Enterprise network transformation

Flexible SD-WAN and SD-LAN from Orange and Cisco in our low-touch, autonomous world

orange™ **Business Services**

Accelerating digital transformation with SDx

After a year of global disruption, enterprises are looking to establish themselves in the new different. They are looking to SDx to streamline and improve the performance of their businesses and become more resilient.

Software-defined everything technology (SDx) is proving itself as an efficient route to support the digital transformation of enterprises. SDx lets you continuously evolve with the changing demands of users and customers. It gives you scalability, enhanced security and cost control, with the ability to innovate more sophisticated solutions and harness the power of predictive analytics.

Network transformation is key to digitalization

Network transformation is necessary to unlock the potential of new digital initiatives and SDx is an essential ingredient. As IDC[1] points out "connected and connectivity" are now more important than ever as businesses become increasingly distributed.

Together with our technology partner Cisco, we provide a wide range of SD-WAN and SD-LAN technologies to meet your business needs. Read on to find out more about our approach to SD-WAN and SD-LAN.

The right time to adopt software-defined networking

The ability to change your network and organize it to meet your specific business requirements is a huge plus for your business. Orange can help you choose and deploy the best software-defined network (SDN) for your enterprise.

Now is not the time to ignore investment in your network. IDC estimates that through 2022, 40% of enhanced digital customer experiences will continue to fail because of underinvestment in intelligent, dynamic network architectures and technologies essential to run modern applications.[2]

SDN delivers agility, flexibility and cost-effective connectivity to support your digital transformation plans. But there is a lot to consider to get its adoption right.

This is where we come in, helping you to plan, pilot, configure, deploy, troubleshoot and manage the lifecycle of your SDx infrastructure; so you get the most out of your investment and boost your bottom line.

SD-WAN: transform your corporate network

All types of networks can benefit from SDN, but the area getting the most attention currently is the wide area network (WAN).

A recent Heavy Reading Report[3] found that 68% of respondents identified a vertical industry focus for SD-WAN. For example, retailers connecting multiple storefronts, warehouses and delivery hubs; manufacturers exploiting SD-WAN's flexibility on the factory floor, in warehouses

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and supply chains; and healthcare linking disparate sites such as hospitals and pharmacies.

SD-WAN is one of the fastest-growing segments of the network infrastructure market, according to IDC.[4] Why? Because traditional enterprise WANs can't sustain digital businesses, especially when it comes to supporting SaaS apps and multicloud/hybrid cloud usage.

Enterprises are also looking for an easier way to manage multiple connections across the WAN to enhance security, performance and the end-user experience.

The many flavors of SD-WAN

Choosing to go the SD-WAN route is a no-brainer for resilience and flexibility in the digital economy. However, with so many flavors on the market, enterprises are finding it difficult to choose a solution. In addition, vendors are making promises they can't keep in existing legacy environments or brownfield sites, leading to disappointment.

Orange can help you through the SD-WAN jungle, with a range of customized solutions for your specific business needs and to comply with your existing dependencies.

We understand that SD-WAN is more than a network upgrade. It demands careful planning to fulfill important criteria in the infrastructure from application performance through to multicloud connectivity. Planning is critical to avoid orchestration and compatibility issues.

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The benefits of SD-WAN include:

- Scalability
- Zero-touch provisioning
- Improved traffic visibility
- Centralized network control
- Increased bandwidth and better cost control
- Enhanced network resilience
- Centralized policy control across locations
- Superior security
- Lower latency

Which SD-WAN approach to take: managed or co-managed

As enterprises accelerate their digital transformation and struggle with a skills shortage, they opt for co-managed or fully managed SD-WAN solutions instead of taking on the management themselves, which requires extensive in-house expertise.

At Orange we help you maximize your SD-WAN investment by fully understanding your business and its specific needs.

We customize our services around your business objectives, complete with business indicators. In most cases, this is built into a single managed service for a monthly OpEx cost, providing a one-stop-shop for connectivity and support. All service strategy, service design, service transition and improvement is our responsibility.

