Deutsche Telekom SD-WAN based on Juniper Solution

To transition to SD-WAN, you need the right strategy

Most enterprises have already begun migrating to the cloud. Over 70 percent of enterprise applications are already there. Many mid-size and large companies, however, are still in the midst of transitioning. This makes local internet breakouts more important for running SaaS and IaaS application instances. Some organizations have now halted development of services they operate through their own data centers.

62% of large companies have deployed software as a service (SaaS) applications
(According to a recent global Frost & Sullivan survey)

82% of these companies host workloads in infrastructure as a service (IaaS) data centers
(According to a recent global Frost & Sullivan survey)

Key challenges

New ways of working demand more from networks

- Use the internet to connect users directly to cloud applications
- Continuously deliver a high quality of experience for apps
- Keep up with changes to the WAN without configuring and administering devices individually
- Deliver new applications to 100s or 1,000s of sites, across multiple clouds, in less time than before
- Continuously monitor all applications and services to know which issues to focus on, across all sites
- Reduce human error in a complex and changing environment
- Deliver more bandwidth at the WAN edge without extra costs
- Ensure the WAN is never a roadblock and is always able to fully meet the requirements of the business
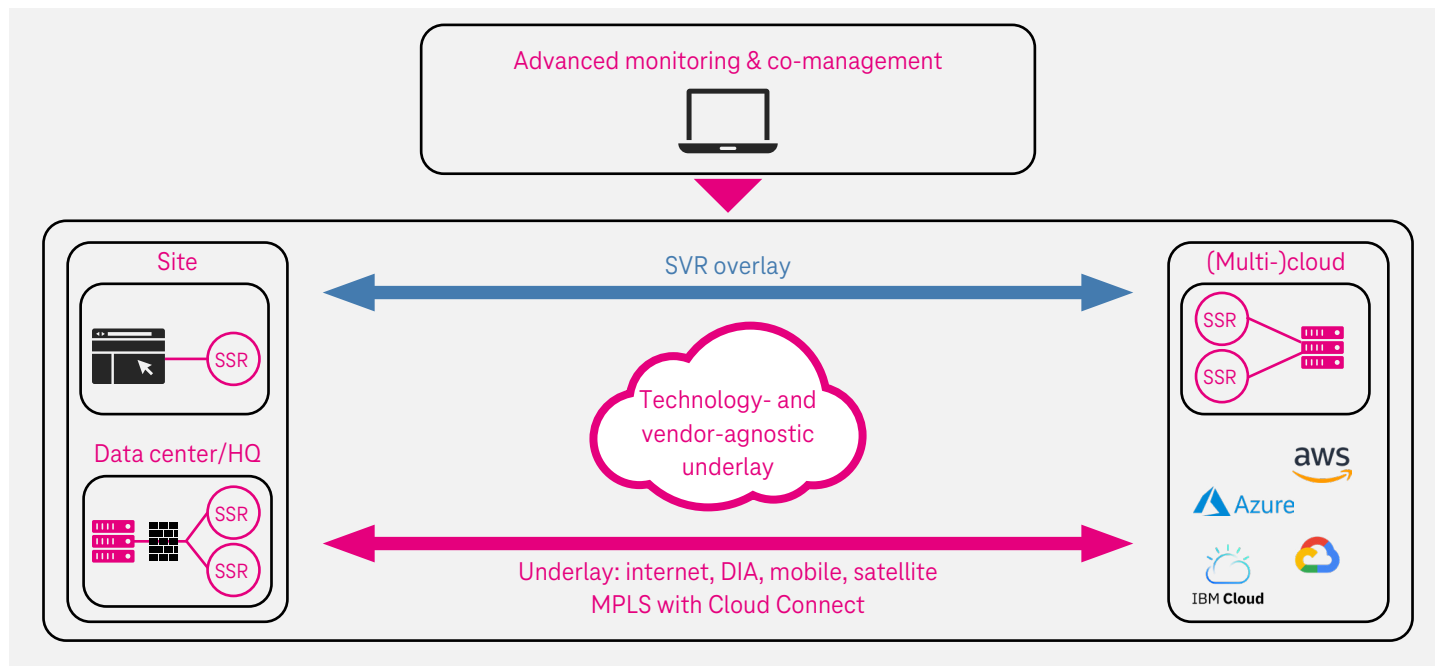- Ensure security even on open, accessible, connected clouds

