# COMSCENTRE
# SD-WAN INSIGHTS

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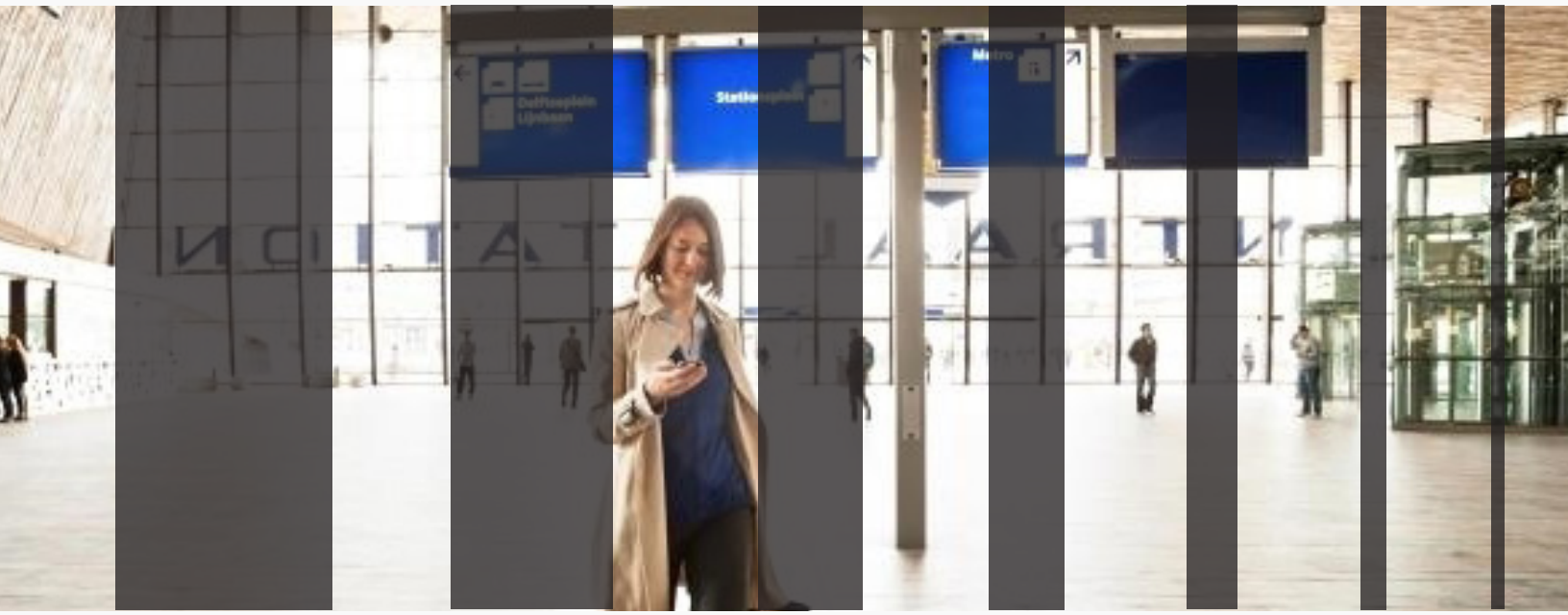

# TAKE BACK CONTROL OF YOUR NETWORK

Is your productivity where it should be?
How much quicker could your business be operating with the right network and bandwidth?
What effect would that have on your bottom line?

For years Private Networks have been the haven for the big Telcos to lock you into long term contracts and charge for the privilege. The nbn™ is changing the game for Australia opening up competition and creating an environment of innovation like never before.
Finally a technology that breaks the chains has arrived. SD-WAN breaks the chains of the big Telcos and opens opportunities for businesses to deliver better services at more competitive prices.
But what does SD-WAN mean for your business and how can you best take advantage of it?

