

Block & Juniper Networks in the Public Sector



BLOC 

| **JUNIPER**
NETWORKS

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Technology has revolutionised every aspect of our society and our economy, including the way that we deliver our public services, helping to make people's lives easier and safer. The onset of the COVID-19 pandemic has seen further strides in the use of innovative new technology, such as the NHS COVID Pass which enabled UK citizens to travel, ensuring their health and safety.

Our ambition is to go beyond these pockets of brilliant practice. We must deliver policy that has a real impact on people's lives - not just in a crisis, but every day and for everyone. When people order their groceries, book a holiday or check their bank accounts, they expect and receive a seamless and easy experience. The same should be true of government services.

Heather Wheeler MP
Parliamentary Secretary for the Cabinet Office



Building tomorrow today

The UK government's ambitions to transform digital public services are set out in the 2022 policy paper 'Transforming for a digital future: 2022 to 2025 Roadmap for Digital and Data'. The paper outlines plans to enable the UK to deliver world-class digital technology and systems, while attracting and retaining the best in digital talent.

The paper also calls on public sector organisations to drive value for money to the taxpayer. It is understood that once working practices evolve to embrace the full potential of digital, organisations - will be empowered to work smarter and faster for the greater benefit of citizens.

True digital transformation requires the supporting architecture to be reliable, adaptable and secure. For many organisations, this is still just an ambition. Seeing as network infrastructure is the one platform that binds everything together, the key to enabling the untapped potential in an organisation is robust, reliable network performance.

Day by day, an increasingly dynamic and distributed set of users and devices, with increasingly dispersed applications and workloads, make turning this key ever more mission-critical to both staff and citizens.



Digital Futures. Delivered Together.

Juniper strives to deliver network experiences that transform how people connect, work and live – for the benefit of everyone.

By challenging the complexity inherent in the 5G and cloud era, Juniper solutions power the connections that matter most to populations, from education to healthcare to local government.

Juniper's commitment to improving real outcomes for network teams - and every citizen they serve - makes them an ideal partner for Block. Our shared values and vision for the future mean that we can work together to deliver true transformation.

Block brings experience, energy and creative thinking to everything we do, helping our clients to realise what's possible.



There has never been a more exciting time to be working in networking

As technology continues to empower a new era of possibilities, demand for connected devices will grow in tandem. These include wearable technologies, IoT and sensors - the rapid growth of which smart devices, combined with new edge computing, will create ever more data and exponentially more connections.

The team at Block are highly motivated to help our clients take full advantage of these potent innovations to support better business outcomes, with Juniper a significant addition to the portfolio of options.

Putting smart AI at the heart of things brings to life a level of real-world operational upgrades that once belonged to the realm of fantasy. Juniper brings us closer to making this real.

Tangible benefits of Juniper's AI-driven system:

Agility

An AI-driven, cloud-hosted platform means networks can grow organically and integrate without re-design - saving time, resource, complexity and human error.

When orchestration and infrastructure are configured as Code, release and deployment cycles are accelerated. Policy changes can happen in minutes, across the enterprise, with a vastly lower chance of change failure.

Mobility

When people and devices can move freely across the campus with no fear, with all permissions enabled as if at their home location, a spirit of trust and optimism pervades the organisation.

Your Wi-Fi should work as an always-on backstop, ensuring uptime and availability of critical service and enabling a consistent experience for staff and service users during network upgrades and component failure.

Visibility

When analytics and network telemetry are centrally aligned, everyone knows the exact state of play at all times.

Seeing at a glance which systems are up or down gives a richly contextual view of performance and usage, while faster troubleshooting reduces incident resolution times by as much as 70%.

Security

Monitoring medical devices and operational tech on the network means granular control of traffic - across devices, user groups and servers.

This extra layer of cyber-resilience protects critical data, reduces the attack surface and reduces the risk of any attack pervading the environment.

It's not a fair fight

There's no question that digital transformation initiatives herald massive opportunity. They also add complexity - to campus, WAN, datacentre and cloud networks.

