



# SOFTWARE-DEFINED NETWORKING (SD-WAN)



# BUSINESS BENEFITS

The software defined network has evolved in response to enterprise needs to simplify the deployment and management of WAN infrastructure. More evolution than revolution, it delivers a range of benefits:

## **Ease of deployment**

One of the primary challenges addressed by SD WAN technologies is network deployment. Hardware, software, cloud or hybrid infrastructure can be quickly and easily provisioned and connected automatically when brought online.

## **Improved agility**

IT's ability to respond rapidly to changing business needs is one of its core metrics for success. SD WAN technologies are agile, enabling IT to rapidly provision new networks, policies and services.

## **Dynamic routing**

Dynamic routing (path selection) is integrated within SD WAN, bringing down its price point and helping to optimise network performance.

## **Network standardisation**

SD WAN does more than simplify deployment. It enables administrators to standardise network configuration across multiple sites and provides an inventory of all devices.

## **Enhanced network security**

Defining and deploying network access and security policies across multiple networks is simpler with SD WAN. Group and individual policies are easy to manage and the deployment of new security apps is accelerated.

## **Centralised monitoring & management**

Visibility and control over connectivity, performance and network utility provides valuable management information; supporting better decision making. New policies can be deployed rapidly, and systems alerts can be investigated and remediated remotely.

## **Cost efficiency**

SD WAN eliminates the need to deploy application-specific hardware or software at end-points; allowing IT departments to centralise technical resources. Rapid deployment, network standardisation and cloud-provisioning all reduce the time and effort required to manage your IT infrastructure.





# SOFTWARE DEFINED NETWORKING

## BUSINESS DRIVERS

Digitally enabled organisations are, by their very nature, dependent upon their IT infrastructure to carry on “business as usual”. Work long ago ceased to be somewhere you go and became something you do. The IoT has seen wide area network (WAN) technologies expand beyond the traditional borders of IT infrastructure, adding risk and complexity to the network.

Software-defined networking has emerged in response to the increased demand for agility, security and scalability for corporate networks. The increase in cloud adoption, coupled with the relatively high cost of MPLS connectivity, led to the desire for businesses to be able to rapidly deploy network infrastructure that leveraged the lower costs and shorter paths associated with local internet connectivity.

Server virtualisation had shown IT the way to a future where software-based networking, services and security technologies can be deployed without the need for physical hardware – and the incumbent maintenance and logistics costs involved.

The SD WAN market is maturing rapidly, and early adoption has been replaced by a period of rapid expansion. According to a July 2017 IDC report, business demand for SD WAN infrastructure and services will see a compound annual growth rate of over 69% between now and 2021.

Gartner predicts that 30 percent of enterprises will have deployed SD WAN in branch locations by 2019. It points to SD WAN's ability to effectively bundle existing technologies (including data security, dynamic routing, overlay networks and utility-based pricing) into an integrated solution as a key driver of adoption.