Orange is your answer to managing SD-WAN better

According to a recent survey from Heavy Reading[5], the immediate challenge emerging for enterprises today is not just how to deploy SD-WAN, but how to implement services faster and manage SD-WAN better. We can help you address these pain points, increase productivity and ultimately business growth.

How does Orange managed and co-managed SD-WAN compare?

Co-managed SD-WAN

Co-managed SD-WAN offers you management flexibility such as self-managing VPN services, enabling the provider to focus on overall SD-WAN connectivity, the customer experience and providing network SLAs.
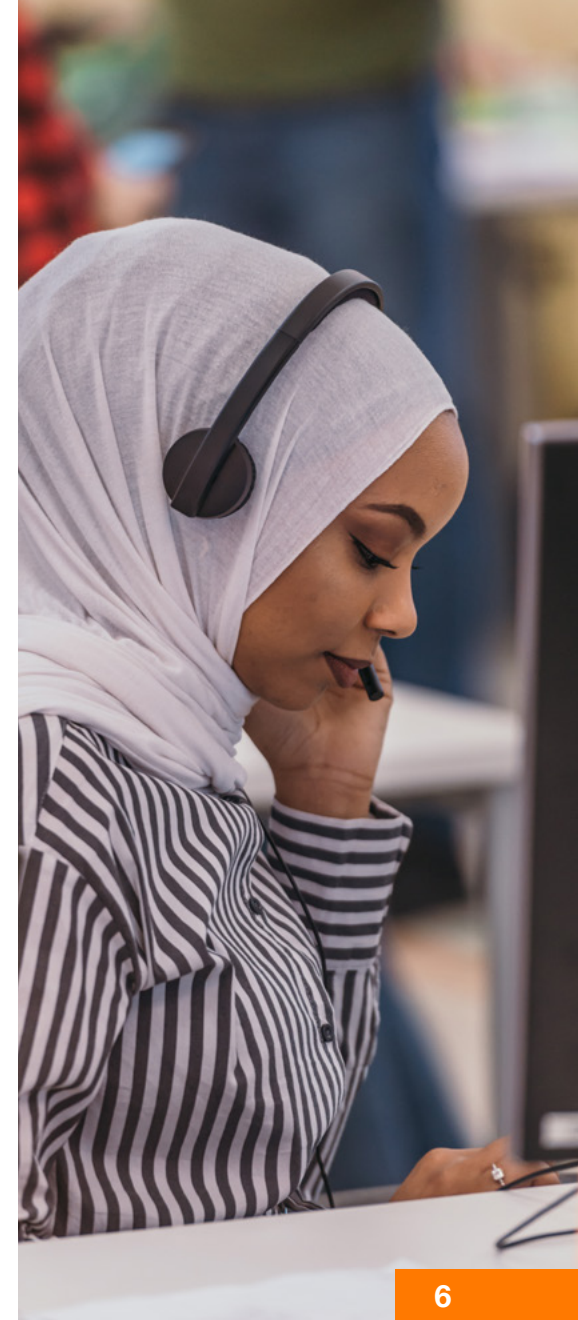
Managed SD-WAN

Managed SD-WAN provides a complete end-to-end service, so businesses can reap the benefits of the technology without having to manage its intricacies and complexities.

Orange will help you put a migration plan in place that will mitigate risk and downtime. With Orange, you get a single SD-WAN contract, a single client portal, a single point of contract and a single invoice.

Solution design can potentially be shared if desired.

Solution design is offered by Orange.

Application routing and security policy change management is shared.

Application routing and security policy change management offered by Orange.

Incident management is shared.

Incident management is handled by Orange.

Both provide contractual simplicity and agility.

Both offer clear SLAs and problem resolution processes.

As part of the managed service, we provide lifecycle management, including testing new releases and regression management. We can also commit to innovating throughout the contract within a proven innovation contractual framework.