SD-WAN based on Juniper Solution

The next step in the evolution of the WAN

Software-defined wide area networks (SD-WANs) from Deutsche Telekom based on Juniper Solution are available as fully managed or co-managed services. Most wide area networks (WANs) use hybrid architectures. Multiple, combined underlays such as multi-protocol label switching (MPLS), broadband, and 5G enable flexible and dynamic traffic offloading. You also get decentralized management, scalability, and application traffic steering based on link performance.

An SD-WAN brings all these capabilities together in a single fabric, allowing you to direct traffic securely across all the links in the WAN. Detailed monitoring increases transparency of your WAN status and application performance. This enables better application performance, improving the user experience. The result is greater productivity at lower cost. Unlike traditional WANs, an SD-WAN is designed to provide outstanding performance for both on-premise and public or private cloud applications such as Salesforce and Office 365. While common SD-WAN solutions are based on IP sec Tunnel, Juniper Solution is based on Session Smart Routing (SSR), which greatly improves simplicity, agility, security, performance, and cost.

An advanced and secure SD-WAN platform based on Juniper Solution

Advanced monitoring & co-management

Site

Data center/HQ

SVR overlay

Technology- and vendor-agnostic underlay

Underlay: internet, DIA, mobile, satellite
MPLS with Cloud Connect

(Multi-)cloud

SSR

aws

Azure

IBM Cloud

Key features

- **Increased performance for low-bandwidth links**
  No IPsec header increases payload — this dramatically improves performance, especially for low-bandwidth links like ADSL, mobile, and satellite
- **Fast failover to safeguard critical applications**
  Session-oriented overlay enables very short failover times between access links and paths, preserving sessions
- **Application visibility and control**
  Deep packet inspection identifying applications allowing application- and SLA-based traffic steering, monitoring, and reporting
- **Monitoring portal & app**
  Highly customizable portal offers detailed view on network and link status with app-view for specific sites
- **Zero trust & micro segmentation**
  Built-in security based on zero trust & micro segmentation
- **Multi-cloud support for IaaS, PaaS, and SaaS**
  Hosting virtual SSR nodes in the cloud for optimal performance-based traffic routing to cloud providers. SSR available in major cloud provider marketplaces
- **Co-management for SD-WAN**
  Secure administrative access for customers via role-based access control
- **Customer-owned access**
  Proactive monitoring & alarming (for internet & MPLS) also for bring your own apps (BYOA)
- **Rapid rollout**
  Automated zero touch systems + processes, highly trained staff, and multiple hardware vendors enable rapid overlay rollouts

Your benefits

- Higher performance, also for remote sites
- Greater stability for critical applications
- Built-in security | zero trust & micro segmentation
- In-depth analytics & application | dashboard | customization

USPs

- Best bandwidth utilization with lower overhead
- Fast failover between access lines (sessions are maintained)
- Active use of all available access links
- Enables redundancy and high availability
- Prioritize relevant business traffic (quality of service)
- High transparency on network state and application performance
- Excellent MS Office 365 user experience
- A base for centralizing additional IT services
- Cloud readiness & optimized cloud connection
- Quickly & easily connect new locations with ZTP (zero-touch provisioning)

The Deutsche Telekom Global Business portfolio

We are your partner of choice for design, implementation, and operation of secure SD-WAN solutions perfectly tailored to the needs of your business.

Zero-risk migration
We leverage tried-and-trusted industry-leading migration methodologies and operational principles — with a Zero Outage track record.

