

CHAMPIONING INFRASTRUCTURE INNOVATION: A GUIDE FOR IT LEADERS



WHITE PAPER



aruba
a Hewlett Packard
Enterprise company

As we move through 2020, the leaders of 'mid-size' businesses (between 100 and 999 employees) face an array of challenges. Among these are IT complexity, security and the ever-increasing and evolving needs of employees and customers, particularly as we move towards virtual office spaces.

While the solution to a lot of these challenges lies in evolving the business' network infrastructure as a first step, a siloed and patchwork approach is not uncommon. As a result, many businesses lack a cohesive approach and are stifling their overall innovation and growth.

To thrive in 2020 and overcome these challenges, mid-size businesses need to take a consolidated approach, and make network evolution or innovation a priority for the entire business – not just IT.

This eBook will outline some of these key challenges and offer some recommendations for engaging your business leaders – so you can achieve a more holistic and effective approach to innovation in 2020.

“2020 is ... a testing time for ANZ business leaders. They need to ask themselves important questions like 'is innovation at the core of our business planning?' ”

– PWC, Australia Matters¹

WHAT CHALLENGES ARE BUSINESS LEADERS FACING?

2020 is certainly a testing time to be leading a business. With the COVID-19 pandemic, customers now, more than ever, are uncertain, growth is slow, disruption is rife and market confidence is down.

Mid-size businesses, in particular, face unique challenges - many of which are common across diverse industries and models. Most importantly, when it comes to technology and innovation, smaller businesses often lack the budget and resources which enterprises have at their disposal. This is despite the fact that technology has the power to level the playing field for many mid-size businesses, giving them the agility and scalability to compete with much larger organisations.

Other specific challenges faced by many mid-size businesses include:

EXPLODING DATA VOLUMES

In today's world, data can be pulled from a huge range of systems, applications and devices. While this data can be incredibly valuable and deliver all-important insight, it can also be quite overwhelming. From a network infrastructure perspective, many businesses struggle to capture, analyse and use the huge volume of data they have at hand. This can become an issue for leaders across the business, particularly IT leaders who are charged with the ongoing management, security and analysis of this data.

The situation is also being exacerbated by the ongoing and very rapid growth of the Internet of Things (IoT). In fact, it's estimated that by 2030 there'll be 50 billion connected devices - and many traditional networks won't be able to easily support this volume².

In addition, a lot of data is now generated and processed at the 'edge' of the business (via connected devices) rather than in a traditional, centralised data centre or cloud environment. Gartner predicts that by 2025, this amount of data will grow from 10% to 75%³.

IT IS BEING CIRCUMNAVIGATED

As users' needs increase in scale and complexity, shadow IT is on the rise. This can be due to all kinds of factors: the IT department lacking sufficient resources to respond to requests for new applications at an anticipated pace; existing technology being too cumbersome or hard to use; or the business having overly rigid rules and restrictions in place.