## SOFTWARE DEFINED (SD) WAN
## **Simple, Secure, Optimised Connectivity**

*2019*

### SD-WAN INSIGHTS

According to IDC's Technology Spotlight on SD-WAN from April 2019 Cloud Security and Rising WAN Complexity Are the Top WAN Challenges Today. In the absence of SD-WAN, connecting users securely to public cloud apps is complex and expensive*.

In May 2019, Comscentre hosted an executive luncheon, where 20 C-Level executives, who were actively seeking an SD-WAN solution, were invited to share their experiences, questions and insights in a roundtable discussion.

Representatives from nbn™ and Cisco were in attendance to share an update on the impact of the nbn™ rollout on businesses around Australia, and enhancements to the Cisco SD-WAN offering.

Flight Centre presented their case study on the impact of SD-WAN on their business.

### WHAT IS SD-WAN

SD-WAN is a software-defined approach to managing the wide-area network, or WAN.

Key advantages include:

- Reducing costs with transport independence across MPLS, 3G/4G LTE, etc.
- Improving business application performance and increasing agility.
- Optimising the user experience and efficiency for SaaS and public cloud applications.
- Simplifying operations with automation and cloud-based management.

*Comscentre has implemented the largest SD-WAN in Australia for Flight Centre – including carrier provisioning, network management and a Cisco Meraki SD-WAN and Wireless to approximately 1,100 sites. The largest project of its kind globally at the time of delivery, building on the vision to create 'The Store of the Future'. Monitoring and vendor management are delivered by Comscentre's One Touch Control (OTC), integrated with the Cisco Meraki platform.*

**WATCH THE VIDEO HERE**

## WHY NOW FOR SD-WAN?

### TODAY'S IT CHALLENGES

Times have changed. As businesses race to adopt the use of SaaS/IaaS applications in multiple clouds, IT is realizing that the user application experience is poor. That is because WAN networks designed for a different era are not ready for the unprecedented explosion of WAN traffic that cloud adoption brings. That traffic causes management complexity, application performance unpredictability, and data vulnerability.

Further opening the enterprise to the Internet and the cloud exposes major threat and compliance issues. It is extremely challenging to protect the critical assets of an enterprise when applications are accessed by a diverse workforce, whose role access ranges from employee to partner, contractor, vendor, and guest. Enabling broadband in the WAN makes the security requirements more acute, creating challenges for IT in balancing the user experience, security, and complexity.

### THE NEW WAN

New business models drive the need for a new network model. There is a new kind of WAN to address these challenges: SD-WAN. Software-defined WAN is a new approach to network connectivity that lowers operational costs and improves resource usage for multisite deployments. Network administrators can use bandwidth more efficiently and can help ensure the highest level of performance for critical applications without sacrificing security or data privacy.

### HOW DOES SD-WAN HELP IT?

The traditional WAN architecture was limited between enterprise, branch, and data centre. As businesses adopt cloud-based application services in the form of SaaS/IaaS, their WAN architecture experiences an explosion of traffic accessing these globally diverse applications.

These changes in business models cause multiple implications for IT. Employee productivity is impacted by SaaS application performance problems. At the same time, WAN expenses rise with inefficient use of dedicated and backup circuits. IT is fighting the daily, complex battle of connecting multiple types of users, over multiple types of devices, to multiple cloud environments.

With SD-WAN, IT can deliver routing, threat protection, efficient offloading of expensive circuits, and simplification of WAN network management.

# SD-WAN INSIGHTS
# COMSCENTRE EXECUTIVE ROUNDTABLE MAY 2019

**WHAT'S THE HYPE ABOUT SD-WAN, WHAT WILL IT REALLY DO TO MY BUSINESS?**

SD-WAN enables organisations to drive innovation through providing higher quality services while reducing operational cost.

Today, there is a wide range of providers and network infrastructure available to businesses (4G, ADSL, nbn™). Understanding the options and making the right choice for your business can be a challenge, so selecting a Service Provider to help navigate these options can make all the difference.

