Transform wide area networking (WAN) for cloud

Achieve high performance, improve agility and enhance user experience with SD-WAN
Our software-defined wide area networking (SD-WAN) solution securely connects your users to applications no matter where they reside, with the optimum blend of private and public connectivity options, improving operational efficiency and business agility.

We have an unparalleled set of network assets, capabilities and service offerings to be your ideal WAN transformation partner and ensure that your network is fit for the cloud economy.

**Solution approach**

Today's global business environments are constantly evolving. As a result, organizations are adopting cloud-first, or even cloud-only strategies for new applications, creating demand for a next-generation network.

This network needs to be agile to support cloud services that have different data sovereignty, application performance requirements and diverse traffic types.

**Cloud services are transforming networking**

With more users and devices joining the network, demands on connectivity and bandwidth have exploded. As a result, traditional WAN infrastructure – built before the cloud, mobility and collaboration became mainstream – is under great stress and unable to handle the amount of traffic generated by cloud services and real-time applications, such as video and voice. This leads to a deadly combination of rising costs, poor network visibility and inadequate performance.

Moreover, as traffic patterns go directly to the internet or cloud, rather than through the traditional data center, outdated components and software within the mature WAN infrastructure can provide an easy opportunity for online attackers to breach networks.

**The Solution: SD-WAN**

Software defined networking (SDN) solves these problems by abstracting the control and configuration functions traditionally hardwired into network routers and switches, redefining them in software. SDN enables you to quickly and easily reconfigure the network using a software interface. Policies are defined to control network traffic based on business rules which can change quickly as applications evolve.

A properly-implemented SD-WAN applies SDN across a company's entire global network infrastructure to create a flexible secure overlay network. Business agility is enabled through central control and orchestration of network policies that can be optimized for different applications as necessary. Beyond this, the network itself can optimize traffic dynamically by constantly monitoring its state.

**Tangible business benefits**

SD-WAN's application optimization and hybrid networking translates into a tangible business benefit: enhanced productivity. Employees that may have been hindered by high latency, slow database access and choppy video will find themselves able to achieve more each day as their computing experience improves.

CIOs face constant pressure to do more with less; our SD-WAN solution creates a robust platform that ensures IT budgets are spent more effectively. By rightsizing local and branch network connections, organizations can save money on networking contracts that are underused. You can also decrease reliance on relatively expensive network services such as MPLS by supplementing those networks with more cost-effective connections that can be made more reliable through intelligent path control.

Adopt new and emerging technologies from the right partners in order to implement an SD-WAN purpose-built for digital transformation.
**Services overview**

We are different from other SD-WAN solution providers in that we have flexible engagement models to suit the way you want to consume your SD-WAN:

We can deploy and manage NTT Ltd. connectivity and technology, or manage client-provided connectivity or technology (or a hybrid of both).

**We offer:**

- Software-as-a-service (SaaS) access and direct connectivity to all major public cloud providers.
- Distributed and scalable internet security via our global SD-WAN platform and local cloud centers, providing detailed firewall policy enforcement with intrusion prevention, web content filtering and malware detection reporting.
- First-call access to senior network engineers for network operations center (NOC) support with 95% of issues resolved on the first call, and 99% of trouble tickets opened proactively.

We have a complete lifecycle of services that can support you no matter where you are in your WAN transformation journey:

- **Consulting Services and Architecture Consulting Services** – helping clients map desired business outcomes to the underlying technical architecture required to deliver on those outcomes.
- **Technical Services** – a safe pair of hands to navigate the project management, deployment, and installation of the SD-WAN infrastructure.
- **Support Services** – ensuring high network availability through optimized maintenance and support services to keep the underlying infrastructure up and running.
- **Managed Services** – designed to optimize multivendor, intelligent infrastructure performance.

