



Configuration Overview

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Overview of the Cisco Nexus® 3550-T Switches

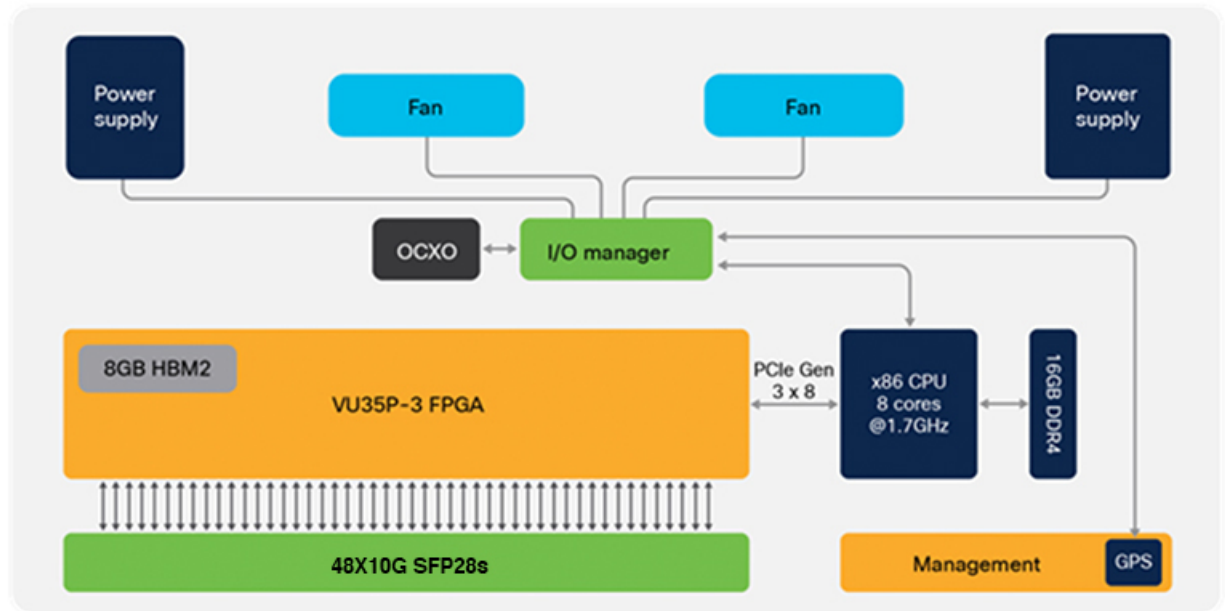
The Cisco Nexus® 3550-T Programmable Network Platform is a top-of-rack software application platform with a unique low-latency design.

A flexible low-latency application platform

The Cisco Nexus® 3550-T Platform features up to 48 ports of Ethernet connectivity in a single-rack unit form factor. The platform is built around a powerful programmable FPGA and provides a complete firmware development environment for custom application and use cases.

A block diagram of the Cisco Nexus® 3550-T Platform is given below.

Figure 1: Data sheet Cisco public



Cisco Nexus® 3550-T Programmable Network Platform

Benefits

- Cisco Nexus® 3550-T next-generation ultra-low latency network switch platforms are specifically designed to address the needs of latency sensitive applications in data center networking, High-Frequency Trading (HFT), financial services, and service provider networks.
- Cisco Nexus® 3550-T Platforms and Switches Ultra-low latency switch platform, FPGA application programming, multiplexing and precision timestamping to facilitate your mission-critical network applications.

Unlock the full value of your ULL network solutions

Cisco Nexus® 3550-T next-generation ultra-low latency network switch platforms are specifically designed to address the needs of latency sensitive applications in data center networking and service provider networks.

[Cisco Nexus 3550-T Series Platforms and Switches](#) Ultra-low latency switch platform, FPGA application programming, multiplexing and precision timestamping to facilitate your mission-critical network applications.

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Sustainability Topic	Reference
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Information on electronic waste laws and regulations, including products, batteries, and packaging	WEEE compliance

