The Pluribus Freedom™ 9372-X switch is a best-in-class, programmable open network switch that provides standards-based networking to meet the stringent requirements of high-performance enterprise and cloud data centers. Built on the deployment-proven Broadcom StrataXGS® Trident 2+ switching ASIC, the Pluribus Freedom 9372-X switch is optimized to deliver the advanced networking and service capabilities of the Pluribus Netvisor® ONE Operating System (OS). The Pluribus Freedom 9372-X switch is Open Compute Project (OCP) compliant, and is built with the Open Network Install Environment (ONIE) to support any compatible network operating system for maximum flexibility and adaptability to meet future networking requirements.

The Pluribus Freedom 9372-X switch delivers wire-speed Layer 2 and Layer 3 switching and routing with sustained packet forwarding performance of 1.44 terabit per second (Tbps) full-duplex and 1 billion packets per second (Bpps) throughput with all network services enabled. The Pluribus Freedom 9372-X switch provides 48 x 10GbE ports and 6 x 40 GbE uplinks. The switch can be deployed either as a Top-of-Rack switch, or as part of a 10GbE or 40GbE distributed spine, forming a non-blocking folded-Clos data center fabric.

The platform is built for high availability environments with redundant and hot-swappable power and fan units. The switch is highly power efficient and offer airflow flexibility to support hot or cold aisle deployments. The compact design of the Pluribus Freedom 9372-X switch minimizes its deployment footprint, requires less power and lowers cooling requirements, which reduce the cost of network operations.
System Highlights

• Wire-speed Layer 2 and Layer 3 forwarding up to 1.44Tbps full duplex and 1 Bpps
• 48 x SFP+ switch ports, supporting 10GbE (DAC, 10GBASE-SR/LR) or 1GbE (1000BASE-T/SX/LX)
• 6 x 40 QSFP switch ports, each supporting 40GbE (DAC, 40GBASE-SR4/LR4) or 4 x 10GbE (DAC or fiber breakout cable)
• Port Grouping to group 4 x 10G ports into one 40G port at the physical layer for maximum bandwidth utilization, and for 300m optical reach over MMF (Subject to NOS options)
• Broadcom Trident2+ switching ASIC
• Intel Atom C2538 quad-core 2.4GHz x86 processor
• VXLAN services supported in hardware at wire speed
• 16 MB integrated packet buffer
• All ports on front; PSUs and fans accessible from rear
• Hot-swappable, load sharing, redundant AC or -48 VDC PSUs. 12 VDC power input option.
• 5+1 redundant, hot-swappable fan modules
• Configurable hot/cold-swappable fan modules
• Configurable hot/cold airflow with port-to-power and power-to-port airflow
• 1RU compact form factor mountable in either a standard 19” or 21” rack

Adaptive Cloud Fabric
The Pluribus Adaptive Cloud Fabric (ACF) empowers organizations to speed up their transition to a completely automated network that supports software defined data center and cloud automation principles with a simpler non disruptive and more transparent architecture that makes it easier to deliver, manage and secure service delivery. The ACF can be deployed across a single data center, or geographically distributed to seamlessly interconnect multiple of data centers or aggregate the campus edge over existing core WAN infrastructure.

Netvisor ONE Operating System
Enabling simple, plug-and-play deployments, the Pluribus Freedom 9372-X switch is delivered as an integrated, turnkey solution that is shipped pre-configured with the Pluribus Netvisor ONE OS installed on the Open Network Install Environment foundation. Pluribus Netvisor ONE is a virtualized network operating system (NOS) that provides a best-in-class Layer 2 and Layer 3 networking foundation and optionally licensed advanced network services such as VXLAN, the distributed Adaptive Cloud Fabric™ architecture and embedded network performance monitoring telemetry.

