

Never blame the Wi-Fi

How investing in a modern, high-speed wireless network could transform your workplace and ensure you're future-ready



The demand for fast, reliable wireless access has gone from being a 'nice to have' to an utter necessity.

Modern employees already have extremely high expectations when it comes to their wireless connectivity. To do their best work, they need to be able to connect quickly and seamlessly, via a broad range of devices. In fact, Wi-Fi is now the primary way users and devices connect, and cloud-based voice and video apps are the most common way for us to collaborate.

Now, however, with the majority of Australians working remotely (88% of Australian organisations asked employees to work from home due to COVID-19 and many continue to do so) businesses are under even greater pressure to ensure their network is providing the connectivity that employees need. A poor wireless network has the potential to seriously affect the customer and employee experience.

At the same time, there are a growing number of devices connecting at the edge of corporate networks – which means the efficiency of the wireless network, and how it handles congestion and ever-increasing capacity demands, has become a key consideration.

With existing networks under pressure, an Aruba wireless network solution from Blue Connections can deliver the speed, connectivity and reliability that your people and business needs, and prepare you for whatever the future holds.



What are the key pressures on the modern network?

There are several reasons why modern networks are under pressure. These include:

Greater employee expectations

Having a robust and straightforward connection is no longer a convenience, but a necessity. To do their best work, today's employees need reliable and around-the-clock access – without interruption, and many will quickly turn away from businesses that can't provide the level of connectivity or network performance they need.

Bandwidth-intensive applications

Locations with a growing density of bandwidth-intensive applications, such as offices, shopping malls, convention centres, transportation centres and other public venues, can often experience wide-ranging performance and latency issues. While individual access points can connect hundreds, or even thousands, of client devices, a heavy amount of traffic generated by just a fraction of devices (e.g. virtual reality headsets) can lead to problems.

Rise in BYOD

Most businesses now have some kind of BYOD policy, and employees expect to be able to connect their own devices to their work's wireless network. Often, employees bring multiple devices too. In fact, a modern employee connects to their workplace network using an average of three separate mobile devices.² This places enormous pressure both on IT teams, and on corporate networks, which need to interact with a myriad of ever-changing devices and users.

Growth in IoT

Today, businesses of all sizes are seeing an explosion in the number of IoT devices that are connecting at the edge of their network. According to a recent analyst report,³ demand for connected devices is expected to unleash over 40 billion IoT devices generating over 79 zettabytes (ZB) of data at the edge (or 79 trillion gigabytes) by 2025.

Users on conference calls are now competing for wireless bandwidth with temperature, lighting and location sensors, as well as surveillance cameras and audio-visual equipment. Gaming consoles, TVs and medical devices must coexist with sensors and other IoT devices used to manage environmental controls, outdoor watering and power use.

All of this is causing applications to generate a larger amount of data using scarce network resources, which can lead to suboptimal performance, higher latency, and growing costs that current infrastructure cannot accommodate.

Diversity of devices and applications

The combination of IoT and BYOD means it's often difficult to optimise a network for just higher performing devices. The network must accommodate both older and newer devices. And with the increasing use of eLearning and collaboration applications, a modern wireless network must be able to handle large amounts of traffic to and from the cloud.

How can an Aruba modern wireless solution help?

With an Aruba modern wireless solution, your business can provide the superior connectivity that your staff and customers expect. Specifically, you can deliver:

Greater speed and efficiency

Traditionally, wireless connections required an entire channel to transmit information from a 'client'. With a modern wireless solution, it's possible to break up the 'air-time' and have multiple clients use a 'time slice' at the same time. In fact, a new Aruba wireless network can be up to four times faster than a traditional network.

Effective roaming

Today, ensuring effective remote connectivity is essential. Aruba Air Pass is a smart feature that provides seamless secure roaming and onboarding. By unifying enterprise and mobile network experiences, Air Pass automatically transitions cellular devices to enterprise networks, effectively eliminating gaps in cellular coverage.

Support for multiple types of IOT devices

Aruba's access points don't just work with new Wi-Fi standards. They also support a range of IoT devices running a range of protocols, including Wi-Fi, Zigbee, Bluetooth and more. This means you can configure your network, and your devices, your way, with the confidence Aruba and Blue Connections can support you.