Networking now spans multiple, increasingly complex domains, with ever-expanding security and compliance requirements throughout. Networks must also adapt to workload mobility, secure every endpoint and still strive to meet all business requirements.

The growing dependence on digital as the default way of working, especially in Healthcare, adds to this complexity. The need for constant uptime across the network is a given. As well as increasing the need for availability across the campus, the exponential growth of connected devices has entirely changed the security landscape, thanks to a growing attack surface and far higher threat levels.

Teams often struggle to balance this complexity with traditional management methods. A lack of time and investment in both technology and development often prevents them adopting modern approaches to infrastructure. It's not been a fair fight.

There is a better way.



The key drivers for network transformation



Easier, Better, Faster Service

A software-defined, policy based network allows you to deliver new services, devices and applications in a faster, more secure way, giving better visibility of the network without compromising on compliance.



Robust Security

A rise in both public wireless access and personally identifiable data means that the network solution must be built with the appropriate architecture, controls, processes and tools to secure data, both at rest and in motion.



A Cloud-First Strategy

A move from an on-premises to a hybrid cloud environment, with increasing adoption of cloud services, means that a refresh of the network must align to the datacentre strategy and 'as-a-service' requirements, like the EHR in healthcare.



Standards and Compliance

A need to meet compliance and security standards such as CareCert, NIS, NCSC CAF and Cyber Essentials Plus means that it is imperative to engage with a partner who understands the requirements within the public sector.



Mobile and Remote Access

An increase in demand for mobile working and having a workforce that can work from anywhere, means that reliable and secure remote access, with policies that follow users so that they can work without borders, is a must.



Adoption of New Technology

The availability of new IoT and mobile devices, coupled with a rise in demand for Wi-Fi, means there will be a preference and need for available, secure and reliable wireless connections.

