

Switching Competitive Comparison

	Cisco	HPE	Huawei	Juniper
Innovations				
<p>Investment protection with custom silicon</p> <p>Unique and powerful UADP ASIC offers industry-leading features and functionality.</p>	<p>Cisco custom silicon helps ensure enterprise feature robustness, platform longevity, and investment protection.</p>	<p>Limited</p> <p>Multiple vendor acquisition history makes the product lines inconsistent, with short life spans. A majority of switching platforms are merchant silicon-based with limited flexibility.</p>	<p>Limited</p> <p>Huawei ENP lags in terms of capability when compared with the Cisco UADP. Huawei is missing high-speed stacking interface, lacks performance and flexibility, lacks packet-processing flexibility, and is short on full visibility of data flows.</p>	<p>Switching platforms are based on merchant silicon, limiting flexibility and functionality.</p>
<p>Cloud-Managed</p> <p>Cisco Meraki Dashboard can provide a superior customer experience and simplify business operations.</p>	<p>Cisco Meraki Dashboard is an open and extensible software-based architecture that accelerates and optimizes enterprise network operations.</p>			
<p>Multigigabit technology</p> <p>Give customers switches for Wi-Fi 6, 802.11ac Wave 2, and beyond.</p>	<p>Cisco Multigigabit Technology can prepare customers' access networks for future innovations by delivering speeds of 1G, 2.5G, and 5G on existing Category 5e/6 cables.</p>	<p>Limited</p> <p>HPE offers equivalent multigigabit technology, Smart Rate, which is limited to a couple of product platforms and a limited number of ports.</p>	<p>Limited</p> <p>Multigigabit up to 2.5G only in some switch models.</p>	

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<p>Application Visibility and Control (AVC)</p> <p>Recognize and service more than 1400 applications. Differentiate between nonencrypted and encrypted apps to help ensure appropriate treatment of business-critical traffic.</p>	<p>Cisco access switches can inspect traffic and application flows to help enforce network access policy and protect against attacks with Cisco IOS Flexible NetFlow, DNS-AS, NBAR, and Cisco DNA Assurance.</p>	<p>Limited</p> <p>HPE switching platforms are limited to simple, basic traffic classifications and policy enforcement with ACL. These platforms are also limited by their lack of memory capacity in access switching.</p>	<p>Limited</p> <p>Limited SLA monitoring with Huawei iPCA.</p>	
<p>Converged infrastructure: Consistent automation across WAN, WLAN, and wired networks.</p> <p>Deploy a new branch online, or roll out a new application policy within minutes using a single pane of control and true network convergence.</p>	<p>Use Cisco Prime Infrastructure to centrally provision WAN-path selection with IWAN and security, encryption, app visibility, and control with Cisco DNA Center and Cisco TrustSec.</p>	<p>Limited</p> <p>HPE uses SDN controllers and AirWave for automated deployment of infrastructure of Aruba switches only. For a single pane of glass, HPE uses IMC for the original HPE switches but does not support AirWave.</p>	<p>Limited</p> <p>Huawei's SVF does not provide true network convergence.</p>	
<p>Monitoring by endpoint type</p> <p>Monitor and classify behaviors of devices and data that are critical to identifying problems.</p>	<p>Cisco can use analytics to monitor behavior with Stealthwatch and NetFlow, and classify traffic on the edge and inside the network with TrustSec.</p>	<p>Limited</p> <p>Aruba offers very limited functionality. Tunneled Node is offered as a catch-all solution that cannot scale.</p>	<p>Limited</p> <p>iPCA is offered as an option but provides limited platform support and visibility.</p>	

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Innovations				
<p>Support new capabilities without major upgrades</p> <p>Avoid major upgrades by leveraging existing access points, controllers, and switches without performance impact.</p>	<p>Through the integration of custom ASICs, UADP, and access point modularity, Cisco offers support for new innovations.</p>	<p>Limited</p> <p>No support for modular APs. Switching platforms use a custom ASIC with limited extensibility.</p>	<p>Limited</p> <p>No current support for modular access points that support location-based analytics and beacons/BLE. Only the AP4050DN has some modularity for IoT use cases</p>	<p>No wireless platforms, and switching platforms are based on merchant silicon.</p>
Agility				
<p>Improve experience for Apple users</p> <p>Promote a better user experience for business-relevant applications on all Apple devices.</p>	<p>Cisco and Apple have joined efforts to provide better user experiences for Apple device users connected to a Cisco network.</p>	<p>Limited</p> <p>Functionality can only be supported through manual QoS prioritization and Wi-Fi standards.</p>	<p>Limited</p> <p>Functionality can be supported only through manual QoS prioritization.</p>	
<p>High availability</p> <p>Support redundancy for business resiliency.</p>	<p>Cisco switches offer innovative ISSU features, GIR, and hot-standby N+1 redundancy in stacks, as well as redundant power and fans.</p>		<p>Limited</p> <p>Huawei claims ISSU on some of its switches.</p>	

