

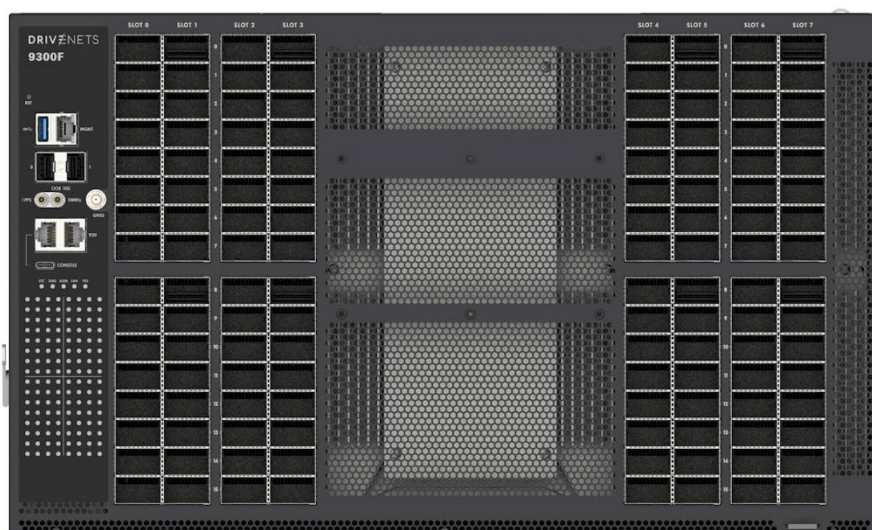
Fabric

102.4 Tbps

DriveNets 9300F (NCF-128E)

FSE Fabric Node

The DriveNets DN-9300F is a high-performance Network Cloud Fabric (NCF) platform built on a dual-ASIC Broadcom Ramon3 architecture with $128 \times$ OSFP 800G ports. Delivering an aggregate 102.4 Tbps (2x Ramon3) of cell-based switching, it eliminates Ethernet overhead and evenly distributes traffic across all fabric links to achieve deterministic, low-latency performance. The DN-9300F enables operators to build a highly efficient and scalable Fabric-Scheduled Ethernet (FSE) cluster when coupled with ASA926-18XKE, ASA926-18XKA, DN-5300R, or DN-5301R Network Cloud Packet Forwarders (NCPs). This architecture supports AI/ML workloads at scale, interconnecting up to 32K GPUs within a unified cluster fabric. Designed for long-term adaptability, the DN-9300F supports both 400G and 800G operation through software upgrades, reducing total cost of ownership while providing investment protection and operational flexibility.



Key Features

General

- Self-routing fabric with dynamic load balancing
- Single or multi-stage (three-stage) topology
- Scales to 2K NCPs in one system
- Destination and source-based cell switching
- 1588v2 PTP Class C

Security

- Platform Firmware Resilience (PFR)