With SD-WAN, IT can:

### SIMPLIFY MANAGEMENT

As a centralised, cloud-delivered WAN architecture, SD-WAN makes it easy to scale across thousands of endpoints, whether they are in the branch, campus, or cloud. IT has the ability to automate zero-touch deployment globally, using a single management interface.

### IMPROVE THE USER EXPERIENCE

WAN optimisation delivers optimal cloud application performance from multiple clouds to users anywhere. In the event of link failure or link degradation, application-aware routing can dynamically route traffic between dedicated circuits and secure Internet connections to drive constant delivery of business-critical applications.

### INCREASE SECURITY

Threat prevention is enforced at the right place. SD-WAN architecture features distributed security at the branch level. Data does not have to travel back to the headquarters or data centre for advanced security protection (such as a firewall, DNS enforcement, or intrusion prevention).

REDUCING **TOTAL COST OF OWNERSHIP** WITH CISCO MERAKI

**TCO = CAPEX + OPEX**

TOTAL COST OF OWNERSHIP | CAPITAL EXPENDITURE | OPERATIONAL EXPENDITURE

## Potential Savings

**UP TO 20%***

CapEx savings are largely dependent on pricing variations between enterprise hardware and licensing vendors.

**UP TO 90% WITH MERAKI**

Gartner estimates that 80% of total IT costs occur after the initial purchase meaning the greatest potential to reduce TCO lies within OPEX.

Meraki has carried out studies with customers to reveal OpEx savings in the region of 90% when compared to more traditional technologies.

## CASE STUDIES

### RETAIL

*Victra*

VICTRA

*Verizon authorized retailer*

*Deployed Meraki security appliance + wireless and switches at **670 stores** with **500 more planned***

| MERAKI | TRADITIONAL |
|---|---|
| 6 | 1 |

SIX MERAKI STORES CAN BE BROUGHT LIVE FOR COST OF ONE, USING TRADITIONAL TECHNOLOGY

SAVINGS WITH MERAKI OVER 3 YEARS

| OPEX | TCO |
|---|---|
| 97% | 83% |

COMPARED TO TRADITIONAL TECHNOLOGY

### MANUFACTURING

*Bar S Foods*

*Largest food packing company in North America by volume*

***14** distribution centers, **5** production sites, **1** warehouse, **1** HQ*

**$5.25 MILLION**

PRODUCTION REVENUE SAVED WITH MERAKI OVER 5 YEARS

**525 HOURS**

CUMULATIVE HOURS SAVED WITH MERAKI OVER 5 YEARS

SAVINGS WITH MERAKI OVER 5 YEARS

| OPEX | TCO |
|---|---|
| 99% | 87% |

COMPARED TO TRADITIONAL TECHNOLOGY

### HEALTHCARE

*Center for Neurosciences, Orthopaedics & Spine*

CNOS

*Healthcare organization specializing in Neurosciences, Orthopaedics & Spine*

*Utilize full stack of Meraki devices across **17 hospitals** and satellite clinics*

**15% MORE**

CAPEX COST WITH MERAKI VERSUS TRADITIONAL TECHNOLOGY

**1 YEAR AND 4 MONTHS**

THE TIME TO RECOVER THE DIFFERENCE IN CAPEX WITH MERAKI OVER 5 YEARS

SAVINGS WITH MERAKI OVER 5 YEARS

| OPEX | TCO |
|---|---|
| 90% | 26% |

COMPARED TO TRADITIONAL TECHNOLOGY

# SD-WAN INSIGHTS CONTINUED

*SD-WAN and My Business*

At Comscentre's invitation only exclusive roundtable event, guests and panellists shared insights into these new technologies.

The panel included industry experts from:

- **Cisco Meraki,** a provider of technology for some of the largest SD-WAN networks in Australia.
- **Comscentre**, designing, delivering and managing enterprise network and collaboration solutions. Comscentre delivered Australia's largest SD-WAN for Flight Centre.
- **RIoT Solutions**, experts in Designing secure networks for some of Australia's largest organisations.
- **nbn™**, changing the game for Australia opening up competition and creating an environment of innovation like never before.