End-to-end service
We provide a single, accountable point of contact, offering personal, end-to-end service.

Multiple deployment options
Our SD-WAN services can be used as complete network solutions including our internet access service or MPLS network.
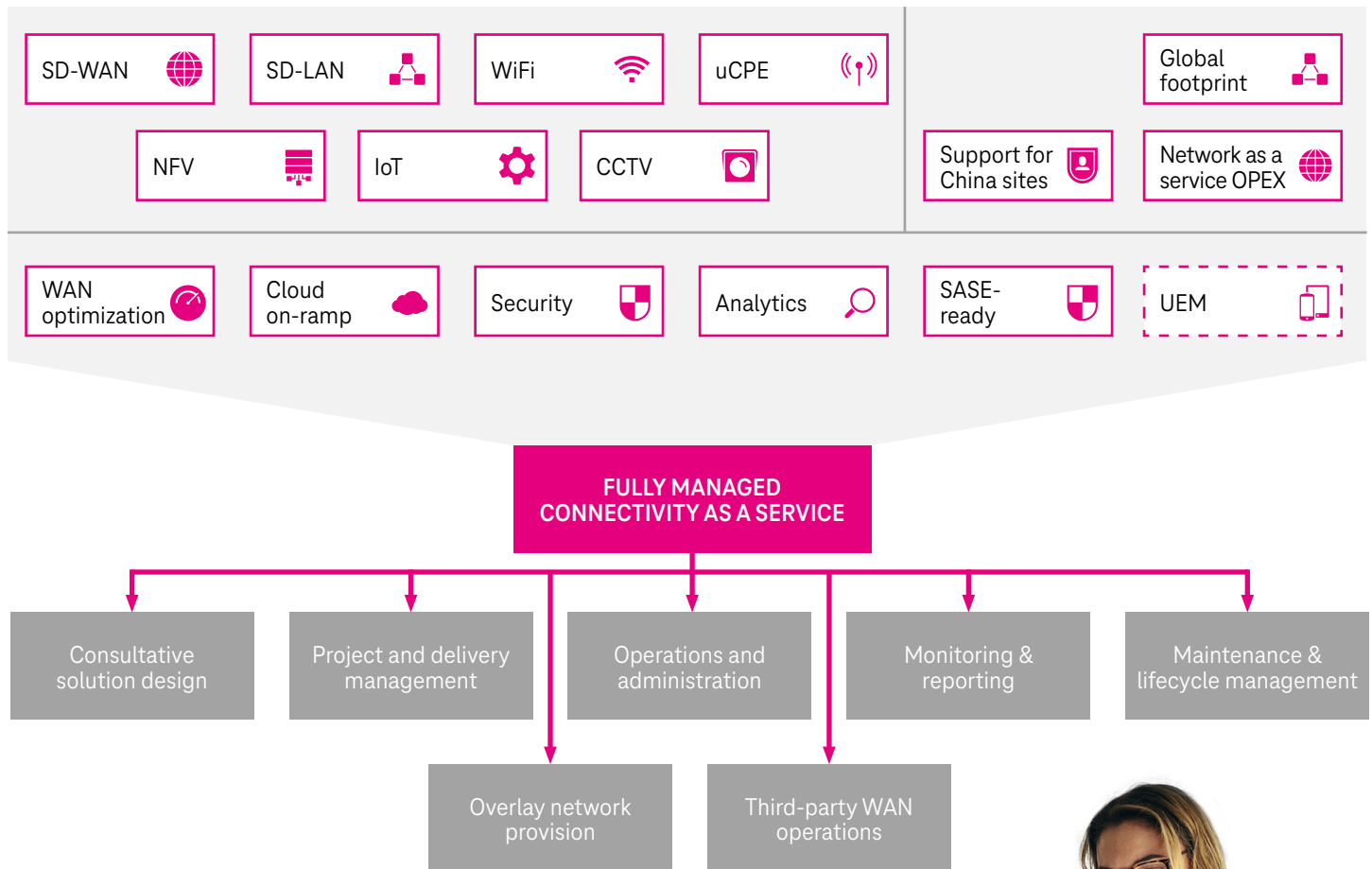
Consultancy approach
We help you build an SD-WAN solution that is a perfect match for your company's DNA by analyzing current and future business needs.