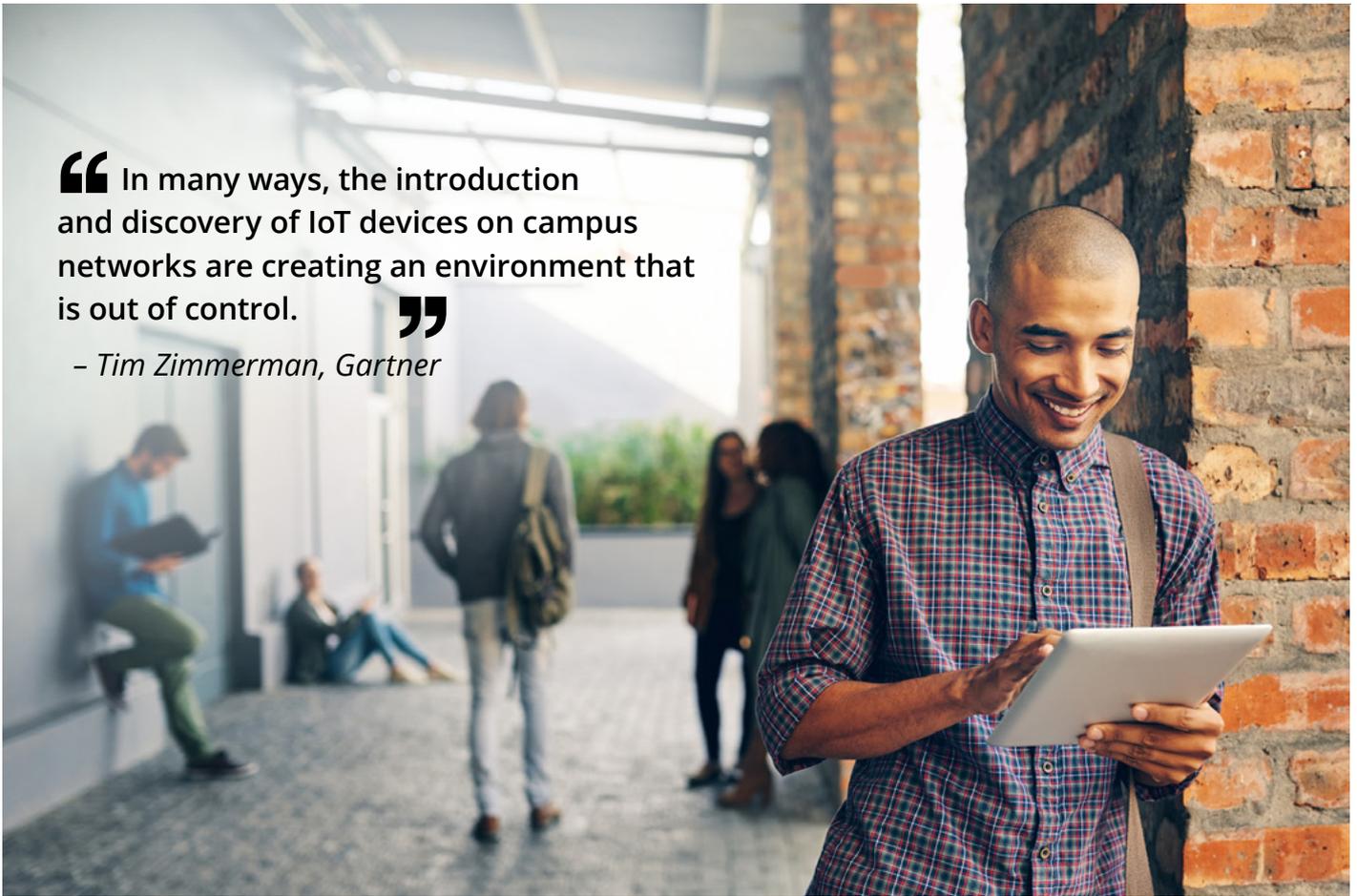
As a result, many users are circumnavigating IT and taking their technology needs into their own hands, which poses all kinds of security and control issues for IT leaders across all kinds of industries. The problem is enhanced in businesses where IT resources are particularly constrained.

Shadow IT can be bad news. For IT teams already under pressure, it can pose security and compliance risks and can quickly lead to data breaches. This can have a flow-on effect for other business leaders, including human resources, legal and finance. This is particularly the case if the business stores and uses data which is of a sensitive nature - such as medical or legal data, or that pertaining to children.

In a recent study, 80% of organisations noted that they found IoT devices on their networks that they did not install, secure or manage. Internet connected devices can also be hacked in as little as three minutes, and breaches may take six months or more to discover⁴.

“ In many ways, the introduction and discovery of IoT devices on campus networks are creating an environment that is out of control. ”

- Tim Zimmerman, Gartner



EMPLOYEES CAN BE A SECURITY RISK

In recent years, a significant threat to security has emerged from employees themselves, many of whom inadvertently jeopardise network security. As well as being an IT issue, this is also an issue for human resources leaders.

In fact, among businesses that faced cybersecurity incidents in the past 12 months, 11% of the most serious types of incidents involved careless employees⁵.

Employee behaviour is becoming a serious concern for mid-size businesses, with 52% admitting that employees are their biggest weakness when it comes to IT security⁶.

In a recent survey, business leaders said they worry most about employees sharing inappropriate data via mobile devices (47%), the physical loss of mobile devices exposing their company to risk (46%) and the use of inappropriate IT resources by employees (44%)⁷.

As threats are changing constantly, businesses need to stay on top of the ever-evolving landscape. Most leaders recognise it needs to be a whole-of-business consideration, but are unsure what steps to take next.

EVER-EVOLVING EMPLOYEE NEEDS

Work is fast becoming an activity rather than a place, and many workers now refuse to work for organisations that don't provide flexible and remote working options, including the latest Wi-Fi and connectivity services. For this reason, ensuring a positive employee experience now needs to be a major priority for mid-size business owners who want to attract top talent.

