycles through up and down states [6-29](#)  
DPVM membership not in database [7-16](#)  
ELP issues [6-25](#)  
error disabled [6-30](#)  
FC-MAC CLI commands [6-10](#)  
FC-MAC driver [6-5](#)  
flapping [6-20](#)  
Fx failure [6-32](#)

---

## R

RADIUS [B-19](#)  
related documentation [xxi](#)  
related documents [xxi](#)  
RMON [B-15](#)  
roles, admin [2-31](#)

---

## S

SAN registration [1-5](#)  
security associations  
See SAs  
security policy databases  
See SPDs  
serial numbers [4-1](#)  
finding with CLI [4-7](#)  
finding with Fabric Manager [4-7](#)

**Send documentation comments to [mdsfeedback-doc@cisco.com](mailto:mdsfeedback-doc@cisco.com)**

SNMP [B-17](#)

software

core dumps [A-5](#)

corrupt image [2-14](#)

disruptive upgrades [2-4](#)

error state [2-14](#)

incompatibility [2-6](#)

installation best practices [2-2](#)

install error [2-8](#)

overview [2-1](#)

power on or reboot fails [2-13](#)

recognizing errors [2-24](#)

recoverable restart [2-25](#)

resets [2-24](#)

unrecoverable restart [2-29](#)

upgrading best practices [2-2](#)

verifying installation [2-5](#)

Software Installation Wizard (procedure) [2-9](#)

supervisors

active reboots [3-16](#)

standby in powered-up state [3-20](#)

standby not recognized [3-18](#)

troubleshooting [3-15](#)

switch health analysis [B-13](#)

switching modules [6-2](#)

syslog

See system messages

system health failure [2-30](#)

system messages

overview [1-9, B-19](#)

using CLI [1-11](#)

using Fabric Manager [1-10](#)

viewing from Device Manager [1-13](#)

---

## T

temperature violations [3-12](#)

Threshold Manager [B-15](#)

traceroute

See FC trace

troubleshooting

common CLI commands [1-4](#)

common Fabric Manager tools [1-3](#)

domain ID conflicts [7-18](#)

FCIP connections [10-5](#)

flowchart [1-8](#)

FSPF issues [7-23](#)

hardware problems [3-14](#)

IP services [10-2](#)

iSCSI issues [10-31](#)

modules [3-22](#)

overview [1-3](#)

power supplies [3-8](#)

switching and services modules [3-21, 3-26](#)

symptoms [1-8](#)

VSAN isolation [7-9](#)

---

## V

VSANs

best practices [7-1](#)

host cannot communicate with storage [7-5](#)

interop modes [7-11](#)

mismatches [6-4](#)

switch isolated [7-19](#)

xE port isolated [7-7](#)

---

## W

WWNs, suspended connections [6-4](#)

---

## Z

zones

best practices [9-1](#)

cannot configure enhanced zoning [9-23](#)

database distribution [9-12](#)

***Send documentation comments to [mdsfeedback-doc@cisco.com](mailto:mdsfeedback-doc@cisco.com)***

enhanced [9-23](#)  
enhanced zoning lock issues [9-24](#)  
host cannot communicate with storage [9-5](#)  
link isolation [9-16](#)  
merge failure [6-4, 9-14](#)  
merging [B-14](#)  
mismatched active zone sets [9-18](#)  
mismatched default zone policy [9-13](#)  
port isolation [6-27](#)  
troubleshooting checklist [9-2](#)  
troubleshooting with CLI [9-3](#)  
troubleshooting with Fabric Manager [9-2](#)  
zone set activation [9-9](#)