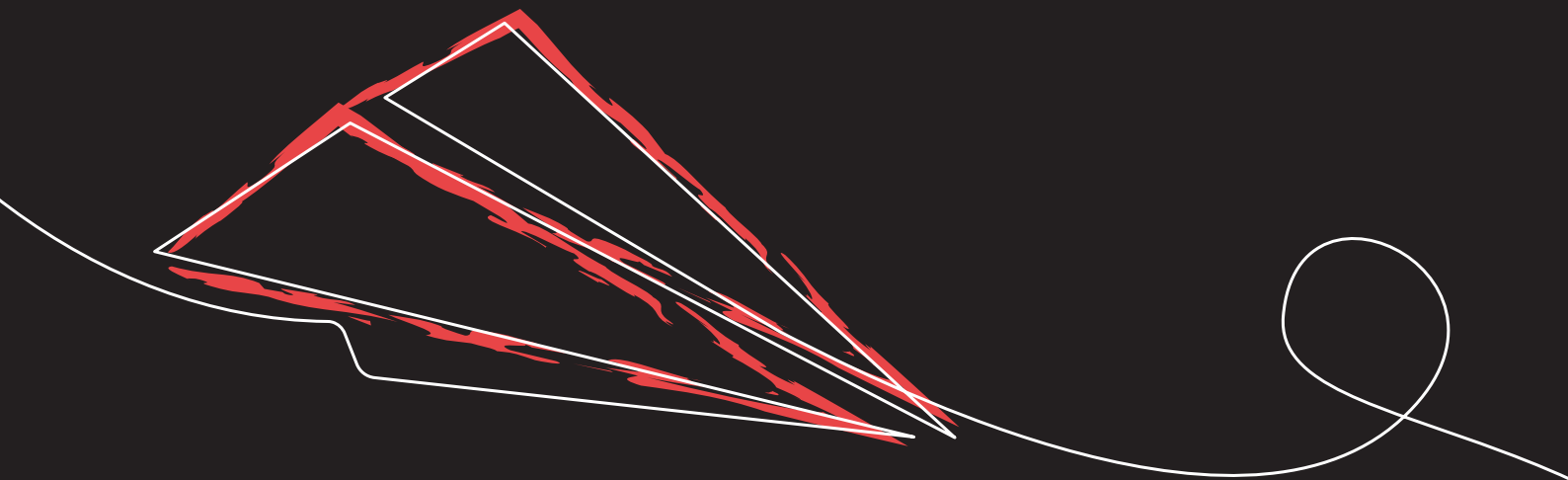
A Future Ready Network

In the 'real' world of legacy IT provision, each network domain serves a unique set of requirements. The campus network handles wired and wireless clients with high mobility demands and varying identity mechanisms; the WAN finds the most efficient route through the multiple connectivity options; the datacentre delivers server-to-server bandwidth and control, integrating with virtual machines and container environments.

A Future Ready Network stitches these fabrics together – automatically and seamlessly – unlocking the full potential of the network and effectively helping to manage expansion in mobile, IoT, cloud, and security technologies.

This more holistic infrastructure model also affords organisations the opportunity to tackle the performance, security, and management challenges associated with highly distributed applications, data, users, and devices. The automated integration of policy between domains preserves domain uniqueness whilst still providing consistency and simplified management.

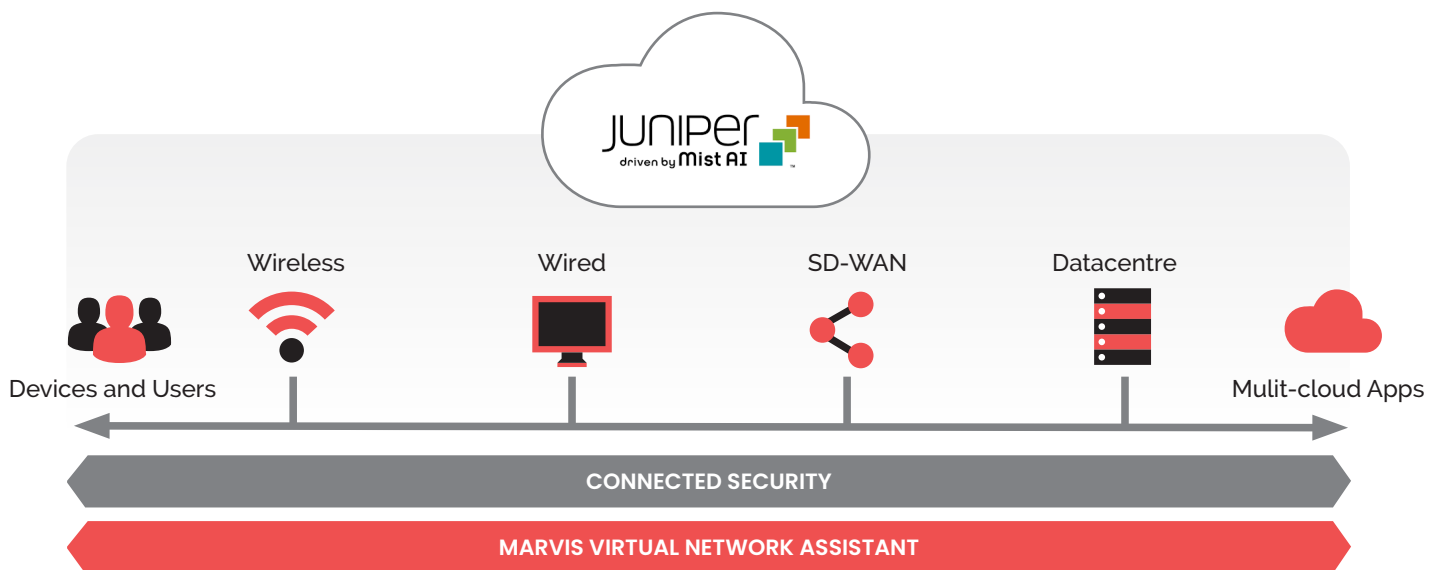
At the same time, network innovation has evolved to embrace a more software-centric approach. This brings a constant release-cycle of smart features and capabilities that continue to enhance and optimise network operations, often with no conscious input from the user.