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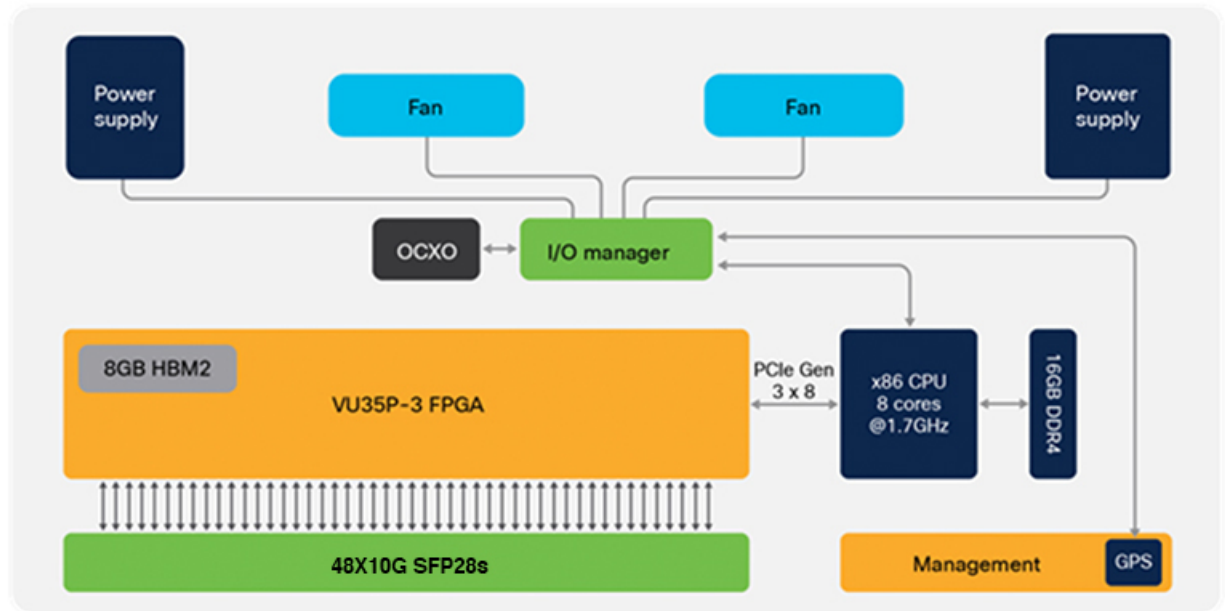
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Hardware Architecture of the Cisco Nexus® 3550-T Switches

The Cisco Nexus® 3550-T Programmable Network Platform has a fixed form factor that is built around a dynamically reconfigurable FPGA (Field Programmable Gate Array) and provides 48 ports that are 10G capable along with an x86 (Intel® Atom® processor with 8 cores up to 1.7 GHz)—management CPU. All 48 ports are directly connected to Xilinx Virtex UltraScale Plus VU35P FPGA with a “-3” speed grade. The FPGA has 8GB of High Bandwidth Memory (HBM) on board. The Cisco Nexus® 3550-T hardware architecture diagram is shown in Figure 2 below.

Figure 2: Cisco Nexus 3550-T Programmable Network Platform Data Sheet



Cisco Nexus® 3550-T Programmable Network Platform hardware architecture

Ease of Management

The Cisco Nexus® 3550-T Programmable Network Platform features a console port, a Micro USB port, a 1G RJ45 port, and a 10G SFP+ port, which can be used as management interfaces.

The Cisco Nexus® 3550-T Programmable Network Platform includes standard enterprise manageability and deployment capability features.

Programmability

The Cisco Nexus® 3550-T Programmable Network Platform provides a powerful development framework to add application-specific intelligence to the Cisco Nexus® 3550-T FPGA Module.

Switch platform features

The Cisco Nexus® 3550-T Programmable Network Platform supports packet-aware statistics. The Cisco Nexus® 3550-T firmware has the capability to monitor for vital packet statistics, including the number of packets/bytes transmitted/received and transmit/receive errors, and deep diagnostics, including light levels, operating temperatures, transceiver capabilities, and more.

All these statistics are available at no latency cost on the critical path. The following are some of the available statistics:

Connectivity

- 48 x SFP28 (small form-factor pluggable) configuration (backward compatible with SFP+ and SFP)
- SFP+ Fiber (10GBASE-SR, 10GBASE-LR, 10GBASE-LRM, 1000BASE-SX, 1000BASE-LX)
- SFP+ Copper Direct Attach

- RJ45 management port
- SMA for PPS in/out* (3.3V with 50 Ohm signal interface)
- SMA for GPS* in
- RJ45 management port
- RJ45 industry-standard serial port (default speed: 115200 N81)
- USB (for firmware upgrades)

General

- 19" 1RU, rack mount
- Weight 10kg (22lbs)
- Dual, hot-swappable supplies
- Standard: AC 90-264V, 47-64 Hz, included IEC C13-C14 cables
- Optional: DC 40-72V
- Maximum consumption: 150W
- Dual hot-swappable fan modules
- Optional airflow direction
- Operating temperature: -5 °C to 45 °C
- Storage temperature: -40 °C to 70 °C
- Operating Relative Humidity: 5% to 90% (noncondensing)
- Storage Relative Humidity: 5% to 95% (noncondensing)

