

5 ways network transformation drives business value

Your network is a business asset that can deliver measurable value across the enterprise. This collection of NTT DATA case studies shows how we've turned a network refresh into a strategic win for clients across industries and regions, enabling them to achieve gains in areas such as productivity and efficiency, AI growth and risk mitigation.



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The network: the heart of the business

Without the network, there can be no business: more than 9 in 10 organizations recognize that their networks directly affect their most pressing business and digital transformation challenges, according to NTT DATA's 2022-23 Global Network Report.

Global Network Report 2022-23

The report also shows that most organizations classified in the research as top performers – based on their financial performance – are investing more in their networks to make them more efficient and reliable in order to advance their digital transformation and achieve business outcomes.

The days of having a network just to give employees access to the internet and email are long gone. Now, network infrastructure is specifically designed and managed to align with your organization's strategic objectives. A business-driven network is defined by the business value it creates.

Leveraging the network as a driver of business value

While traditional networks are often set up with a primary focus on technical specifications and capabilities, business-driven network management prioritizes business goals – like the convergence of IT and OT in manufacturing to leverage the full potential of the Industrial Internet of Things (IIoT).

Business-driven networks have to be scalable, allowing organizations to adapt quickly to changes in the market or to new business opportunities. An adaptable network infrastructure opens the door to innovation.

When tailored to support hybrid working and provide high-performance access to communication and collaboration systems, business-driven networks have an impact on employee productivity and operational efficiency. When they enable sophisticated environmental monitoring, the organization benefits from lower costs and greater efficiencies through optimized resource use.

The network is the backbone of AI systems, providing the infrastructure needed to integrate new technologies and transfer large data volumes at high speed for real-time information processing. It's also key to implementing the advanced security protocols required to protect these systems.

Rapid developments in AI – including in generative AI (GenAI) – offer sophisticated ways to make the network more efficient and secure. AI algorithms can analyze vast amounts of network data to identify patterns, predict network failures or spot inefficiencies, keeping the network robust and available.

Turning your network refresh into a strategic win

Legacy infrastructure may well be a failure point in driving business goals and supporting AI objectives, but few organizations can simply switch off their current network and migrate to brand-new IT systems and infrastructure.

A successful network refresh will therefore require you to manage that legacy infrastructure through strategies for either integrating older systems with new technologies or replacing them in a way that minimizes disruption.

The first step is always to thoroughly assess and catalog your legacy infrastructure to understand what these systems do, which business processes they support and the impact they are having on business outcomes. This helps to identify which systems are critical and which can be phased out or upgraded.

Then, you can prioritize upgrades or replacements based on which systems most directly affect your strategic business goals. This can involve an incremental approach to integrating new technologies, considering the lifecycle management of your existing hardware and software elements, and extending the life of the whole network system.

Also key is considering skills transformation and access to resources to help smooth transition. And, once new systems are in place, regular reviews and updates will ensure the network continues to meet business needs.

5 ways network transformation drives business value

1. Advancing digital transformation to drive a competitive advantage

Digital transformation – the integration of digital technology throughout the organization – fundamentally changes how you operate and deliver value to customers.

Business-driven networks provide the infrastructure and capabilities you need to leverage digital technologies for streamlining processes, using resources more efficiently, minimizing human error and leveraging data to strengthen your competitive position.

They also support automation technologies that improve productivity, create consistent, reliable outcomes and reduce risk by taking over repetitive manual tasks.

Automation within the network can help to manage network traffic, monitor system performance and respond to security alerts quickly and efficiently.

Because digital transformation often involves higher volumes of data and the integration of new technologies, business-driven networks need to be flexible enough that their capacity and functionality can be adjusted as needed.

Making the connection

As you adopt additional digital tools, the need for seamless connectivity also increases. The network must keep all parts of the organization well-connected to facilitate better collaboration and communication across departments and geographical locations. This is particularly important in the era of hybrid and remote work.

Fast, reliable and secure connectivity also facilitates effective data management and analytics by allowing data to flow smoothly and securely across your organization.