Powered by Juniper

Block's partnership with Juniper helps ensure our clients' networks are consistently providing the best user and operator experiences.

Juniper call this 'Experience-First Networking'. Driven by their proprietary Mist AI, it's pioneering a new era of IT with simplified operations, unprecedented scale and the best user experiences, from client to cloud.



A Platform for Digital Innovation

- ▶ Open APIs allow integration with 3rd party software
- ▶ Architecture built for growth and agility
- ▶ The ability to measure and metric user experience
- ▶ Integrated location services

Better Network Operations

- ▶ AI- automated to reduce mistakes
- ▶ Fewer tickets for the service desk
- ▶ Faster Mean Time to Resolution (MTTR)
- ▶ AI-Driven operations for proactive support and root cause analysis

By simplifying the transition to secure, AI-driven, globally connected networks, Juniper challenges the inherent complexity that currently comes with networking and security in a multi-cloud era – ushering in a new dawn of **seamless, simple service**.

From reactive to proactive; a huge step-change

Juniper's unique expertise in AI and automation dramatically improves how operators are able to configure, troubleshoot and maintain their networks.

Juniper have flipped the reactive, often frustrating 'help desk ticket' model to a proactive system, where most potential problems are solved before they even reach the end user.

Clients are seeing a reduction of up to 90% in help desk tickets. Time spent on addressing network issues can now be spent on strategic initiatives, learning new technology and building new capabilities.

Because the Juniper Mist Cloud is built on a micro-services architecture, the latest innovations are automatically applied upon login, with new capabilities added every two weeks without taking down the network.

Juniper's **AI-Driven Enterprise** is now available across the full stack of wireless, switching, SD-WAN and security.

Meet Marvis

Marvis is the Juniper Virtual Network Assistant, providing organisations with the additional capability to perform on-demand analytics within their own IT teams.

Marvis is purpose-built with Mist AI for enterprise WLAN, LAN and WAN networks. It applies natural language, so users can directly interact with the Mist AI engine. Network operations are transformed from reactive troubleshooting to proactive remediation through self-driving actions.

This effectively puts the skills of a wired and wireless network engineer in your hands. Marvis increases IT efficiencies, minimises support tickets, and reduces time to resolution. As AI for IT Operations (AIOps) continues to accelerate, Marvis empowers organisations to manage IT operations at scale, efficiently and accurately.

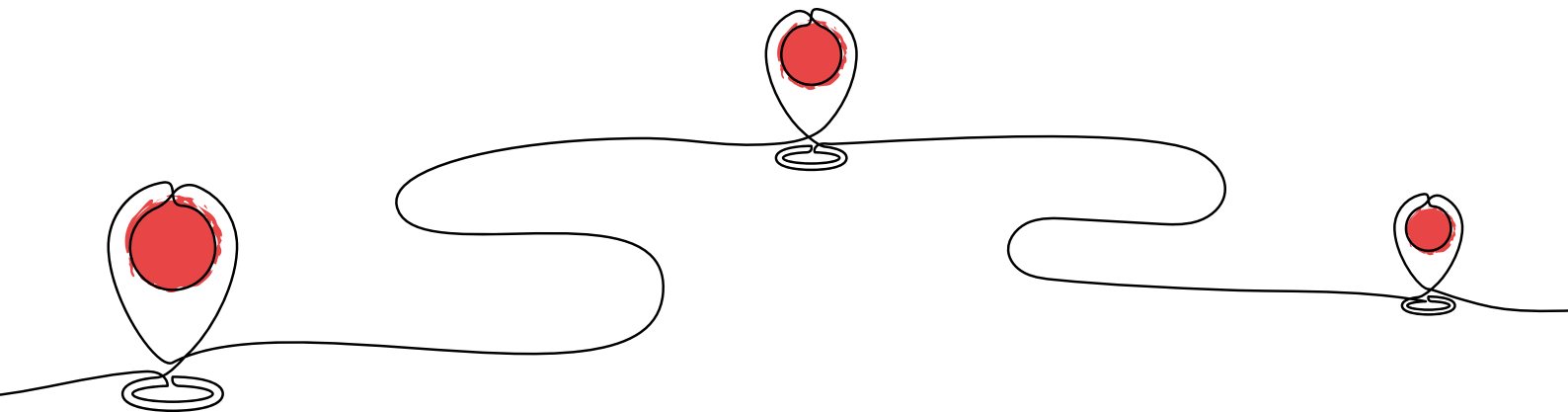
If you can't tell where it is, it's not an asset