Left unaddressed, poor infrastructure can directly contribute to higher levels of customer and staff churn⁸ - a major issue for today's human resources leaders.

Conversely, mid-size businesses that do provide a positive employee experience can gain many advantages. According to a recent study, organisations with the most compelling workforce experiences saw 22% higher engagement among their workers than those without. These workers who felt engaged were also four times more likely to stay in their jobs⁹.

MODERN CUSTOMERS DEMAND MORE

Just as employees have ever changing needs, so do customers. At the same time, many customer interactions are also now happening on the 'edge' of the network, where physical and digital intersect, rather than via the data centre or in the cloud. An interaction in the 'edge' could, for instance, be where a customer enters a store and logs on to guest Wi-Fi; where a worker connects to the corporate network; or where a patient or visitor in a hospital uses the facility's guest internet service.

This means that for many mid-size businesses, the challenge lies not only in capturing this data, but also in understanding and responding to these ever-evolving requirements in a way that's beneficial for the customer, and the business.

However, according to a recent Deloitte survey conducted by Forrester Consulting, many businesses aren't taking a consolidated approach to this customer-generated data – which is negatively affecting the customer experience¹⁰.

"Faced with unconnected data from many sources, housed in tools that are often not connected, companies are challenged to understand their customers. Companies on average have 17 different technology applications leveraging customer data, with an average of 28 different data sources used for generating customer insights and engagement," according to the report¹¹.

EXISTING INFRASTRUCTURE IS LACKING

Unfortunately, many mid-size organisations are also still operating with dated infrastructure, despite it being a major priority for IT. There is also often a serious mismatch between innovation targets, internal skillsets and resources.

Cloud managed infrastructure, for instance, offers all kinds of benefits but, many organisations lack an effective strategy, or fail to migrate the right applications in the right way. According to a recent Deloitte report, 90% of Australian businesses report challenges in the transition to cloud services, including in educating staff, changing over from legacy systems and costs¹².

With dated infrastructure, it also becomes difficult for businesses to embrace technology innovations like Wi-Fi 6, IoT capabilities, or cloud managed advantages.



ARUBA HELPS CHRISTIE SPACES CREATE A SMARTER, DIGITAL WORKSPACE

Christie Spaces is a leading provider of lettable office spaces and has properties in Sydney, Brisbane and Melbourne. The business strives to provide members with high speed internet, the ability to access resources on the fly and the ability to seamlessly book a room.

To deliver on these requirements, the business engaged Aruba to deploy a pervasive enterprise network.

With so many users, devices and apps connected to its network, Christie Spaces leveraged Aruba technology to gain valuable network insights through granular visibility into wired and wireless network components.

Aruba's ClearPass solution enables Christie Spaces to create a network that follows the user from desk to desk and building to building. Members can have their own private networks and log in to access their cloud resources, regardless of where they are working. ClearPass also ensures secure network access control, with a context-based security model that allows a network access policy to be set and then rolled out across the entire network.

“The mismatch between the skills people have and those needed for the digital age is fast becoming one of the world's most pressing problems; Australia has plenty of catching up to do.”

– *Australia Matters, PWC*¹³

HOW TOP PERFORMING MID-SIZE BUSINESSES ARE ACHIEVING THEIR GOALS

In order to scale and grow effectively, it's essential that businesses work together and take a consolidated approach to innovation. Innovation can no longer be siloed or 'patchworked', and a productive relationship between disparate teams within the business is essential.

Here are some common approaches that top performing mid-size businesses are taking when it comes to working together to achieve infrastructure innovation:

IMPROVING SECURITY THROUGH CONSOLIDATION AND AUTOMATION

Staying ahead of the ever-changing threat landscape requires taking a more strategic and automated approach to security – one that recognises that the majority of threats now come from the 'edge'.

Employees are becoming increasingly mobile and unpredictable. As a result, businesses readily lose visibility and control across locations, devices and behaviour. Solving this with traditional security software is a losing battle. Instead, you need to be investing in infrastructure that pulls double-duty as a security solution.

How Aruba delivers improved security:

Aruba's networking solutions are inherently secure, which means you have greater control and peace of mind. They have a 360-degree security fabric, which includes AI-powered detection of threats and attacks. Aruba security is also highly scalable and 'always on', so you can also keep pace with the explosion in IoT and associated data volumes. Plus, you also get a unified approach to security across both your wired and wireless infrastructure.

