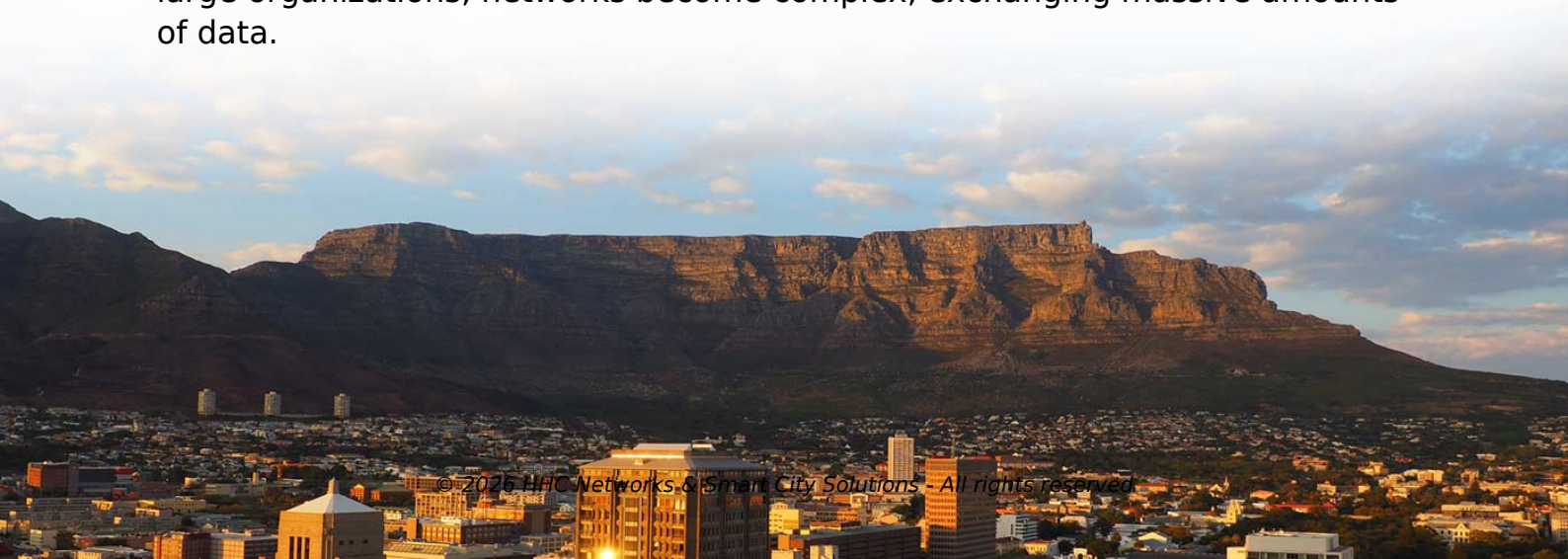
Core switches are used for IP allocation

Overview

Core switches are optimized for high-speed routing and forwarding, operating at Layer 3 of the network model. They apply minimal policy to avoid slowing down traffic. Its primary function is to rapidly forward data packets between different aggregation switches and, ultimately, to the internet. Unlike access switches, which connect directly to end-user devices, the core switch focuses on aggregating and routing traffic between other switches, minimizing latency. A network switch connects multiple devices within a local area network (LAN) and directs data packets only to their intended destination. In large organizations, networks become complex, exchanging massive amounts of data.



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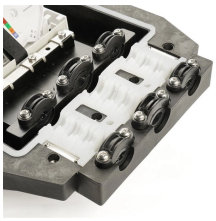
	Core Switch → Needed in large enterprises, campuses, or data centers where a high-speed backbone is critical.
	To achieve backbone speeds, a core switch must operate at Layer 3 of the OSI model, bridging the gap between traditional MAC-based switching and IP-based routing.
	Unlike access switches, which connect directly to end-user devices, the core switch focuses on aggregating and routing traffic between other switches, minimizing latency and ...
	Core switches and normal switches (also known as access switches) serve distinct purposes within a network. This article explores their key differences, helping you make informed ...
	Enables IP routing between VLANs, subnets, and security zones, with advanced routing protocols. Includes dual power supplies, hot-swappable modules, link aggregation (LAG), and support for ...

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These data switches are responsible for routing and data switching at the core layer of the network. The data routed and switched by the core switch is carried forward to the bottom layers of the network ...

The core switch aggregates traffic from multiple mid-level network devices, requiring immense processing power to prevent bottlenecks. It performs high-speed routing, deciding the ...

Multiple data switches are typically employed at the core layer of a network to route a huge volume of data to the levels in the hierarchy. Another rationale for utilizing numerous data ...

Core switches typically have redundant power supplies, redundant supervisors, and multiple connection paths. They''re built to never go down, because when the core fails, everything fails.

Explore the core switch''s role as the backbone of your network. Discover key differences, uses, and insights into layer 3 core switch technology.

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