State-of-the-art equipment tracking/mobility analysis is integrated into all Juniper-powered Block networks.

Traditional tracking required Wi-Fi-enabled tags to be attached to devices – expensive, and in need of regular (often daily) recharging. Juniper's Mist AI platform uses Bluetooth Low Energy (BLE) tags instead – bringing lower cost, longer battery life (years rather than hours) and far greater accuracy – to the nearest metre.

Juniper Mist is the only vendor with a patented virtual BLE radio, enabling pinpoint accuracy without the need for additional physical hardware or any manual intervention.

Juniper Mist also integrates out-of-the-box with specialist providers of asset tracking software such as Zebra, AirstaFlow and Stanley Healthcare.



Improve experiences and revenue

- ▶ Real-time wayfinding with accurate (1-3m) turn-by-turn navigation
- ▶ Real-time proximity notification and alerts
- ▶ 100% programmable via the software-development kit (SDK)

Locate assets and gain insights into workflows

- ▶ Identify assets by name and view location
- ▶ Zonal and room accuracy for third-party tags
- ▶ APIs for viewing assets and analytics

End-to-end visibility and business insights

- ▶ End-to-end network visibility
- ▶ Orchestrated networking and application performance queries
- ▶ Customer segmentation and reporting based on visitor telemetry

Juniper is the only company that Gartner has named as a leader in both wired and wireless WAN infrastructure and location-based services.