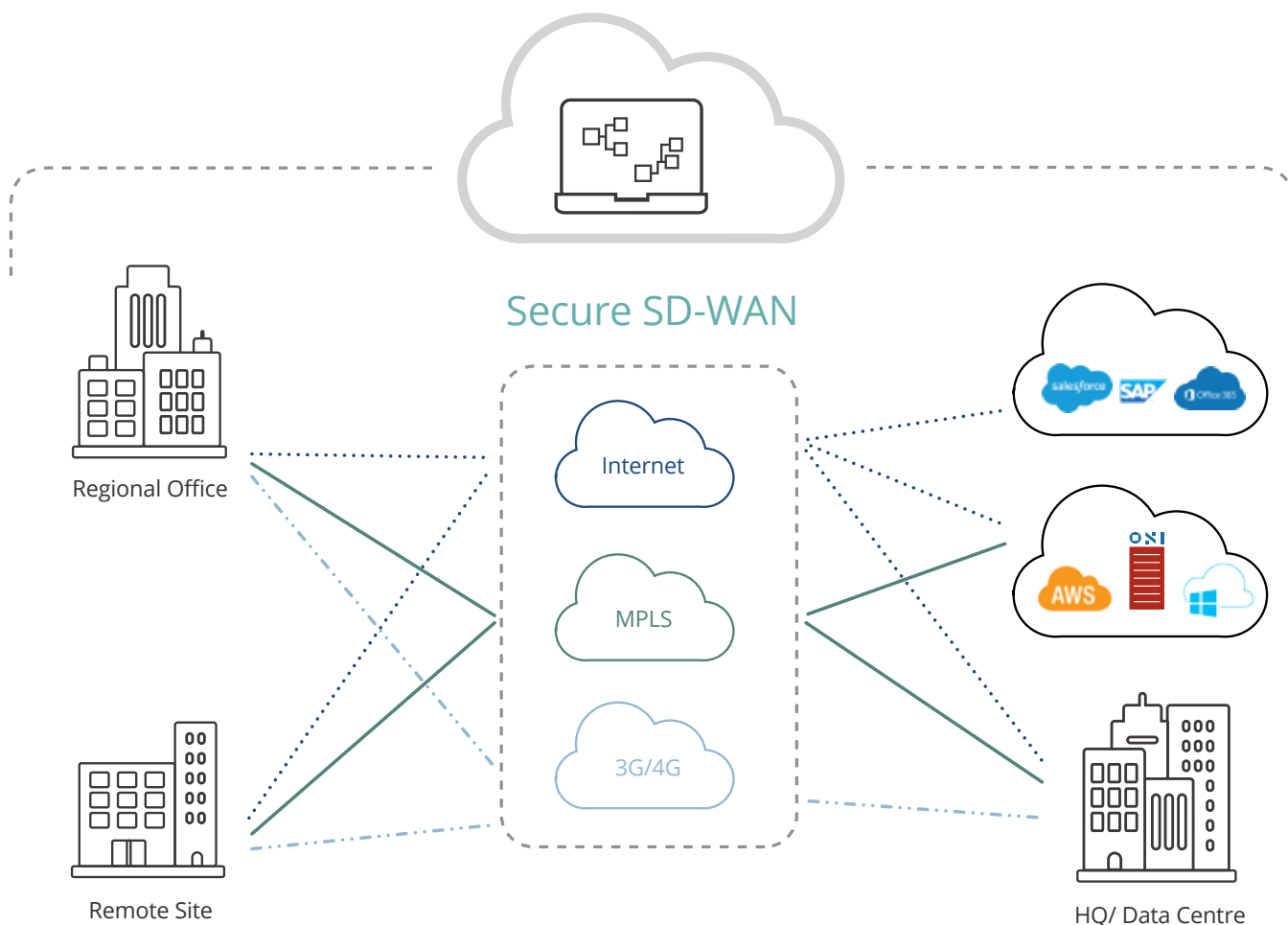
## INTRODUCING SD-WAN

SD WAN is, in essence, the use of software to deploy and manage wide area networks. It is designed to enable IT departments to make better use of network bandwidth and improve both the performance of the WAN itself and the applications it supports.

Dynamic routing of traffic is a core component of the software-defined network. In the same way that server virtualisation and consolidation is used to optimise the performance of infrastructure, SD WAN enables centralised management of networks to help deliver performance optimisation, greater flexibility and cost efficiency.

SD WAN makes the most of cloud provisioning, high-speed networking and borderless infrastructure to improve the delivery of data (including voice and video) across the extended network. It uses all available connectivity (MPLS, Broadband, 4G) to find the best path for network traffic; shaping bandwidth when necessary to optimise performance and user experience.

## CLOUD ORCHESTRATOR



## SD-WAN CAPABILITIES

ONI partners with customers across the UK to deliver best-of-breed technology solutions that are tailored to their specific business needs. Technology is not a one-size-fits-all proposition. It's personal.

The SD WAN journey begins with an assessment of the options available and an audit of your current infrastructure. We engage with customers throughout the lifecycle of any change project, from initial consultancy to systems design, deployment and support.

We never lose sight of the business objectives behind the technology and understand the importance of seamless integration. Security and connectivity form a part of an integrated SD WAN solution, as should network monitoring and management.

Core elements of our SD WAN solution include:

- Support for hybrid infrastructure
- An agnostic approach to connectivity (MPLS, Internet, 4G)
- Dynamic routing
- Centralised management with zero-touch deployment
- Hardware or software deployment

Introducing SD WAN can be the gateway to improved network performance. Extending the virtualisation of network functions across the business can accelerate digital transformation and deliver the agility, security and resilience demanded of a digital enterprise.



# OUR APPROACH

SD WAN is an increasingly vital component of enterprise networking. ONI has adopted a best-practice approach to software-defined networking; one that starts with understanding the business imperatives behind adoption before considering the technology itself.

As with all digital transformation projects, we begin by understanding your existing environment and your unique combination of business drivers. Quality of service is assured through the application of a rigorous, yet flexible methodology that we have evolved over the years to ensure we deliver the expected business outcomes.



## ADVISE

Whether you need help evaluating SD WAN solutions, developing technology roadmaps or building the business case for investment; our pre-sales consultants are on hand to guide you through the available options.



## AUDIT

Before we can recommend any new technologies, we need to understand your current infrastructure. A systems audit from ONI helps define the scope of the project and identify suitable solutions to meet your business objectives.



## DESIGN

The insights and objectives established during the systems audit will dictate the design of your new solution. From proof of concept to deployment model and service level agreement, we work closely with

your IT team to architect a solution that offers both performance and value for money.

Seamless integration with your existing infrastructure is a core component of the systems design process. We test the target state architecture thoroughly, to ensure there are no surprises when it comes to deployment.



## IMPLEMENT

Given the critical nature of any technology project, we are focussed on delivering maximum value with minimal interruption. The ONI project management team adheres to MSP and PRINCE2 project management methodologies to ensure continuity and quality of service throughout the implementation phase.