We offer capacity management and scalability in both co-managed and managed offerings.

Both offer the ability to choose from a range of additional security features such as internal network segmentation and cloud-based web-traffic filtering.

The path to Flexible SD-WAN: Cisco Viptela or Meraki

Orange brings you proven SD-WAN solutions from Cisco powered by Viptela or Meraki, deployed according to your business requirements.

Orange has chosen Cisco solutions because they spotlight security, cloud access and application reliability as SD-WAN's core characteristics. We believe these are key pillars to successful end-to-end connectivity. They offer flexibility in a cloud-first environment, allowing your users to connect to applications across any cloud.

What is the difference between Viptela and Meraki?

Cisco SD-WAN (Viptela) is highly configurable and can leverage any transport that the customer needs. It incorporates deep packet inspection and advanced orchestration and routing, making it an ideal candidate for large, complex and customized enterprise networks. Cisco SD-WAN also supports on-premise deployments.

Cisco Meraki is a cloud-based out-of-the-box solution with easy to configure wireless, suitable for small to medium enterprises and branch offices.

Cisco Viptela and Meraki SD-WAN both offer the ability to deploy Flexible SD-WAN services across global businesses.

Here are key differences at a glance.

Cisco SD-WAN (Viptela)	Cisco Meraki
Highly configurable and granular. As a result it is more complex. Best suited to enterprises looking for sophisticated orchestration and configuration.	An out-of-the-box SD-WAN solution that meets the majority of branch requirements. It comes with easy to configure wireless.
Incorporates the ability to work out the best path to application resources in almost real time.	Monitors application behavior, but it cannot adapt and make decisions on the best path to resources.
Highly flexible security – includes segmentation. Authentication and encryption central to overlay network.	Robust out-of-box solution includes identity-based firewall, URL filtering and intrusion prevention.
On-premises and cloud management structure.	Cloud delivery through a dashboard.
Single pane-of-glass management, including intent-based WAN configuration.	Single pane of glass to manage network infrastructure.

Suggested business cases for Meraki

- Remote/home working
- Flatter, simpler reliable networks for SMEs
- Opening up of repeatable sites such as retail outlets
- Campus wireless solution for health and educational institutions, for example
- Organizations demanding integrated security with a premium on simplicity

Suggested business cases for Viptela

- Global enterprises with complex networks that require customization
- Global enterprises looking for new ways to optimize their networks for maximum performance
- Cloud-centric enterprises looking for a better way to manage and optimize multicloud
- Integrated security to deliver SASE architecture

Cisco Umbrella provides visibility and protection against threats wherever users are working

Cisco Umbrella provides protection from internet-based threats for users wherever they are. Cisco's SD-WAN offerings and Umbrella enable you to build in cloud security throughout the SD-WAN network. Umbrella incorporates multiple security functions into one single solution, so you can extend protection to devices, remote users, and distributed locations anywhere.

With simple automated tunnel creation via SD-WAN together with Umbrella's secure web gateway and cloud-delivered firewall, enterprises benefit from greater flexibility and much more granularity when it comes to security controls.

Creating a future proof Flexible SD-WAN strategy

No SD-WAN solution is made the same. We have the expertise and experts to guide you through your SD-WAN journey, starting with a future-proof SD-WAN strategy.

We know that networks by their very nature are complex. Replacing legacy networks is not for the faint of heart. There are also cultural changes and training to consider as SD-WAN requires new network management procedures and network monitoring tools.

To achieve a smooth migration to SD-WAN you should consider the following:

1 Work out exactly what you want to achieve from SD-WAN before starting your transformation. Ensure that it maps your business strategy to realize business outcomes.

2 SD-WAN isn't a simple tick-box exercise. For peak performance, it requires continuous monitoring and analysis.

3 Security should never be bolted-on. Make sure your SD-WAN solution uses a security-first approach where it is fully integrated.