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Agility				
<p>Consistent application performance across the network</p> <p>Help ensure voice and video experience across a network automatically, without IT intervention.</p>	<p>Through best practices, Video QoS provides a simplified method of delivering end-to-end QoS.</p>			
<p>Detect and set features to new devices</p> <p>When IP phones, cameras, access points, or other devices connect, configurations such as QoS, VLAN, and security are automatically applied.</p>	<p>Through Cisco Auto Smartports, devices are dynamically detected and ports configured based on the device type detected on the port.</p>	<p>Limited</p> <p>HPE can detect and set characteristics on an AP attaching to an HPE switch, but cannot detect other types of devices.</p>		
<p>Power resiliency for IoT and other devices</p> <p>Get an always-on environment for IoT and other devices that are powered via PoE, even when the switch reboots.</p>	<p>Cisco offers Persistent PoE, Fast PoE, and Universal PoE while providing multiple-level redundancy through StackWise.</p>	<p>Limited</p> <p>HPE offers basic PoE/ PoE+ (30W) support, and supplies 1:1 power redundancy via dual power supplies supported in a limited number of switches.</p>	<p>Limited</p> <p>Huawei supports PoE and PoE+ PoH (95W) on a single S5700 platform. Power redundancy is 1:1 PoH (power over HDMI) (95W) on a single S5700 platform.</p>	

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Security				
<p>Integrated security</p> <p>Be consistently ahead of the game to secure the network.</p>	<p>Cisco switches offer advanced security features such as Cisco TrustSec, Network as a Service (NaaS), Cisco Network Security Analytics, Cisco Stealthwatch, Cisco Identity Services Engine, Encrypted Traffic Analytics, Network as an Enforcer (NaaS), mDNS gateway, and MACsec-256 link encryption.</p>			
<p>Threat detection</p> <p>Rapidly eliminate threats across the entire network (wired and wireless) from a single place.</p>	<p>Help eliminate threats across the network with Cisco's security solutions. Products include Stealthwatch, TrustSec, Trustworthy Solutions, Encrypted Traffic Analytics, Identity Services Engine, and Rapid Threat Containment.</p>	<p>Limited</p> <p>HPE offers sFlow, ClearPass, and Tunneled Node to support security across wired and wireless.</p>		

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Security				
<p>Intent-based networking for availability, agility, and policy segmentation</p> <p>Intent-based networking improves network availability and agility. Streamlines end-to-end network lifecycle management through automated design, implementation, and operation and advanced network assurance. Download Gartner report.</p>	<p>Centralize and automate network design, policy, and provisioning of all wired and wireless networks with Cisco DNA Center.</p>	<p>Limited</p> <p>Aruba Tunneled Node is offered as a catch-all solution, but it cannot scale.</p>		
Services for switching				
<p>Depth</p>	<p>Provides end-to-end custom service offers, with expert guidance for accelerating deployment and transitioning to a new or expanded Cisco Catalyst series switching portfolio.</p>	<p>Network Infrastructure Services span the entire lifecycle, with key Advisory and Professional Services that include implementation, network improvement, pre-deployment strategy, deployment, and integration for Aruba switches.</p>	<p>Limited</p> <p>Huawei has a small range of differentiated planning, design, and implementation services, but no clear or extensive messaging related to switching services.</p>	<p>Network Life-Cycle Services feature advisory, custom implementation, testing, onsite technical, remote operational, maintenance, remote managed, education, and certification services for switching support. Juniper recently acquired Mist Systems for Wi-Fi and indoor location services, which supports 802.11ax-ready cognitive Wi-Fi switches.</p>

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Services for switching				
Level of network expertise for ease of adoption and deployment	<p>Cisco experts perform services such as Cisco DNA Advisory Service, SD-WAN and SD-Access Advise and Implement Quick Start, and Solution Support, the primary point of contact for all issues including third-party network environments. Cisco also provides versatile cross-architecture capabilities that incorporate Network Optimization Services for SD-Access, Cisco DNA, SD-WAN, networking, WLAN, and security.</p>	<p>Limited</p> <p>HPE assists with deployment of Aruba AirWave as its WLAN management system for network management and monitoring requirements. HPE also assists with the implementation, configuration, and integration of the predefined management and monitoring design and prepares it for operation with the customer's network.</p>	<p>Limited</p> <p>Huawei offers several downloadable Quick Guides, including Quick Start, Configuration, Maintenance, and Upgrade guides.</p>	<p>Juniper offers an Enterprise Switching QuickStart program to help ensure a customer solution is operational. An onsite consultant develops the initial configuration and deployment of a switching environment. A knowledge transfer session, including a review of local implementation and configuration options, is available but is not intended as a substitute for training.</p>
Security	<p>Security Segmentation, a workshop-based service, creates a segmentation strategy aligned with business objectives. The service reduces risk by applying security and policy controls across compliance, threat detection, content security, data loss prevention, and other security disciplines. These controls help protect data and intellectual property from internal and external cyber attacks.</p>	<p>HPE Security Risk Management and Digital Protection Services include a workshop based on knowledge and experience with new technology megatrends, risk and threat management, and protection models to align business needs and priorities. It provides a structured walk-through of concepts and models for protecting the digital enterprise.</p>	<p>Network Security Design Service leverages a continuously updated database and six management and control technologies to provide designs for access security, transmission security, data security, access behavior control, and audit compliance. The network is properly divided into several security domains, based on customers' business and network-security-protection requirements.</p>	<p>Advisory security services include a Security Intelligence Readiness Evaluation, which provides information that helps thwart cyber attacks. It assesses site design and architecture for potential vulnerabilities, while preparing a summary of the assessment and recommendations.</p>