The cloud is a central aspect of digital transformation. Moving resources to the cloud helps to improve accessibility and optimize operational costs. Here, the network needs to be adaptable for cloud integration so that it can provide secure and efficient connections to cloud services and between private- and public-cloud providers.

However, because digital transformation expands the digital footprint of your organization, it also increases the risk of cyberthreats, creating a need for robust network security measures.

Working with a managed service provider helps you to align your organization's network strategy with your business strategy in a more efficient way. In our network report, nearly 8 in 10 top-performing organizations say they have aligned their network and business strategies, compared with only about 40% of underperformers.



In practice: NTT DATA and the Absa Cape Epic

As the Official Technology Partner of the Absa Cape Epic, we are responsible for stable and secure network connectivity. This is crucial for live-streaming and maintaining communication among riders, officials, organizers and the media, regardless of challenging terrains and weather conditions.

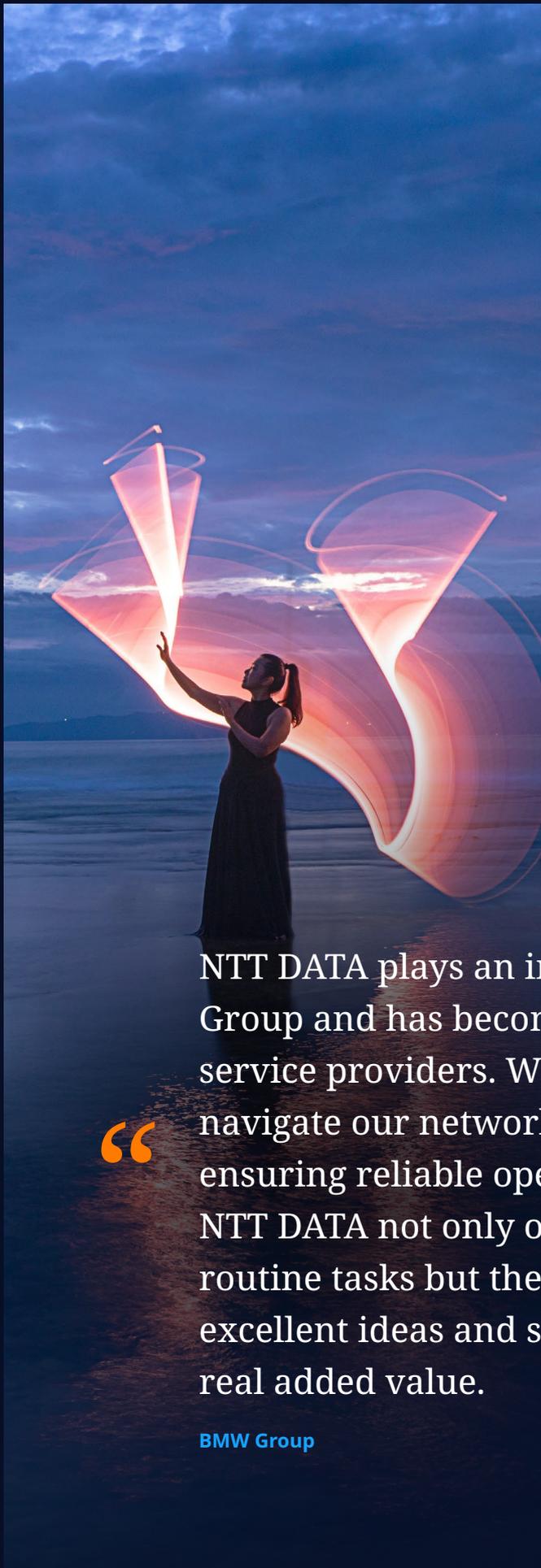
This support extends to on-the-ground technical assistance to resolve any issues swiftly and keep the race connected and running smoothly.

Absa Cape Epic case study



It's not the physical challenges that set a mountain-biking stage race apart. They're the basic reason for riders participating. What separates the ordinary from the exceptional is the ability to connect the world to every second of the race.