MODERNISING THE NETWORK

To get results in 2020, businesses need to take a strategic yet modern approach to network architecture. Today, networks need to have an 'edge-in' architecture - where diverse endpoints are connected and combined with context to enable and protect everyone and everything.

How Aruba can help with modernisation:

Aruba networking solutions offer edge-to-cloud architecture, and are also mobile, cloud and customer first – delivering a positive experience for both users and IT teams.

Importantly, with an Aruba networking solution in place, businesses can leverage Aruba Central – which offers unified visibility and control via a single pane of glass. With real-time insights, you can stay on top of performance, experience and security.

Plus, when paired with Aruba Clearpass, it's simple to enable real-time policies for how users and devices connect and what they can access – meaning businesses can grow as they need to and always be ready for what's next.

ENSURING EMPLOYEES ARE SUPPORTED AT ALL POINTS

In order to scale and meet growth ambitions, a digital workforce is essential, meaning employees need to be brought along on the journey.

Evidence indicates that mid-size organisations that achieve successful digital transformation are also better positioned to attract the best people. Digitally savvy employees are 60% more invested in learning than digital laggards; they're also healthier and 70% happier as they enjoy better work/life balance¹⁴.

How Aruba networking helps the employee experience:

Aruba networking technologies can help your business support your employees by providing a modern network that's 'always on', allowing you to run mission critical data and providing enhanced security. Automation and self-healing in Aruba networking also means problems can be very quickly resolved without manual intervention - ensuring high performance in dense environments with a great user experience.

INVESTING IN A CLOUD MANAGED NETWORK

To cope with the ever escalating amount of data, automated management is becoming increasingly essential for mid-size businesses.

How Aruba can help:

With an Aruba networking solution, businesses can manage their entire infrastructure via Aruba Central – a single pane of glass, with a 3-step onboarding wizard, zero touch provisioning, a mobile app and reporting capabilities for managing distributed environments at any scale.

Predictive analytics and deep insights ensure that IT has continuous visibility into how the Wi-Fi network is performing. Insights can then be used to optimise the network for improved performance, service availability and a seamless end-user experience.

Plus, Aruba's ClearPass Device Insight solution utilises machine learning for enhanced device profiling. As devices connect, they are automatically identified and categorised, which allows IT to create appropriate enforcement rules on any wired or Wi-Fi network.

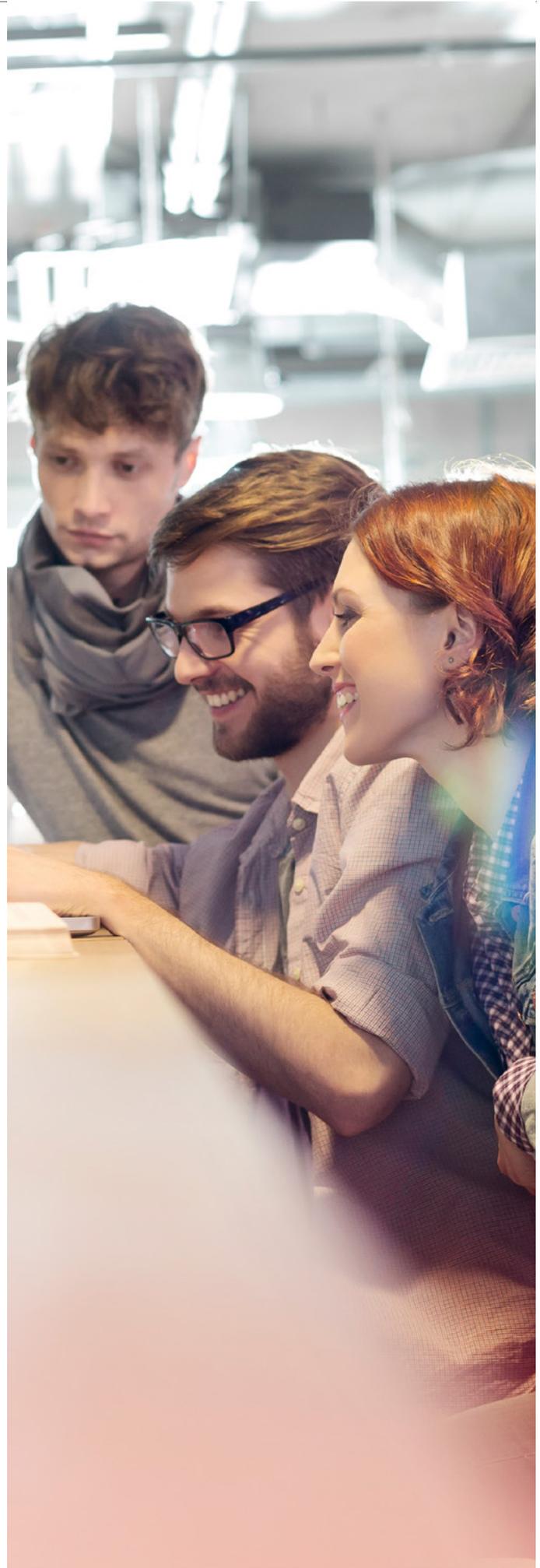
WHY ARUBA?