4 With branch offices directly opening up to cloud connections and running business-critical applications on the internet, it is paramount that you secure the edge with centralized control and secure management.

5 User experience is one of the main reasons enterprises are looking to adopt SD-WAN. To ensure that you get maximum return on your investment it is crucial that you can monitor application delivery across networks and devices from the very start.

Bringing SD-LAN into the equation

Now that SD-WAN is established, SD-LAN is ready to progress. SD-LAN enables network administrators to better address users' digital demands through enhanced provisioning, simplified network maintenance and enhanced security in their day-to-day operations.

SD-LAN uses the core principles of software-defined networking in the data center and SD-WAN to provide a number of benefits to wired and wireless local networks. These include centralized management, access management, adaptability, flexibility dynamic bandwidth sharing, cost-effectiveness, and scalability. All of these can be achieved while providing mission-critical business continuity to the network's access layer.

The big advantage of SD-LAN is that it can prioritize to automatically refocus network resources, meeting an enterprise's needs in real time for greater operational efficiency.

Self-healing, highly visible and self-optimized networks

SD-LAN extends the perimeter of SD networking, building centrally managed self-healing and self-optimized networks. One of SD-LAN's key attractions is its ability to automate arduous and complex switch configurations. This means that technical support is not required on-site 24/7. SD-LAN provides visibility of all devices on the network and a 360-degree view of the entire IT infrastructure.

Cloud-managed SD-LANs reduce risk

Cloud-managed SD-LANs come with the promise of reduced cost and complexity of network operations through centralized public or private networking. Open application programming interfaces (API) enable robust integration between the network and application infrastructure.

Orange Business Services and Cisco team to develop Flexible SD-LAN

To help enterprises benefit from SD-LAN, Orange Business Services has teamed up with Cisco to develop a centrally-managed wired and wireless architecture that is easy to integrate and run.

Leveraging Orange Flexible SD-WAN's success, the project creates an end-to-end networking journey that delivers an optimized, adaptable enterprise network environment for the digital age.

SD-LAN/WAN integration

The target is for SD-LAN and SD-WAN integration alongside security, IoT and network segmentation. By effectively setting policies and bandwidth limits between the LAN and the WAN, data can be monitored from end-to-end, enabling IT teams to optimize business processes and the user experience.

DIY or managed SD-LAN

With so many changes happening in the market right now, it makes sense to work with an experienced partner like Orange for both the LAN and WAN to provide a resilient and agile end-to-end SD network service.

By outsourcing management of the SD-LAN and SD-WAN journey to a single, trusted partner, you will have greater visibility of your IT estate and as a result better control of budgets.

Why Orange?

Orange Business Services is a recognized leader in the SD-WAN market and a trusted, long-term partner of Cisco.

Gartner has recognized Orange as a Leader in the Gartner Magic Quadrant for Network Services[6], Global for the 21st consecutive year. Orange has been highlighted for its "completeness of vision and ability to execute".

Our ability to execute and meet your needs is demonstrated by the clear recognition of so many of our customers who have already successfully implemented our Flexible SD-WAN solution.

Orange has a proven SDx customer journey framework supporting a large number of global customer deployments with networks as large as 1,500 plus sites.

Our SDx offerings are supported by 350 SDx certified or experienced consultants, engineers and operational experts worldwide.

As a network-native digital-services company, we are here to help you transform your infrastructures in a secured and agile environment that are resilient and flexible to business changes.

Contact your account manager to find out more about SD networking solution or for further information go to https://www.orange-business.com/en/focus/network-transformation

Sources:
1. IDC Future of Connectedness 2021 Top Predictions (Jan 2021)
2. IDC Future of Connectedness 2021 predictions
3. Heavy Reading whitepaper: Managed SD-WAN 2021
4. IDC SD-WAN Infrastructure Forecast Through 2023
5. Heavy Reading Survey: Managed SD-WAN Services 2021
6. Gartner Magic Quadrant for Network Services 2020

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