More consistent experience

A modern wireless solution can also deliver a positive and consistent experience for users – without any manual intervention. This is due to a unique feature within the Aruba wireless software called AirMatch, which uses machine learning to automatically optimise channels, bandwidth and power. Plus, Aruba's access points use AI-powered RF optimisation, as well as rich user and app intelligence, dynamic segmentation and smart management options, to ensure a very positive experience for those connecting to your network.

Intelligent traffic control

Not all traffic on your network will require the same level of connectivity, at the same time. An additional feature within the wireless software called AppRF uses built-in, deep packet inspection to allow IT teams to easily apply quality of service based on traffic, user and device type.

Intelligent power monitoring

For environments where switches don't support Power over Ethernet (PoE) requirements of over 30 watts per port, Intelligent Power Monitoring allows modern wireless access points to intelligently turn off preselected features until the switching environment can be updated.

Client performance optimisation

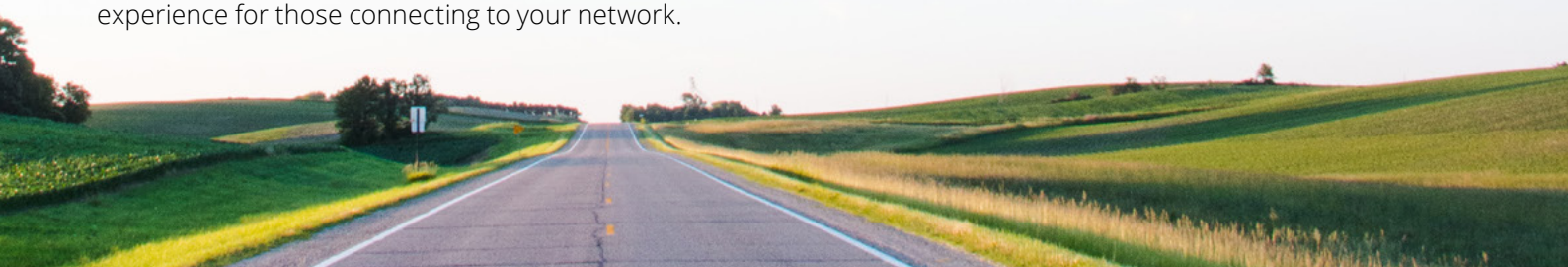
Aruba's patented ClientMatch feature automatically groups modern wireless-capable devices onto available access point radios, so as to take full advantage of the benefits of orthogonal frequency-division multiple access (OFDMA) and multi-user capabilities.