## OPTIMISE

Systems' monitoring and optimisation are essential to delivering a long-term return on your investment in SD WAN. Once implemented, we closely monitor systems performance to ensure you are getting the most from your new technology. Our service delivery team ensure we are meeting SLAs and have a reputation for pro-actively recommending future systems development.



# NETWORK CONNECTIVITY

ONI also supply a wide range of connectivity options for our customers; enabling us to offer you a complete managed service for all elements of your network.

ONI's connectivity services provide a carrier agnostic route to market, meaning our customers have freedom of choice rather than being constrained by a single carrier's network and technology. This is even more important when looking at deploying services such as SD-WAN.

Another important factor when looking at connectivity for your SD-WAN, is the ability to scale quickly and make changes on the network itself. ONI's connectivity services provide the ability to increase and decrease bandwidth immediately for all on-net services. Our flexible approach means we can support a wide range of network changes, such as the addition of VLANs.

ONI's connectivity services enable the provision of data services to suit the requirements of the most demanding data networks on a national and international basis. This can include integration with third party services, such as public and private cloud-based services, data centre connectivity and other service provider networks.

Our range of carrier-neutral connectivity solutions will be tailored to suit the specific needs of your business and are backed by expert project management, migration support and our 24x7 Technical Assistance Centre (TAC). We also offer technical design, integrated cloud services and fully managed options with round-the-clock, proactive monitoring.

Designed to meet the demands of modern business, ONI connectivity solutions provide secure, reliable access at bandwidths ranging from 2Mb to 10Gb. We also provide networks that conform with IL2 PSN and CAS(T) - important for many organisations in the public sector and defence industries.



# WHY ONI?

Established in 1992, ONI plc is a leading provider of IT solutions and services to both public sector and commercial markets. Privately owned, we offer a comprehensive range of on-site, cloud and hybrid technology solutions.

We have worked hard to establish ourselves as a centre of excellence for digital transformation, but we're not resting on our laurels. We have ambitious plans for even further growth over the coming years, which will see us increasing both our capacity and range of services. Keen adopters of new technologies, we are proud of our reputation as innovators.

Our expertise already spans core network infrastructure, unified communications and collaboration, contact centre solutions, data centre services, connectivity and cybersecurity.

ONI cloud services are delivered from our own Tier 3+ Data Centre, located in the South East of England, and include infrastructure, disaster recovery, UC, collaboration and contact centre solutions as-a-service.

ONI is committed to providing our customers with the availability, performance and agility required to transform their business. It's what we call Business Assured and comprises three core pledges.

## **100% UPTIME GUARANTEED**

Most service providers promise four 9's or even five 9's in terms of availability, but 99.99% uptime still means you are without service for 52min 35s every year. When dealing with business-critical applications, we don't think you should compromise on availability. If you pay 100% of your fees, you should get 100% availability.

Our commitment to 100% uptime underpins our data centre and managed service portfolio; providing our customers with peace of mind that they will always have access to their data and applications.

## **ON-PREMISES OR CLOUD AGNOSTIC**

For many organisations, the future of IT lies in a hybrid converged infrastructure that features elements of on-premises, colocation and cloud-based products and services. But getting agnostic advice on the best place to deploy each application can be difficult.

Cloud service providers naturally will only ever promote as-a-service propositions. Likewise, legacy systems integrators will have experience of on-premises hardware but not the skills necessary to transition services successfully to the cloud. In contrast, ONI offers the best of both worlds.

By combining legacy on-premises solutions with our Data Centre services, our customers benefit from transformative digital solutions, deployed where they add most value. Our agnostic approach to deployment helps organisations to gain a competitive advantage by reducing costs and delivering leaner, less complex IT solutions.

## **PREDICTABLE AND TRANSPARENT COSTS**

Cloud services from ONI are provided from a single orchestration platform; one that offers a simplified product range and an all-inclusive price, based on customer usage. There is no need for specialist procurement knowledge to understand a complex product offering or EA pricing structure, let alone fluctuating exchange rates, making it easy to stay in control and avoid unexpected spiralling costs.

ONI Assure Managed Services provide unmatched details about the status of IT infrastructure devices; enabling IT professionals to make better informed investment decisions about life-cycle management and avoid unnecessary costs. Improved visibility of contract renewals, or when devices reach end-of-life and end-of-support, makes budgeting more accurate and more predictable.



## AVAILABLE FROM ONI:

- Managed Services & Support
- Hosting & Colocation
- Networking & Connectivity
- Back-Up & Disaster Recovery
- Cybersecurity Solutions
- Contact Centre Solutions
- Mobility & Collaboration
- Unified Communications



01582 429 999  
www.oni.co.uk  
marketing@oni.co.uk  
16-24 Crawley Green Road, Luton, Bedfordshire LU2 0QX



Established in 1992, ONI plc is a leading provider of IT services and solutions. We deliver a unique blend of on-site, hybrid and Cloud computing systems, from our Tier 3+ UK data centres. Our workforce holds over 400 accreditations from vendors such as Cisco, VMware, NetApp, Veeam, Gamma, BT and Microsoft.