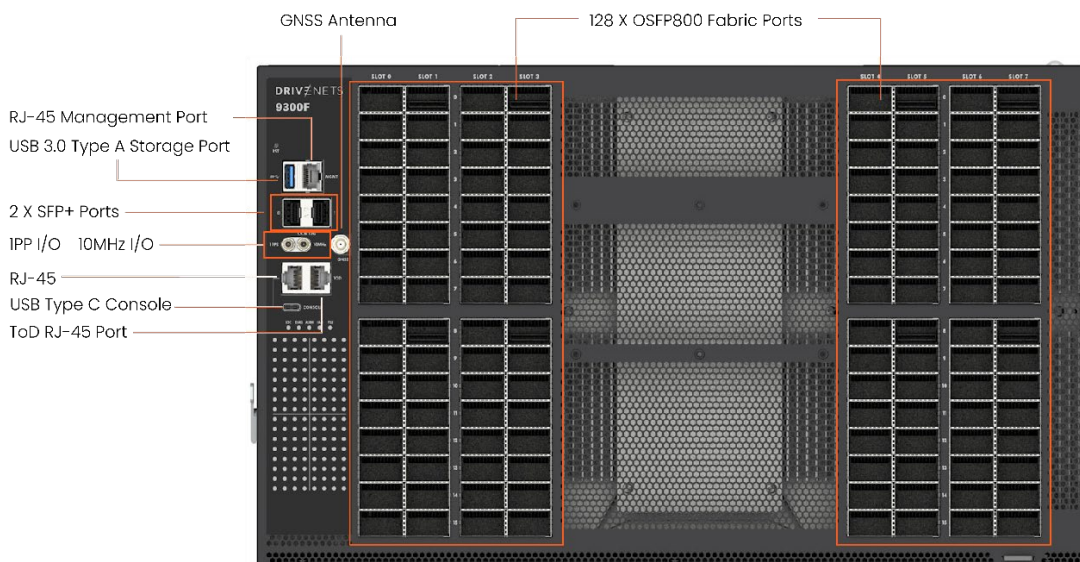
Management

- BMC for remote monitoring and system control

Power and Cooling

- 2 + 1 redundant hot-pluggable PSUs
- 7 + 1 redundant hot-swappable fans

Overview



Hardware Specification

Ports

- Fixed Service Ports:
128 × OSFP 800G ports
- Management Ports on Port Side:
1 × RJ-45 serial console
1 × USB Type-C serial console
1 × RJ-45 100/1000BASE-T management
2 × SFP+ ports for SDN management
1 × USB 3.0 Type-A storage port
1 × Reset button
- Clocking and Timing Ports:
1 x IPPS I/O DIN

1 x 10MHz I/O DIN
1 x TOD port
1 x GNSS antenna

Key Components

- 2 x Switch Silicon: Broadcom Ramon3 BCM88920
- BMC ASIC: AST2600
- PFR ASIC: AST1060
- CPU Modules:
Intel COMe module Ice Lake-D D-1713NT 4C
or D-1734NT 8C (optional)

- Memory: 32GB DDR4 (2 x 16GB) with ECC
- Storage: NVMe 240G M.2 SSD or 480G (optional)

Performance

- Cell-based Switch: 2 x 51.2 Tbps throughput
- Cell Switching Performance: 2 x 21.6B cells/sec

Physical and Environmental

- Dimensions (HxWxD): 263 mm (H) × 440 mm (W) × 668.2 mm (D)
- Weight: 63 kg
- Fans: Hot-swappable 7 + 1 redundant fans
- Operating Temperature: 0°C to 40°C (32°F to 104°F)
- Storage Temperature: -40°C to 70°C (-40°F to 158°F)
- Operating Humidity: 5% to 85% (RH), noncondensing

LEDs

- OSFP Fabric Port LEDs: Link Status, Activity, Rate
- Ethernet Management Port LED: Link Status, Activity
- System LEDs: Diagnostic, Locator, Alarm, PSU, and Fan Status

Power

- PSUs: 2 + 1 redundant, load-sharing, hot-swappable VAC/VDC
- Input Voltage: 200-240 VAC; -48 to -60 VDC
- Power Consumption:
Typical 1113 W (w/o optics)
Maximum 4352 W (with 800G 14 W optics)

Regulatory Compliance

- EMI:
CE Mark
EN55032 Class A EN55024/35
EN 301 489-1 / EN 301 489-19 / EN 303413
- FCC Part 15 Subpart B Class A EN 300 386
Safety:
UL 62368-1 Ed.3 / UL 60960
IEC/EN 60950-1 / IEC/EN 62368-1 Ed.3
- Environmental Compliance:
Storage: ETSI 300 019-2-1 Class T1.2
Transportation: ETSI 300 019-2-2 Class T2.3
Vibration: ETS EN 300 019-2-3 Class 3.2/ IEC 60068-2-64
Operating Bump Test : ETS EN 300 019-2-3 Class 3.2/IEC60068-2-27
Acoustic Noise: ETS 300753
RoHS-6 Compliance