Benefit from our vast experience

Whether it's the underlay network, endpoints, geographic reach, security, or analytics — there are many aspects to consider during the planning for and migration to a business-centric SD-WAN solution. When you choose Deutsche Telekom Global Business, you get the expertise this level of complexity demands. Profit from the vast experience we've accumulated over the years by successfully providing more than 500 customers with fully managed connectivity.

SD-WAN	SD-LAN	WiFi	uCPE		Global footprint
NFV	IoT	CCTV		Support for China sites	Network as a service OPEX

WAN optimization	Cloud on-ramp	Security	Analytics	SASE-ready	UEM

FULLY MANAGED CONNECTIVITY AS A SERVICE

Consultative solution design	Project and delivery management	Operations and administration	Monitoring & reporting	Maintenance & lifecycle management

Overlay network provision	Third-party WAN operations

Success stories

## SD-WAN solution for leading petrol station operator

The company
A leading global operator for petrol stations with more than 40,000 stations in more than 90 countries.

The project
For a region the operation of the existing SD-WAN was taken over and Juniper Solution was rolled out as new WAN overlay for over 1,200 petrol stations within 2 months. The new solution increased stability and performance for sites with poor underlay connectivity. The extremely fast failover ensure credit card transactions are continued even if transport paths are changed whilst transmission. The advanced monitoring highly improves the transparency for the operator's service desk. Local station managers even get a view on the network status of their petrol station on their mobile phone.

SD-WAN solution for Robert Bürkle GmbH
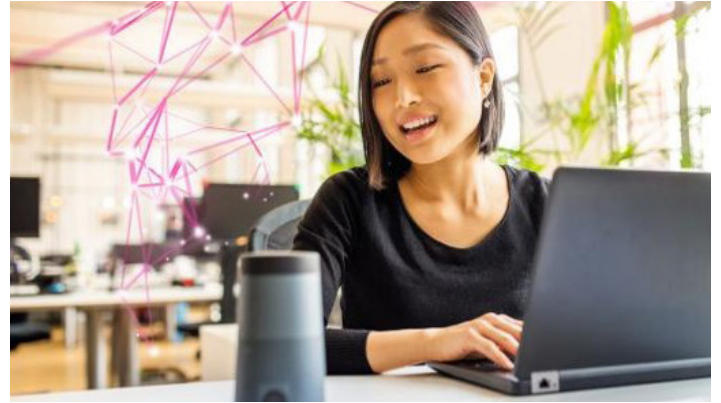
The company
Robert Bürkle GmbH is one of the world´s leading manufacturers of presses and a pioneer in coating technologies.

The project
SD-WAN update for the company's MPLS network: Robert Bürkle GmbH was looking for a more flexible and more performant solution to connect a Chinese location to the data center at the headquarters in the Black Forest. With Telekom SD-WAN based on Juniper Solution, traffic is directed securely across all lines. The smart SD-WAN overlay enables colleagues in China to use 3D design programs with significantly lower latencies and work more effectively. On top, the plug-and-play solution significantly reduces the effort of Bürkle's IT team in terms of network maintenance and configuration.

A strong partnership you can rely on

Deutsche Telekom Global Business

- Part of Deutsche Telekom Group
- 7 competence centers
- More than 400 SD-WAN experts
- Established in 28 countries

Juniper Networks

- Named as a Leader for Enterprise Wired and Wireless LAN Infrastructure and network firewalls by Gartner® in 2021
- Operations in more than 100 countries

For more information
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