Kevin Vermaak, Absa Cape Epic Founder



BMW GROUP

In practice: NTT DATA and BMW Group

NTT DATA took over the operation of luxury carmaker BMW Group's global network, including nearly 1,000 wide area network (WAN) connections and about 30,000 server systems across various data centers.

We support BMW's cloud-first strategy while maintaining their existing on-premises infrastructure. This includes automating up to 85% of new server deployments and delivering nearly 99% accuracy in network diagnostics, significantly reducing the need for manual labor and supporting informed decision-making.

We also work closely with BMW Group's internal IT teams, providing operational support along with strategic insights and innovations that add value to their operations.

[BMW Group case study](#)

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NTT DATA plays an important role within the BMW Group and has become one of our largest infrastructure service providers. Witnessing the company expertly navigate our network and server infrastructure, ensuring reliable operations, is truly impressive. NTT DATA not only offers us opportunities to optimize routine tasks but their experts also regularly give us excellent ideas and suggest improvements, providing real added value.

BMW Group



In practice: NTT DATA and Frucor Suntory

Frucor Suntory has, for almost six decades, provided great-tasting drinks across New Zealand and Australia, where they employ 1,000 people in their offices and manufacturing facilities in three cities.

NTT DATA helped Frucor Suntory to create software-defined infrastructure to boost their digital business capabilities. We deployed a secure, software-defined network that allows seamless access to data and applications, so staff can collaborate effectively from anywhere.

The transformation included comprehensive Wi-Fi coverage across all sites to support a mobile workforce. The overhaul of Frucor Suntory's network improved their operational efficiency by fostering a collaborative work environment and reduced their time to market for new products.

[Frucor Suntory case study](#)



You want to make sure that you're working with partners who understand you so if any issues arise you're focused on the same outcome.

Gavin Sharkey, Head of Technology & Operations, Frucor Suntory Group

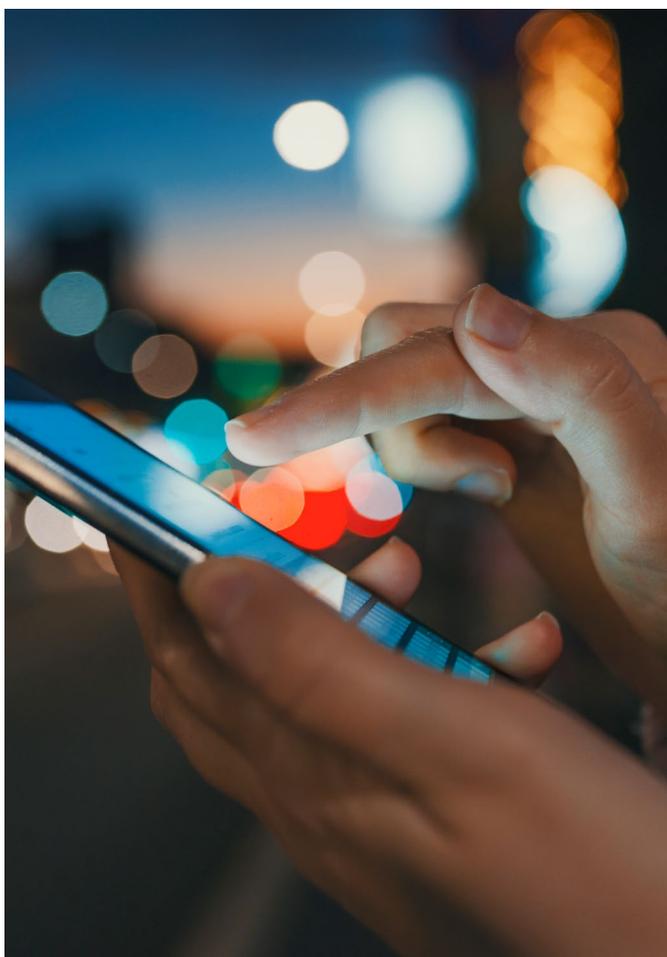
2. Connecting hybrid cloud environments

Hybrid cloud environments, which combine on-premises infrastructure with private- and public-cloud services, enable faster and more efficient data processing and analytics, especially for edge computing applications. They also offer more flexibility and scalability, as well as better security and compliance, for businesses that manage different types of workloads and data in different locations.