'Zero Trust' = maximum confidence

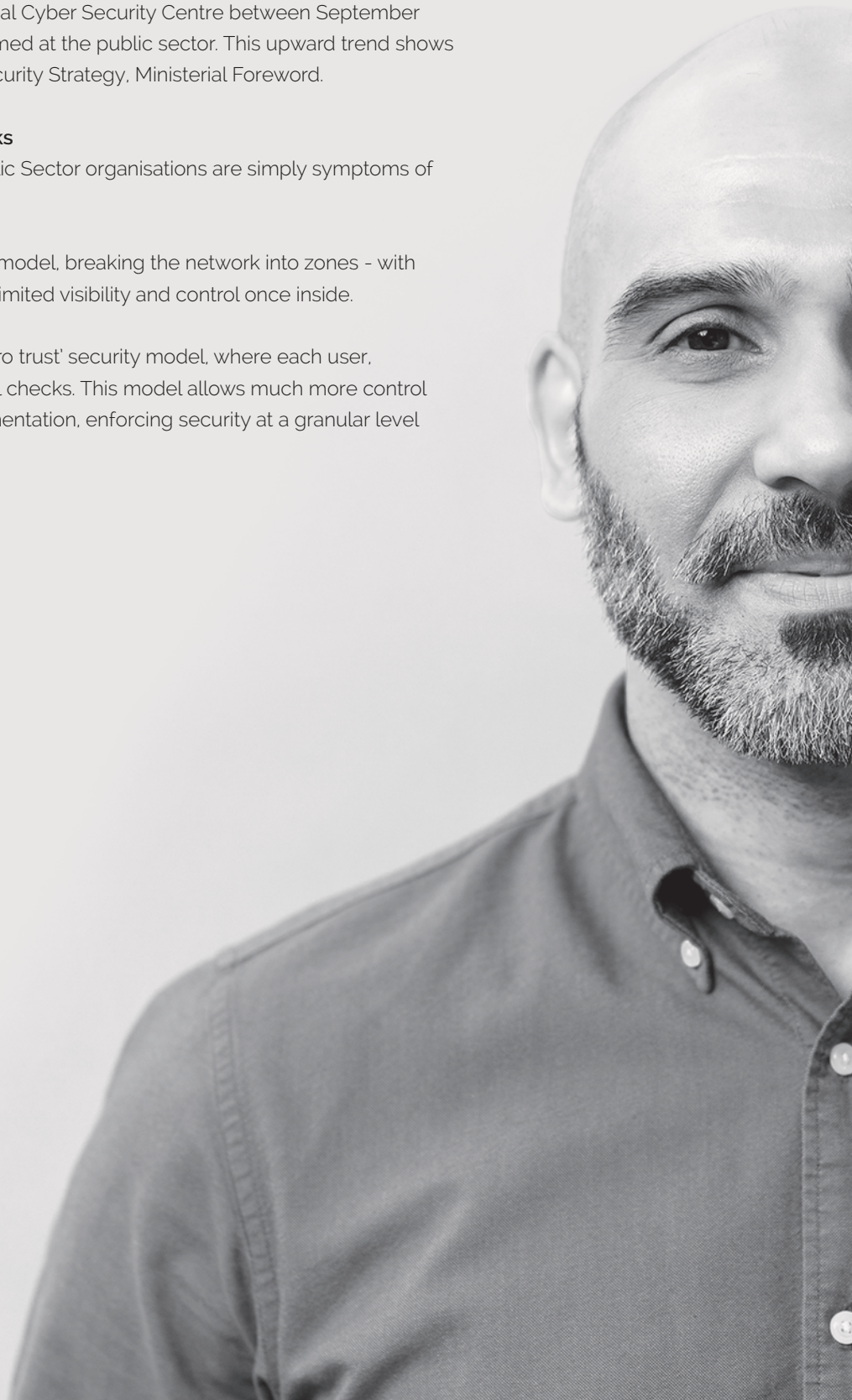
"Government organisations are routinely and relentlessly targeted [for cybersecurity attacks]: of the 777 incidents managed by the National Cyber Security Centre between September 2020 and August 2021, around 40% were aimed at the public sector. This upward trend shows no signs of abating." Government Cyber Security Strategy, Ministerial Foreword.

Protecting and serving our crucial networks

Many of the security challenges facing Public Sector organisations are simply symptoms of legacy network security models.

These are typically built on an implicit trust model, breaking the network into zones - with tight security controls at the boundary, but limited visibility and control once inside.

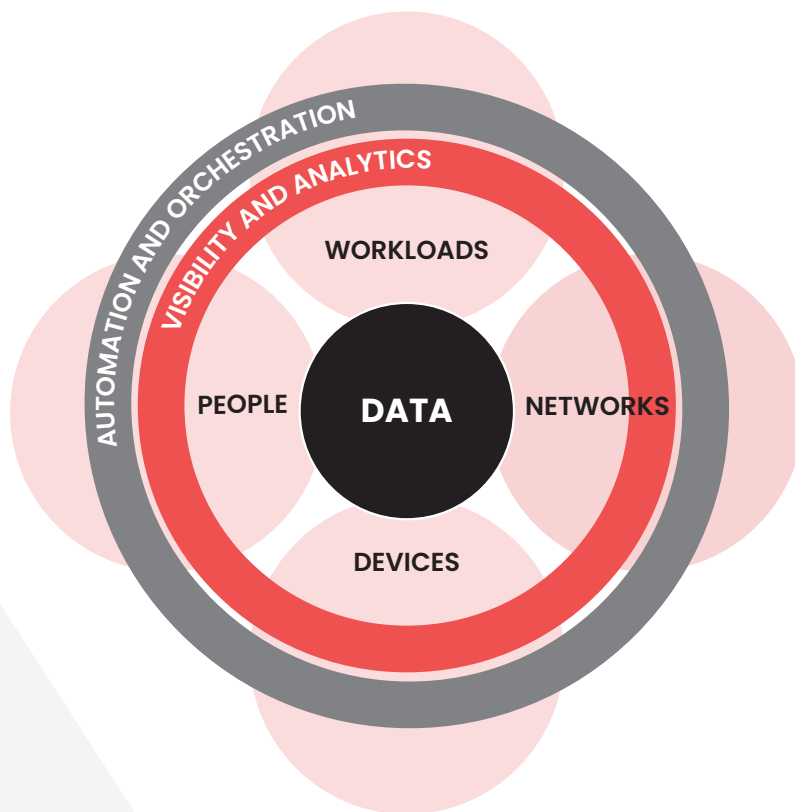
Current thinking has shifted towards the 'zero trust' security model, where each user, application or service is subject to individual checks. This model allows much more control over network access permissions and segmentation, enforcing security at a granular level and enabling confident growth.



