

LOGZILLA DOCUMENTATION

Dell N Series

LogZilla App Store application: Dell N Series

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Overview

LogZilla app for Dell EMC Networking N-Series switches running DNOS 6.x firmware. Covers N1100-ON, N1500, N2000, N2200, N3000, N3200, and N4000 series. Parses both the DNOS native (FASTPATH) log format and the Cisco IOS-compatible format that Dell N-Series switches emit for link, STP, LLDP, and port events.

App Function

Parses Dell N-Series switch logs and extracts:

- Interface state changes (link up/down, line protocol up/down)
- Spanning Tree topology changes and BPDU errors
- LLDP neighbor discovery events
- FDB MAC address movement events
- Port error frame notifications
- OSPF routing protocol errors
- SupportAssist connection events

Provides per-Event-Class dashboards for network and system monitoring, plus triggers for interface flapping, STP storms, MAC move storms, and OSPF failures.

Vendor Documentation

- [Dell N-Series CLI Reference](https://www.dell.com/support/home/en-us/products/networking) (https://www.dell.com/support/home/en-us/products/networking)
- [Dell N-Series User Guide \(DNOS 6.7\)](https://www.dell.com/support/manuals/en-us/networking) (https://www.dell.com/support/manuals/en-us/networking)

Prerequisites

LogZilla Dedicated Port

Dell N-Series switches emit Cisco IOS-format syslog messages (%LINK-3-UPDOWN, %SPANTREE-5-TOPOTRAP, etc.) that are indistinguishable from actual Cisco devices. A dedicated port is required to route these events to the Dell parser instead of the Cisco parser.

Navigate to **Settings > System > Application Ports**

Set **Dell N-Series syslog port** to a dedicated port (e.g., 5523)

Click **Save**

Both TCP and UDP listeners are enabled on the configured port.

Dell Switch Configuration

Configure each Dell N-Series switch to send syslog to the dedicated port:

Access the switch CLI via console or SSH

Enter configuration mode:

```
enable
configure
```

Configure syslog server with the dedicated port:

```
logging host <LogZilla-IP> port 5523
logging buffered informational
```

Save configuration:

```
write memory
```

Verification

Generate a link event by toggling an interface, then verify events appear in LogZilla with `Vendor` tag set to `Dell`.

Incoming Log Format

Dell N-Series switches generate syslog in two formats.

DNOS Native Format (FASTPATH)

```
taskName]: source_file.c(line) seqnum %% SEVERITY MESSAGE_TYPE: details
```

Cisco IOS-Compatible Format

```
*Mon DD HH:MM:SS: %FACILITY-SEV-MNEMONIC: message
```

Parsed Metadata Fields

Tag Name	Type	Description	Example
Vendor	Constant	Device vendor	Dell
Product	Constant	Product line	N-Series Switch
Event Class	Taxonomy	Event classification	Network, System
Event Type	Taxonomy	Event type	Interface, Topology, Routing, Service
Interface	Cross-vendor	Network interface name	GigabitEthernet 1/0
VLAN	Cross-vendor	VLAN identifier	Vlan200
Action	Cross-vendor	Event action	Up, Down, MAC Move, Topology Change
SrcMAC	Cross-vendor	Source MAC address	0A:5A:45:21:82:DA
MitreId	Cross-vendor	MITRE ATT&CK technique	T1557
Dell Mnemonic	Dell-specific	Facility-severity-mnemonic	LINK-3-UPDOWN
Dell MAC Move	Dell-specific	MAC move port path	Te2/0/27 -> Te2/0/28
Dell STP Error	Dell-specific	STP error description	Invalid Forward Delay

High-Cardinality Tags

The following tags are excluded from indexing due to high cardinality:

- **SrcMAC** - MAC addresses from FDB events
- **Interface** - Network interface names across switch ports
- **Dell MAC Move** - Port path combinations from MAC move events

Log Examples

FDB MAC Move (DNOS)

```
dtlAddrTask]: fdb.c(685) 981153 %% INFO MAC_MOVE: Mac 0A:5A:45:21:82:DA in VLAN: 200 is overwritten
from entryType 1 to 1 and port Te2/0/27 to Te2/0/28
```

STP BPDU Error (DNOS)

```
hapiRxTask]: dot1s_txx.c(1236) 54878005 %% NOTE dot1sBpduReceive(): Invalid Forward Delay.
```

Interface Down (Cisco IOS)

```
*Mar 6 14:22:50: %LINK-3-UPDOWN: Interface GigabitEthernet 1/0, changed state to down.
```

Topology Change (Cisco IOS)

```
*Mar 6 15:01:22: %SPANTREE-5-TOPOTRAP: Topology Change Trap.
```

LLDP Neighbor (Cisco IOS)

```
*Mar 6 15:10:05: %LLDP-5-CREATEREM: Port GigabitEthernet 1/28 created one new neighbor, Chassis ID
is Mikrotik1, Port ID is ether1.
```

OSPF Error (DNOS Short)

```
OSPF4-3: % [_ospf_snmp_ext_process_entry_read] Get ospf proc failed
```

Dashboards

Dell N-Series Network

- Interface up/down event tracking

- STP topology change monitoring
- MAC move path distribution
- OSPF routing error tracking
- VLAN activity distribution
- Top switches by event volume

Dell N-Series System

- SupportAssist connection monitoring
- System event timeline
- Top switches by system event volume

Triggers

Dell N-Series Interface Down

Alerts when switch interfaces go down. Throttled per interface.

Dell N-Series STP Topology Storm

Alerts on excessive STP events indicating potential network loop.

Dell N-Series MAC Move Storm

Alerts on excessive MAC moves indicating potential AiTM attack or misconfiguration. Maps to MITRE T1557.

Dell N-Series OSPF Error

Alerts on OSPF routing protocol failures. Throttled per switch.