Business-driven networks are pivotal in connecting these environments, allowing organizations to reap the benefits of both worlds: control and security from their on-premises infrastructure, and scalability and efficiency from the cloud.

In our network report, 94% of organizations agree that cloud-based workloads demand greater availability, scale and performance from the network, and cloud-based network management is identified as a network investment priority.

More than 9 in 10 organizations also agree that most network functions will move to the cloud. So, conversations about the cloud and the network need to be much more closely aligned.



More connectivity and security, less cost

Seamless connectivity between on-premises data centers and cloud services is a fundamental requirement in this context, as it allows data and applications to move across different environments without performance degradation or security risks.

Also important is optimizing the flow of traffic between network segments, using solutions like a software-defined wide area network (SD-WAN) which can intelligently route traffic between the cloud and on-premises infrastructure based on the type of data, its destination and network conditions.

This level of optimization supports the dynamic nature of hybrid cloud environments, which have varying workloads and the ability to scale resources up or down as needed. Your network infrastructure should adjust automatically to changing demands without disrupting operations or performance.

Centralized network management tools provide visibility of and control over both on-premises and cloud resources. By intelligently routing data and using cloud resources, business-driven networks can also help to contain overall IT costs. For example, dynamically managing network traffic according to business rules, the time of the day or levels of congestion can optimize costs without compromising performance.

Of course, connecting on-premises infrastructure to cloud services creates complex security challenges, especially in terms of data privacy and regulatory compliance. Business-driven networks typically use advanced security features such as end-to-end encryption, intrusion detection and identity management to keep data secure.



KNORR-BREMSE

In practice: NTT DATA and Knorr-Bremse

NTT DATA advanced digitalization efforts at Knorr-Bremse, the world's leading manufacturer of braking and other systems for rail and commercial vehicles, by implementing a managed SD-WAN solution as a key component of their business-driven network strategy.

Implementing managed SD-WAN across 114 sites globally created a modern network capable of delivering high availability and bandwidth. This was crucial for supporting the widespread adoption of cloud-based services, such as Microsoft 365 and Teams, and for migrating key applications to Azure cloud.

Our SD-WAN solution allows Knorr-Bremse to prioritize business-critical traffic and use direct cloud access, which reduces the load on the core network. This enhances the performance and reliability of the network, ensuring that data-driven services and cloud applications run smoothly and efficiently.

Also, built-in encryption within SD-WAN keeps Knorr-Bremse's sensitive data secure during transit without sacrificing performance.

[Knorr-Bremse case study](#)



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As an international company, we rely on seamless communication and collaboration between our global teams. These services, as well as application modernization, digital production and the development of new business models, require flexible and stable network connections. The move to a managed SD-WAN was an obvious decision for us.

