

Network modernization

# Unlocking the full value of software-defined networking

## Why make the change?

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**The implementation of software-defined networking with centralized access management delivers tangible benefits. You gain improved quality of service and the assurance of secure and fast device and policy deployment, while at the same time increasing your ability to mitigate risk across your network operations.**

Intent-based networking (IBN) adds artificial intelligence and machine learning capabilities to software-defined networking. Using these additional capabilities, business policies are translated into the desired network state using centralized network orchestration software. This centralized network software is leveraged to automatically implement policy-based configurations consistently across the network. With IBN, customized networking baselines can be developed to define the optimal network state for the organization. These baselines are then used to monitor the network to identify network performance issues faster, provide continuous verification and automate corrective action where feasible.

Reliance on manual processes can have a major impact on the efficiency of your IT operations. **Automation can reduce risk and increase the speed of deployment.**

So, what's all this worth? That depends on what your current networking challenges are costing you in terms of operational efficiency and your ability to respond to change with your current support model and resources.

Most enterprises have witnessed their networks becoming increasingly complex, driven by digital transformation initiatives, more cloud-based applications, a proliferation of a broad diversity of endpoint devices and a demand for an ever-increasing level of service to remain competitive. And yet, a [Cisco McKinsey study](#) found that many operational models are still too reliant on manual intervention, identifying that:

- 95% of all network changes are performed manually
- 75% of operating cost is spent on change and troubleshooting issues
- 70% of policy violations are due to human error

Reliance on manual processes can have a major impact on the efficiency of your IT operations, taking up too much valuable time, duplicating effort, creating a high risk of potential human error and increasing the overall cost of change.

Automating network changes to thousands of devices and having the ability to continuously verify compliance without human intervention will take away some of the strain from your IT team, decrease risk and achieve increased assurance and speed of deployment. Monitoring actual performance against granular desired-state baselines with the support of advanced analytics, machine learning and artificial intelligence accelerates the identification of issues and flushes out the root cause quickly. Once you understand the issues, remediation is faster and, as a result, any potential business impact is reduced.

What if you could reduce the time and effort spent on routine tasks and increase the efficiency of your operational model? And do so while improving your quality of service and reducing compliance risks? These may sound like aspirational goals, but they can be realistically achieved by implementing intent-based networking with centralized access control.

**What if you could optimize your operational efficiency?** We provide a broad range of services to support your transition to an intent-based network.

### **Advantages of intent-based networking with centralized access control**

Network complexity and the rapidity of change require a more dynamic approach to building, deploying and managing the network environment. You can overcome your network challenges today and prepare for an even more dynamic future by adding intent-based networking and centralized access to your software-defined network.

### **The value of end-to-end software-defined network fabric with centralized network management**

Network transformation will call for a change in your IT operations model – new tools, processes and skills will be needed if you are to consistently gain the full benefit of your investments.

Network modernization demands operational transformation to create a truly cloud-ready infrastructure that delivers the performance and security essential for high-quality user experiences. Platform automation, AI/ML and orchestration can help organizations realize the potential of intent-based networking, from cloud to device.

NTT has a broad range of services to support the transition to an intent-based network. We help our clients to maximize the potential of software and the lifecycle value of existing hardware assets. Deep API-level integration with vendor technologies enables new levels of visibility and control to simplify the management of subscription software, accelerate technology adoption and proactively identify potential risk.

### **Accelerate time to value from your networking investments**

Start your journey by taking this short [Network Assessment](#).