Modern environments, post-modern protection

Fuelled by constant investment in research and development, Juniper applies some of the industry's most ground-breaking innovations across every aspect of networking technology: silicon, systems, software and security.

Juniper brings next-generation firewalls, switching, advanced malware defence, intelligent policy and flexible deployment models. Together with Juniper Connected Security, this complete approach fully addresses the Zero Trust needs of organisations - encompassing data, workloads, networks, devices, people, visibility, analytics, automation and orchestration.



Service, with purpose

“We are driven by a belief that technology can empower people and inspire change, but only when delivered in the right way. The Future Ready organisation will capitalise on the key technology trends of our time. IT and business leaders have an unprecedented opportunity to embrace these trends and create a more agile, flexible, secure and productive organisation” – Marc Chang, CEO at Block

By now it's clear that investing in a robust and reliable infrastructure is the path to unlocking the great potential within the Public Sector. But without the right ongoing support, ticking the box on upfront investment won't, on its own, solve much. Culture, processes, approach and even mindset all need to evolve to suit the new world.

An investment in a Juniper-powered system from Block comes complete with everything required to ensure it is deployed intelligently. Juniper's pioneering mix of automation, cloud, data and AI, all tailored to particular needs, create the ideal conditions for the service-centric transformation required to relieve the burden on IT teams and accelerate the organisation's evolution.

A Juniper-powered system configured by Block will drive performance, productivity, policy and experience, all while increasing staff satisfaction and reducing environmental impact and risk.

It's the complete package.



Marc Chang, CEO

About Block

Block was created for one reason; to empower people and inspire change through technology. We're fuelled by optimism; and a belief that better digital experiences can create a brighter future for people, organisation, society and our environment.

Long behind us are the days of technology conversations taking place within IT teams alone. Today we see transformative technology leading board room decisions as a mission critical enabler. We're passionate about unlocking potential. We're motivated not by the mediocre, but by going beyond the norm, pushing the boundaries of what convention says is possible, and delivering on outcomes that surpass all expectations.

We're driven by a belief in better, determined to deliver faster, and committed to working smarter so that technology works for you – as it can, as it should, and as your stakeholders deserve.

About Juniper Networks

At Juniper, we strive to deliver network experiences that transform how people connect, work and live. By challenging the inherent complexity in the 5G and cloud era, our solutions power the connections that matter most

Our commitment is to advance real outcomes for network teams and every individual they serve and that's why we've partnered with Block. Our shared values and vision for the future mean that we can work together to deliver true transformation.

Block bring experience, energy and creative thinking to everything they do helping our shared clients to realise the possible. Our relentless focus on putting our customers – the network architects, builders and operators – at the centre of all that we do, combined with Block's deep vertical insight and proven technical expertise, mean that together we can deliver impactful, measurable and sustainable business change.



block.co.uk