Aruba is the only solution that can connect multiple strategic priorities such as digital employee and customer experience, security and business growth, without draining IT budgets and resources – as it supports innovation at the core of the business.

Aruba networking technologies are designed to drive innovation at the speed of your business so you can deliver amazing experiences and elegant simplicity – in every situation. Aruba also delivers full migration services to ensure successful deployment and interoperability within a mixed networking environment as well as expandable solutions – so you can stay future ready.

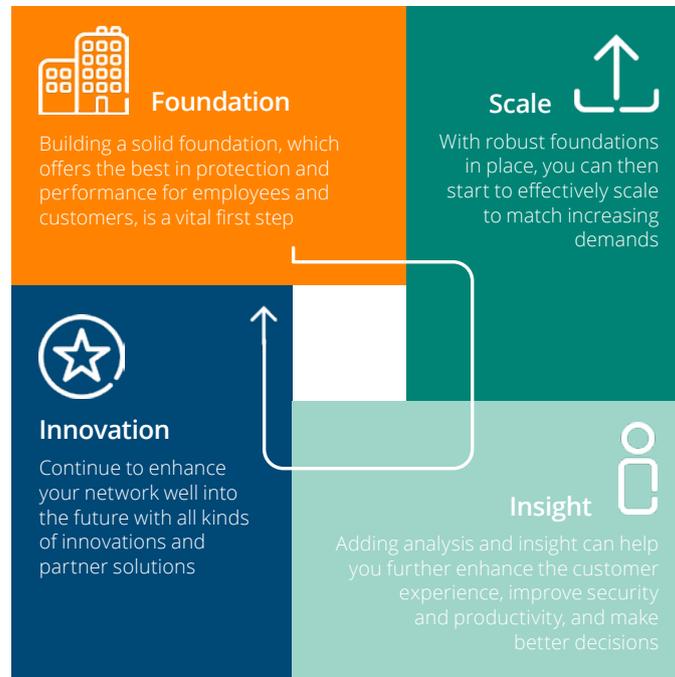
Aruba is consistently recognised as a market leader – and was recently named a leader in Forrester's New Wave™: Wireless Solutions report (Q3 2019); a leader in IDC's MarketScape report (2019); and a leader in Gartner's Magic Quadrant for the Wired and Wireless LAN Access Infrastructure report (2019).

Plus, Aruba offers a network of trusted partner experts, like Blue Connections, to help you to build your own roadmap so you can successfully transition to a digital workplace.



THE PATH TO INNOVATION: KNOWING WHERE TO START IS HALF THE BATTLE

When it comes to evolving your infrastructure so as to put innovation at the centre of your business, there are 4 clear phases:



PHASE 1: FOUNDATION

As a first step, it's important to build a solid network foundation in which everything is connected, secure, optimised for the user experience, and easily managed. In order to prepare for the future, and the ever-expanding data loads presented by the IoT, you need to be ready. This means starting out with a network solution which is agile, flexible and which offers the best in protection, plus caters for the needs of customers and employees. Aruba's cloud managed network solution also takes the burden away from IT teams, and provides greater efficiency, security and control.

PHASE 2: SCALE

Once a solid foundation has been built, you can then scale easily and quickly as your business evolves. An Aruba networking solution can perform just as well for one site as it does for many, and can be scaled incredibly easily and effectively. This means that if you need to expand to a larger site, or launch new sites, the process becomes straightforward. You may, for instance, wish to incorporate SD-WAN, or add additional applications to your infrastructure as you grow.