Netvisor ONE Licensing Options

• Netvisor Enterprise — Included with the switch. It supports Layer 2 and Layer 3 switching and routing functionality with all standard networking protocols and high-availability features.
• Netvisor Fabric — It adds VXLAN, telemetry, Adaptive Cloud Fabric and security and segmentation capabilities (not included with the switch).
• vNET License — It supports multi-tenant and network/traffic segmentation requirements. Licensed one per switch. vNET Manager capabilities require Virtual Netvisor (vNV) to be deployed (not included with the switch).
• VirtualWire+™ License — It includes Fabric license and enables VirtualWire capabilities (not included with the switch).
• VirtualWire™ License — It enables VirtualWire capabilities in standalone L1 VirtualWire mode (not included with the switch).

Warranty
The Pluribus Netvisor® ONE OS and Pluribus Freedom™ Open Networking Switches are backed by a 90-Day limited warranty and access to technical support. Pluribus FreedomCare™ extended support options provide for extended support coverage, which includes advanced Product replacements, software updates and upgrades and access to 24x7 technical support. Contact Pluribus Networks or a Pluribus Networks authorized reseller for details on advanced support options.
## Specifications

**Pluribus Freedom 9372-X Switch**

### Switching Engine
- Broadcom BCM56864 Trident2+ 720

### Onboard CPU
- Intel Atom C2538 quad-core 2.4GHz x86 processor
- 8 GB SO-DIMM DDR3 RAM with ECC
- 16 MB SPI
- 32GB mSATA

### Physical and Environmental
- Dimensions (WxDxH): 44.3 x 47.3 x 4.34 cm (17.4 x 18.6 x 1.71 in)
- Weight: 8.95 kg (19.73 lb.), with two installed PSU modules
- Fans: hot-swappable 4+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 95% non-condensing

### Software
- Switch is loaded with Open Network Environment Install Environment (ONIE) software installer
- Pluribus Netvisor ONE OS - based upon options ordered

### Interface Ports

#### Network Interfaces
- 48 x SFP+ each supporting 10GbE or 1GbE
- 6 x QSFP each supporting 40GbE or 4 x 10GbE

#### Management Ports
- 1 x RJ-45 serial console
- 1 x RJ-45 100/1000BASE-T management
- 1 x USB Type A storage port

### Performance
- Switching Capacity: 1.44 Tbps full duplex
- Forwarding Rate: 1 Bpps
- Jumbo frames support up to 9398 Bytes
- Packet Buffer Size: 16 MB integrated packet buffer

### Hardware Capacity
- Please refer to the Pluribus Netvisor® ONE OS data sheet

### Operational
- PSUs: 2 redundant, load-sharing, hot-swappable AC or -48 VDC
  - Input Voltage: 90 to 264 VAC at 50-60 Hz. -48 to -72 VDC
  - Input Current: Max 6 A@100/120 VAC, 3 A@ 200/240 VAC, 10 A@ -72 VDC
  - PSU Efficiency: Up to 93% for AC PSUs
  - Power input option: 12 VDC
  - Max Power: 282 Watts
  - Typical Power: 224 Watts

### LEDs
- 10G SFP+ Port LEDs: Link Speed, Link Status, Activity
- 40G QSFP Port LEDs: Link Status, Activity for 40G status
- 40G QSFP Breakout LEDs: set of 24 LEDs, 4 per QSFP port, show Link, Status, Activity 10G links with 4 x 10G breakout
- Ethernet Management Port LED: Link Status, Activity
- Console Port LED: Link Status
- System LEDs: PSU1, PSU2, Diagnostic, Fans, Locator

### Regulatory

#### EMI
- CE Mark (EN55032 Class A)
- FCC Part 15 Class A
- VCCI

#### Safety
- CB, EN 62368
- UL

#### Environmental
- Temperature: IEC 68-2-14
- Drop: ISTA 2A
- Vibration: IEC 68-2-36, IEC 68-2-6
- Shock: IEC 68-2-29
- Acoustic Noise Level: Target at under 60 dB in 40°C

### RoHS-6 Compliant