Cisco N9164E-NS4-O Powered by NVIDIA Spectrum Silicon

1. What is the Cisco N9100 switch and why is it significant?

The Cisco N9100 is a 2RU 64-port 800G OSFP high-performance AI networking switch, powered by NVIDIA Spectrum-X Ethernet switch silicon. It is purpose-built for Ethernet-based AI-scale deployments, delivering industry-leading bandwidth, low latency, and lossless Ethernet fabrics. The Cisco N9100 accelerates AI adoption and simplifies operations for enterprise, neocloud, neoclouds and sovereign clouds.

What sets the Cisco N9100 apart in the market?

The Cisco N9100 is the only other switching platform besides the NVIDIA Spectrum-X Ethernet platforms to achieve NCP Reference Architecture (RA) compliance for NVIDIA Spectrum-X solution. It supports both Cisco NX-OS and SONiC operating systems, unified under Cisco Nexus Dashboard management. This provides unmatched flexibility and simplifies modernization of existing data centers as part of the NVIDIA Spectrum-X Ethernet switch system.

2. How does the Cisco N9100 optimize AI workload performance?

As part of the NVIDIA Spectrum-X Ethernet switch system, the Cisco N9100 offers 51.2 Tbps switching capacity—supporting up to 128x400G or 64x800G ports—and adaptive routing for real-time network optimization. This ensures that AI workloads operate efficiently at scale, making the Cisco N9100 ideal for large AI clusters and high-performance backend networks.

3. What are the key benefits for Cisco customers?

- **Scalability:** Supports large-scale AI clusters with lossless Ethernet fabrics.
- **Flexibility:** Cisco offers diverse silicon options, including Cisco Silicon One, Cloud Scale, and NVIDIA Spectrum-X Ethernet switch silicon, for tailored solutions.
- **Operating System Choice:** Supports both integrated Cisco NX-OS and robust SONiC OS.
- **Unified Operations:** Managed centrally through Cisco Nexus Dashboard for simplified operations.
- **Security:** Protect your network with Live Protect on Cisco Nexus switches and NX-OS, ensuring security and reliability.

4. Who should consider the Cisco N9100 switch?

- **Neocloud Providers:** Needing to efficiently scale high-performance AI clusters.
- **Sovereign Clouds:** Requiring strict data sovereignty and security compliance.
- **NCP RA Compliance:** Cisco Cloud Reference Architecture (CRA) with NVIDIA Spectrum-X Ethernet switch silicon Cisco N9100 is NCP RA compliant for Cisco NX-OS or SONiC with Cisco NX-OS or SONiC.

5. How does the Cisco N9100 integrate with existing Cisco solutions?

The Cisco N9100 integrates seamlessly into the Cisco Nexus operational model, supporting both Cisco NX-OS and SONiC. It works alongside Cisco Silicon One and cloud scale-based switches, ensuring consistent architecture and operations across diverse deployment scenarios. Centralized management through Cisco Nexus Dashboard ensures smooth integration into existing infrastructures.

6. What are the software license requirements for the Cisco N9100 switch?

The Cisco N9100 switch will support the same three license tiers – Essentials, Advantage, and Premier that are supported on other Cisco Nexus 9000 Series switches.

7. When would the Cisco N9100 switch be orderable?

The Cisco N9100 switch will be orderable in November 2025 and is expected to start shipping in April 2026