PHASE 3: INSIGHT

As your business grows, insight becomes increasingly important. Insight can help enhance the employee and customer experience, as well as improve security and productivity, and ensure better, faster decision-making. Aruba's networking solutions incorporate machine learning and artificial intelligence, for ongoing and ever-evolving insight. Aruba's Clearpass Device Insights service can also offer detailed information about what's happening on the network, and Location Services can be included if there is a need to engage customer or users by providing location awareness information.

PHASE 4: INNOVATION

It's impossible to know what the future holds, but a network built with a solid Aruba foundation can ensure your business can thrive and adapt. In this phase, you may wish to enhance your network infrastructure with other solutions from the Aruba partner ecosystem.

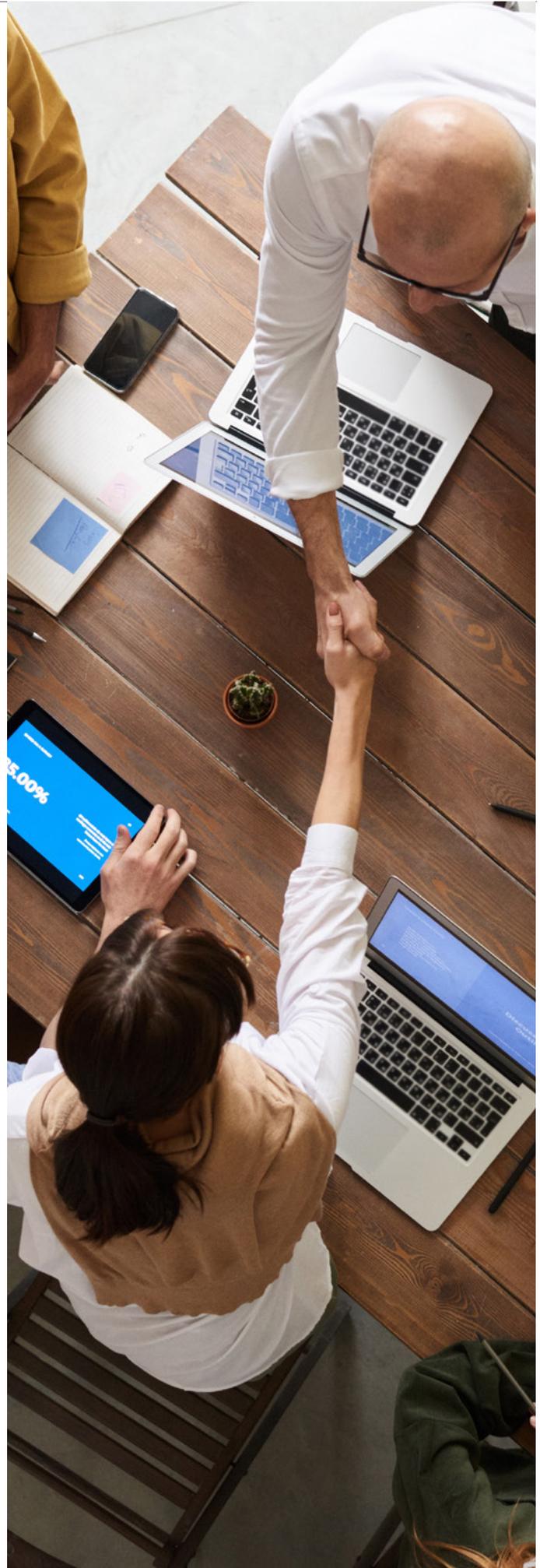
Automation of key tasks also becomes increasingly important – with greater automation bringing greater scalability and agility to the business overall.

HOW BLUE CONNECTIONS CAN HELP

Blue Connections is a provider of best-in-class IT solutions to Australian enterprises and local and state government departments. Through our partnership with Aruba, we deliver robust and scalable network solutions that help our clients provide a better experience for their employees and customers.

When you work with us, you benefit from our:

- **Experience** – we have provided Aruba networking solutions for some of Australia's best known and established companies, as well as organisations navigating the challenges of business growth.
- **Customised approach** – we created tailored technology solutions that support your desired business outcomes, to allow you to focus on what you do best.
- **In-house team** – all our work is completed in-house, through our dedicated Networking, Security and Unified Comms team which has deep understanding of Aruba technology and how it can benefit our clients.
- **State of the art facilities** – our new, custom built premises allows us to warehouse more customised solutions and includes a dedicated build area, decommissioning facility, vendor training capabilities and an end user Experience Centre.
- **Range of services** – Blue Connections design, supply, implement and manage end-to-end technology solutions and services specialising in procurement, professional and managed services, staff augmentation and lifecycle management.
- **Managed services** – through which our clients can leverage a fixed monthly cost per nominated device, and receive proactive management of their technology needs, with 24/7 support available.
- **Dedicated Networking, Security and Unified Communications team** – which provides support across all our services teams, as well as expert network/security monitoring, wireless design/implementations, telephony systems, outdoor long range wireless point-to-points, CCTV surveillance, security PEN testing, network cabling, WAN design and deployment, and more.