**Flight centre** also presented a customer perspective, showcasing their SD-WAN implementation.

## I use MPLS, why would I want SD-WAN?

SD-WAN complements traditional MPLS networks by providing a simple and cost-effective way to access Internet-based resources such as Office365.

Implementing an SD-WAN solution also ensures network redundancy.

## What carriage can I use? MPLS, Internet, 4G

With the rollout of nbn™ all of these options and more are available from a range of providers. It's important to choose a managed services provider that offers your business the right choice of carriage services.

## Can we just send SAAS (Office365) traffic straight to the internet? How would we secure this?

Yes, this is possible for Office365 and other cloud business applications.
SD-WAN enables local security rules to be applied using a firewall. Cloud security services like Cisco Umbrella and AMP for endpoints can be added to enhance security capabilities.

## How does SD-WAN really save me money?

If, for example, today you have a 50Mb fibre MPLS network, you have expected user growth that requires additional bandwidth. With SD-WAN you can deliver a Business grade nbn™ service to provide extra bandwidth and redundancy at a lower cost.
Then you apply business rules to define what applications use which network link to deliver the best performance.
There are also lower costs for support, changes and reconfiguration to suit changing business needs.
Businesses have access to nbn™ and distributed internet, and are not paying for the service providers' MPLS core infrastructure.
Additionally, businesses realise OpEx improvements by offloading expensive MPLS services with more economical and flexible broadband (including secure VPN connections).

**SD-WAN is all about delivering business solutions and not just providing infrastructure. When you break it down, it promises four things.**

1. **Transport Independence** by virtualising the network to introduce multiple independent network paths;
2. **Application optimisation** via centralised network visibility and control of QOS and bandwidth to improve productivity and user experience;
3. **Intelligent path control** with policy based routing including automatic best path selection based on loss, latency and jitter to help ensure high network availability;
4. **Secure connectivity** using AES encryption to help secure communication with cloud applications, remote office and data centres.

## Could you provide some understanding of the scale of the nbn™ roll out, the services it affects and customers it impacts?

Currently the nbn™ connects over 5 million homes and businesses to the internet, with approximately 1.5 million connected in the last 12 months alone. This impacts the legacy PSTN/ADSL services as nbn™ becomes available these services will be disconnected and migrated to the nbn™.

Once a postcode has been approved for nbn™ rollout, businesses have 18 months before their services are cut off. Special services may have an additional 6 months.

## We've heard about business nbn™ solutions, can you give us some insights as to how the nbn™ is being used in networking decisions and what are nbn™ business solutions in this context?

Business Grade nbn™ services – TC2 – provide a cost-effective way to deliver connectivity to enterprise leveraging the nbn™ network. This service enables symmetrical nbn™ services that can be used for mission critical apps while a TC4 service can be delivered to provide internet connectivity.

nbn™ also provide project management services for large service rollouts to assist service providers in the migration and deployment of nbn™ networks.

## What should customers consider and how should they prepare for a transition to the nbn™?

Customers should consider their application performance requirements and how users access these apps. It's important to consider Office365 and other SaaS products that are heavily dependent on the internet.

## If SD-WAN makes everything so easy, why do we need a Service Provider?

SD-WAN does make it easier for enterprises to manage their network. Having a service provider that is carrier agnostic and understands the available options means your business has access to the best services at the best prices.

Service Providers provide backup support when things do go wrong, and when businesses lack internal resources or platforms.

**The business nbn™ accredited adviser capability means that Comscentre have a team of product, consulting and engineering experts with an intimate knowledge of the nbn™ access network design and its application within the business environment. Contact us today.**

**Comscentre roundtables are held regularly, register your interest in our next executive luncheon.**