

Interconnecting Data Centers for Cloud Scale



Benefits

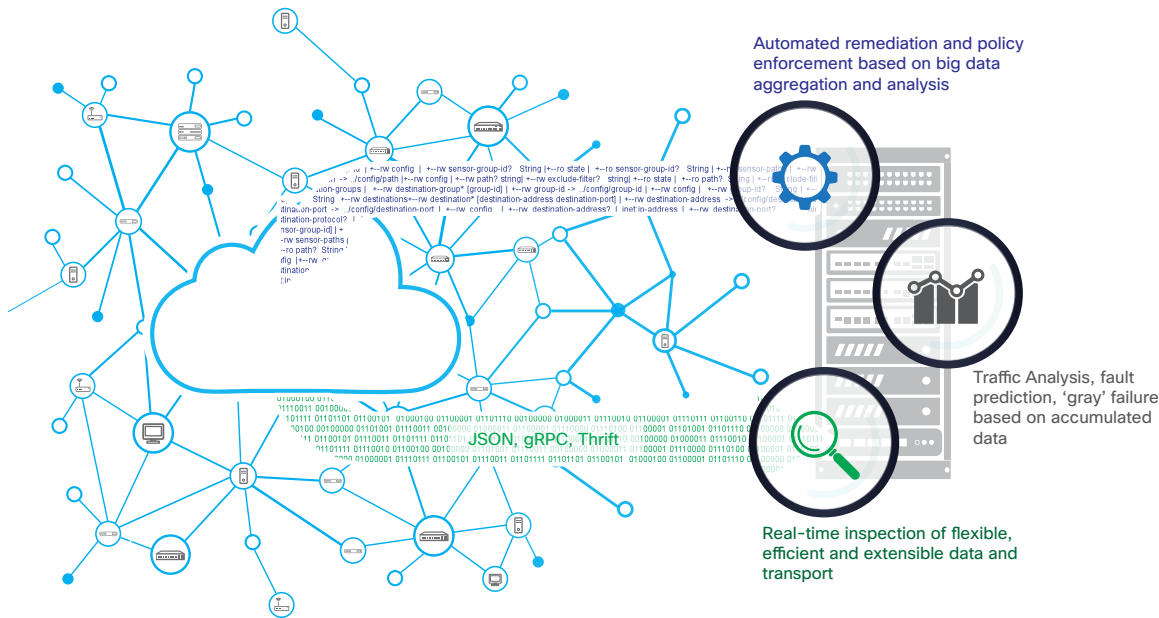
- Simplify and automate operations with turn-up time reduced from days to minutes, standards-based open management, multivendor environment support, and real-time actionable views via telemetry.
- Reduce the price per bit with industry-leading capacity and density built into a box designed to operate as a server and mechanically optimized for the data center.
- Rapidly respond to an increasingly dynamic service environment with Cisco IOS® XR Software cloud-scale features, including on-demand scalability and an open ecosystem of independent software vendors (ISVs) that DevOps can utilize to reduce the time to market for competitive services.
- Expand when needed with pay-as-you-grow model, which provides you with a cost-effective solution for managing network capacity.

Optimizing the Data Center Interconnect

With traffic between data centers expected to increase threefold by 2019,* you need a solution that can meet the challenge of this exponential growth in traffic and the pressures on networks caused by digitization. A solution optimized for the cloud that reduces operational costs, scales with flexibility, simplifies and automates operations, and supports a rapid response to your dynamic service environment.

With an industry-leading capacity, density, and footprint, the purpose-built Cisco® NCS 1000 Series supports these goals by lowering OpEx, through a dramatic reduction in space and power requirements as compared to legacy solutions. The NCS 1000 also scales efficiently and flexibly through its fully programmable, high-bandwidth capacity (up to 250 Gb wavelengths over distances exceeding 3000 km using existing fiber).

Operations and management are simplified by Cisco IOS XR Software, which supports zero-touch provisioning, fully automated device onboarding, and real-time actionable views via streaming telemetry. And the NCS 1000 in conjunction with IOS XR, supports the cloud-scale features and technologies you'll need to build a dynamic service environment on top of a network fabric comprised of WAN and data center resources.



IOS XR & Cloud-Scale Networking

IOS XR support streaming telemetry, the ability to select data of interest and transmit that data in a structured format to a remote management station for monitoring and analysis. Telemetry data is continuously streamed based on a push model, providing near-real-time access to monitoring data. Streaming telemetry offers a high performance, push based alternative to SNMP that's independent of a management information base (MIB).

Next Steps

To learn more about how the NCS 1000 series can evolve your data centers to cloud scale, contact your Cisco account representative or visit <http://www.cisco.com/c/en/us/products/optical-networking/network-convergence-system-1000-series/index.html>.

Simplicity, Automation, & Virtualization Through Cloud-Scale Networking

Simple to use, optimized for controlled environments, automation focused, and designed with maximize capacity at a minimum footprint, the Cisco NCS 1000 series enables you to rapidly achieve cloud-scale networking through:

- High scalability and resiliency with a purpose-built, model-driven architecture and support for multiple hard disks to mitigate failures.
- A distributed architecture that enables on-demand services with much greater exibility and provides the agility you need to deploy, modify, and scale services up or down in seconds or minutes, rather than hours or days.
- A rich body of streaming telemetry data to support the continual renelement of resource allocation and automated fault isolation capabilities, thereby reducing the mean time to problem resolution.
- Open, standards-based automation capabilities that accelerate processes, minimize errors, and reduce operational costs throughout the service lifecycle.