HOW BLUE CONNECTIONS AND ARUBA HELPED AN AGED CARE PROVIDER WITH ITS NETWORK

Blue Connections and Aruba recently partnered to provide a new networking solution for one of Victoria's largest aged care providers.

The challenge

The existing network was dated and inefficient and the provider wanted to enhance connectivity, security and reliability for staff, visitors and patients (both for indoor and outdoor environments).

The solution

Blue Connections worked closely with the provider to understand their specific technical requirements and used a third-party wireless site surveying tool to understand the limitations of the existing service. We then composed a detailed design which involved:

- **Re-designing the switching topologies** – so resilience, security and performance was incorporated into every network using technologies such as switch stacking, link aggregation, VLANs and access-control lists.
- **Installing a new wireless network** – scoped so the 5Ghz spectrum was reserved for critical traffic such as voice and corporate traffic.
- **Future-proofing the network for wireless device support** – by implementing Wave 2 Access Points.
- **Providing robust security and guest network access** – using Aruba ClearPass for 802.1x capabilities and captive portal onboarding, with Aruba AirWave for remote monitoring, management and reporting.
- **Implementing troubleshooting capabilities** – with Airwave making it possible to pinpoint problematic stations and diagnose wireless issues on the fly and historically.

The result

The install was a national rollout, fully project managed by the team at Blue Connections. This was an incredibly successful upgrade using HPE Aruba switching and wireless technologies. Gained efficiencies include:

- **Improved performance** of the wireless network across all of the organisation's sites
- **A modern network** that's now future-proofed for new technologies and enhanced performance
- **Centralised management** and more robust control of the wireless network
- **Advanced user on-boarding** to the wireless network, for both staff and guests
- **Effective verification testing**, post instalment of the wireless network, which confirms Blue Connections' design methodology

WANT TO FIND OUT MORE?

To learn more about how Blue Connections can help your business implement an Aruba networking solution, get in touch on **1800 659 477**.



aruba
a Hewlett Packard
Enterprise company



1. Australia Matters, PWC: <https://www.pwc.com.au/australia-matters> **2 & 8.** Aruba, What is 802.11AX (Wi-Fi 6)? And why you need it: https://www.arubanetworks.com/assets/so/SO_80211ax.pdf **3.** Gartner, What Edge computing means for infrastructure and operations leaders: <https://www.gartner.com/smarterwithgartner/what-edge-computing-means-for-infrastructure-and-operations-leaders/> **4.** Aruba, Top 7 requirements for a next-gen edge-ready network: <https://blogs.arubanetworks.com/spectrum/top-7-requirements-for-a-next-gen-edge-ready-network/> **5 - 7.** Kaspersky, The Human Factor in IT Security: <https://www.kaspersky.com/blog/the-human-factor-in-it-security/> **8.** Deloitte, Digital transformation – Improving digital employee experience: <https://www2.deloitte.com/us/en/insights/topics/digital-transformation/improving-digital-employee-experience.html> **9.** Deloitte, How to win on customer experience, 2019: <https://www.deloittedigital.com/us/en/offerings/customer-led-marketing/advertising--marketing-and-commerce/hux/how-to-win-on-customer-experience.html> **10 & 11.** Deloitte, How to win on customer experience, 2019: <https://www.deloittedigital.com/us/en/offerings/customer-led-marketing/advertising--marketing-and-commerce/hux/how-to-win-on-customer-experience.html> **12.** Deloitte, The economic value of cloud services in Australia, 2019: <https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Economics/deloitte-au-economics-value-cloud-services-australia-230719.pdf> **13.** Australia Matters, PWC: <https://www.pwc.com.au/australia-matters> **14.** Aruba, Beyond Productivity: The Human Side of the Digital Workplace Quantified: <https://news.arubanetworks.com/press-release/beyond-productivity-human-side-digital-workplace-quantified>