**Challenges and solutions**

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<th>Challenge</th>
<th>How our solution addresses the challenges</th>
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<td><strong>Vendor and service provider confusion</strong></td>
<td>As SD-WAN services have picked up pace in recent times, the landscape has fragmented, with dozens of SD-WAN equipment vendors and numerous carriers/service providers available in each region. Our vendor-agnostic approach provides assurances that we are the right partner to help clients navigate through these dynamic market environments.</td>
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<td><strong>Silo-based approach</strong></td>
<td>SD-WAN is only one important component of a comprehensive hybrid IT strategy, and must be aligned to and integrated with an organization’s cloud, data center/colocation, security and visibility/performance management strategy. We have an unparalleled set of assets across all these silos to enable your hybrid IT strategy.</td>
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<td><strong>Underestimating the ‘transition risk’</strong></td>
<td>When seeking to digitize their business, clients could neglect the risks of transitioning from a legacy WAN to SD-WAN. The larger and more geographically-dispersed the network, the more challenges they’ll encounter along the way. With our expertise as a Tier 1 Service Provider, spanning five continents and serving over 2,000 global customers, we are the ‘safe pair of hands’ for your WAN transformation journey.</td>
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<td><strong>Underestimating the ‘operational risk’</strong></td>
<td>Once they’ve migrated, many clients also underestimate how complex it is to manage their new SD-WAN infrastructure. A network overlay creates opportunities to manage network policy in a highly granular and flexible way requiring network, application and security teams to interact closely. We have extensive experience in SD-WAN policy lifecycle management across an SD-WAN and VPN footprint covering over 190 countries.</td>
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Why NTT Ltd.?

**Global SD-WAN network service capability:**
We have more than 10 years’ experience delivering global SD-WAN and cloud-based services, with a service reach in over 190 countries, while leveraging more than 1,000 local ISP providers to deliver SD-WAN services to clients.

**Real-time streaming network analytics:**
Our streaming network analytics provides deep insight for our clients’ IT staff, and highly differentiated real-time application visibility and DVR replay functionality of network performance.

**An ‘on-net’ experience for end users:**
We focus on offering SD-WAN clients an ‘on-net’ experience for end users by leveraging NTT Ltd.’s Global Data Centers and our global Tier-1 internet backbone, and provide optimized direct connectivity to cloud and SaaS providers.

**A recognized network provider**
NTT Ltd. ranked highest in three use cases in Gartner’s 2020 Critical Capabilities for Network Services, Global¹ and is positioned as a Leader in the 2020 Gartner Magic Quadrant for Network Services, Global².

The NTT Ltd. advantage
Our SD-WAN solutions resolve the challenges associated with legacy WAN infrastructures as organizations accelerate their move to the cloud:

**Improved performance through application-aware routing**
SD-WAN provides application-based routing to significantly improve performance when compared to a traditional WAN. We work with you to identify, profile and prioritize the sites and applications that will benefit most from SD-WAN; reducing latency to SaaS applications with direct internet access at branch locations.

**Make changes faster — an agile network that responds to the dynamics of your business**
With centralized management and orchestration, our SD-WAN allows you to spin-up new sites faster and automates provisioning and configuration to the branch location; making it easier for administrators to change network policies automatically or on-demand.

**Greater network capacity, availability and quality for your money**
We’ll combine multiple connectivity types into a single virtual connection to deliver the bandwidth your demanding applications require. Network packets will be automatically routed along the most appropriate links to reflect network policies, and improve network availability through automatic re-routing to alternate paths when primary paths are degraded or down.

**Enhanced security posture**
You can leverage the full suite of NTT Ltd. security services on top of the built-in security capabilities of the SD-WAN solution, such as AES 256 endpoint encryption and network-wide segmentation. We’ll simplify service insertion to introduce perimeter security services.

Organizations require a partner that can provide a cloud-ready, internet-first network that properly connects globally distributed, multicloud environments and delivers the cost and agility benefits expected in a secure and cost-effective manner.

Disclaimer
¹ Critical Capabilities for Network Services, Global, Danellie Young, Katja Ruud, Bjarne Munch, Lisa Pierce, 27 February 2020
² Gartner, Magic Quadrant for Network Services, Global, Neil Rickard, Bjarne Munch, Danellie Young, 20 February 2020

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