Advanced authentication security

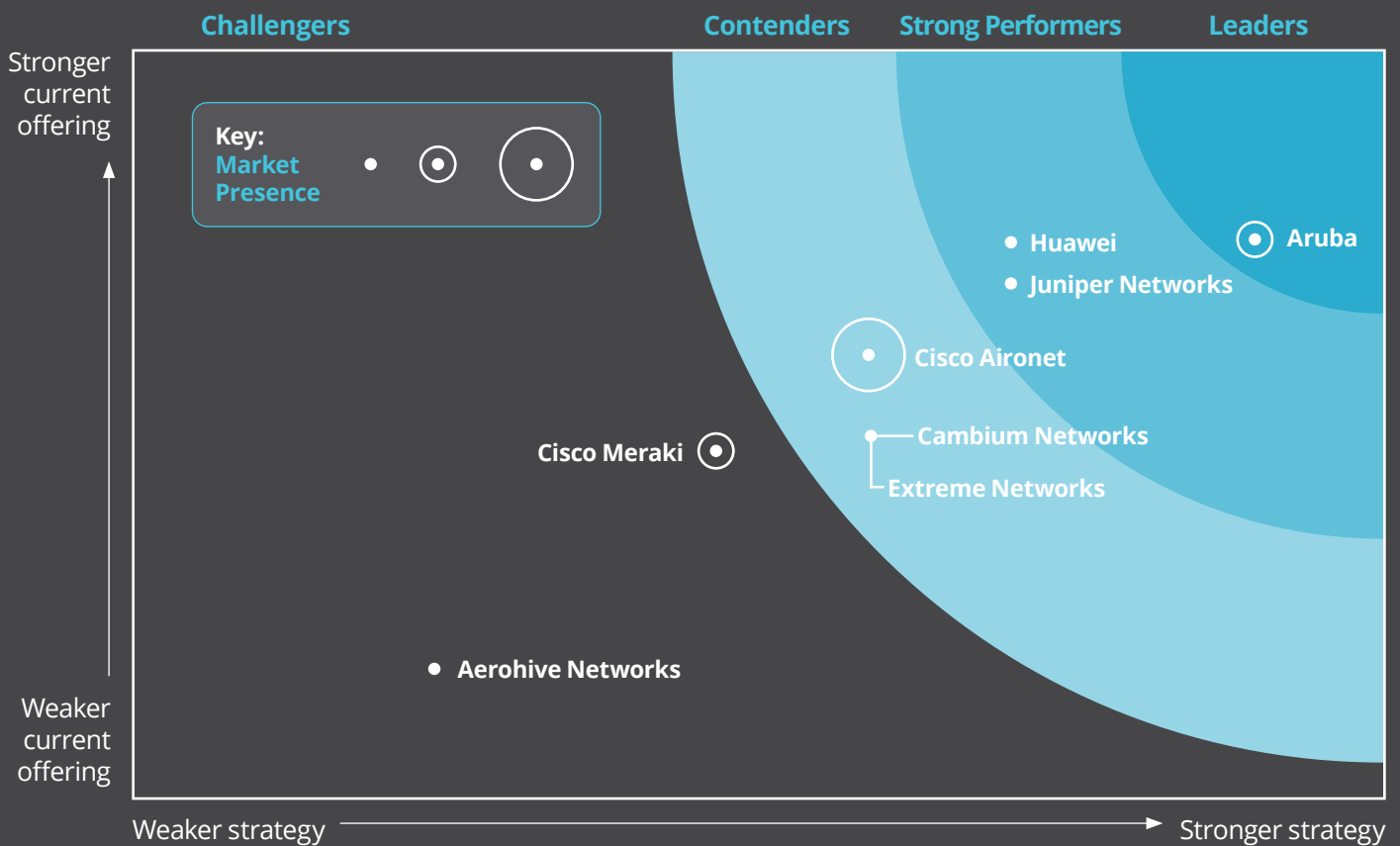
While the modern wireless standard does not specify any new security enhancements, Aruba's new, wireless access points include the security standard, WPA3, and Enhanced Open, which provides protections in scenarios where user authentication isn't wanted, or distribution of credentials is impractical. This makes open networks safer where guest access and shared passwords are used.



Think of a modern Aruba wireless solution as adding more lanes to a freeway, with carpools and buses included to enable people to use the freeway more efficiently and ultimately, relieve congestion.



According to Forrester⁴, Aruba is a clear market leader when it comes to wireless solutions:



Is your business ready for a Wi-Fi upgrade? Ask these questions:

Can you ensure all users have a good experience on your network?

Are you implementing more applications that will support voice and video?

As IoT devices are deployed, how prepared are you for their impact on business services?

Because users connect from everywhere today, are you worried about network access security?

Have you factored in future switching and PoE requirements?

Are you ready for the density of new Wi-Fi standards and older devices that will be connecting to your network?



Customers praised Aruba networks' rich management interfaces, monitoring tools, and location services, especially the ability to connect IoT devices using wireless options outside of just using Wi-fi with Aruba's access points.

Source: The Forrester New Wave™: Wireless Solutions, Q3 2019

Why rely on Blue Connections to deliver a modern Aruba wireless network solution?

Blue Connections is a provider of best-in-class IT solutions to Australian enterprises as well as 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 provide Aruba security and network 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.
- **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** – we design, supply, implement and manage end-to-end technology solutions and services specialising in procurement, professional and managed services, staff augmentation, and lifecycle management.
- **In-house team** – all our work is completed in-house, and we have a Networking and Security team which has deep understanding of Aruba technology and how it can benefit our clients. Our team of dedicated professionals includes sales specialists, professional services staff, technical consultants and managed services staff. We pride ourselves on not using contractors or offshore engineers in every project and support request the team handles.
- **Managed services** – offering 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.

To learn more about how Blue Connections can help your business implement an Aruba wireless solution, get in touch on **1800 659 477** or visit blueconnections.com.au/aruba