Tino Gieslor, Global Network Manager, Knorr-Bremse

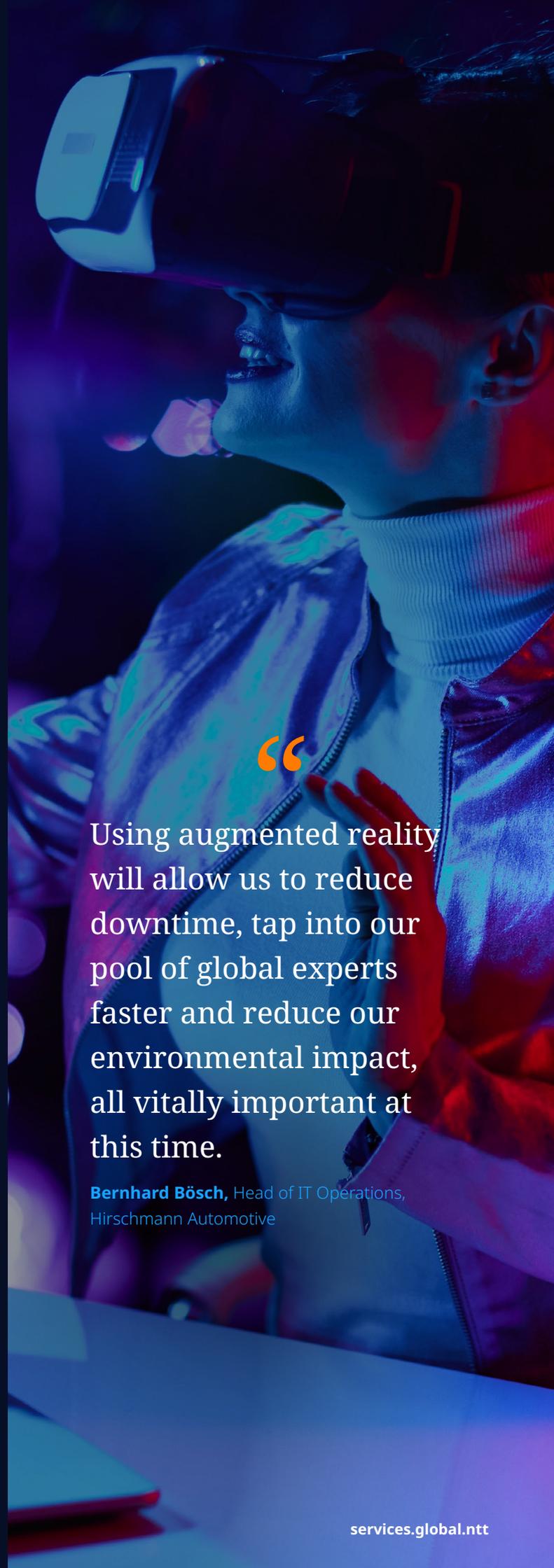


NTT DATA improved Hirschmann Automotive's operational efficiency and innovation by integrating augmented reality (AR) into their business processes.

Using AR headsets combined with Cisco Webex Expert on Demand software, Hirschmann Automotive can now connect their technicians at production facilities with experts across the world. This enables real-time collaboration and problem-solving, reducing downtime and improving productivity. Specialists can lend their expertise without the need for travel, saving time and reducing costs.

We're exploring additional applications of AR within Hirschmann Automotive, potentially extending its use to other departments such as HR (for training), design (for virtual modeling), and marketing (for product demonstrations at trade shows).

Hirschmann Automotive case study



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Using augmented reality will allow us to reduce downtime, tap into our pool of global experts faster and reduce our environmental impact, all vitally important at this time.

Bernhard Bösch, Head of IT Operations,
Hirschmann Automotive



In practice: NTT DATA and URC Group

NTT DATA helped Universal Robina Corporation (URC) Vietnam, a pioneer in the food and beverage industry, improve their cybersecurity framework through a cloud-based managed service using Cisco secure access service edge (SASE) and Microsoft Azure.

This solution was designed to secure URC Vietnam's cloud-first strategy and protect devices and applications across their distributed workforce.

A managed Cisco SD-WAN connects all locations securely, allowing seamless access to critical resources from anywhere. And the implementation of Cisco SASE, including full endpoint security via Cisco Umbrella, enables centralized management of the entire environment. All devices, whether company-owned or personal, adhere to uniform security policies. Additionally, a zero trust security model allows for secure management of all applications through a single interface, whether the applications are software as a service (SaaS) or cloud-delivered.

[URC Vietnam case study](#)

All our components needed to talk to each other and share data. A fundamental building block of digital transformation is ensuring that all transactions are secure. Our customers need to be able to navigate in a safe and secure environment

Karen Salgado, CIO, URC Group

3. Reducing the risk of a security breach

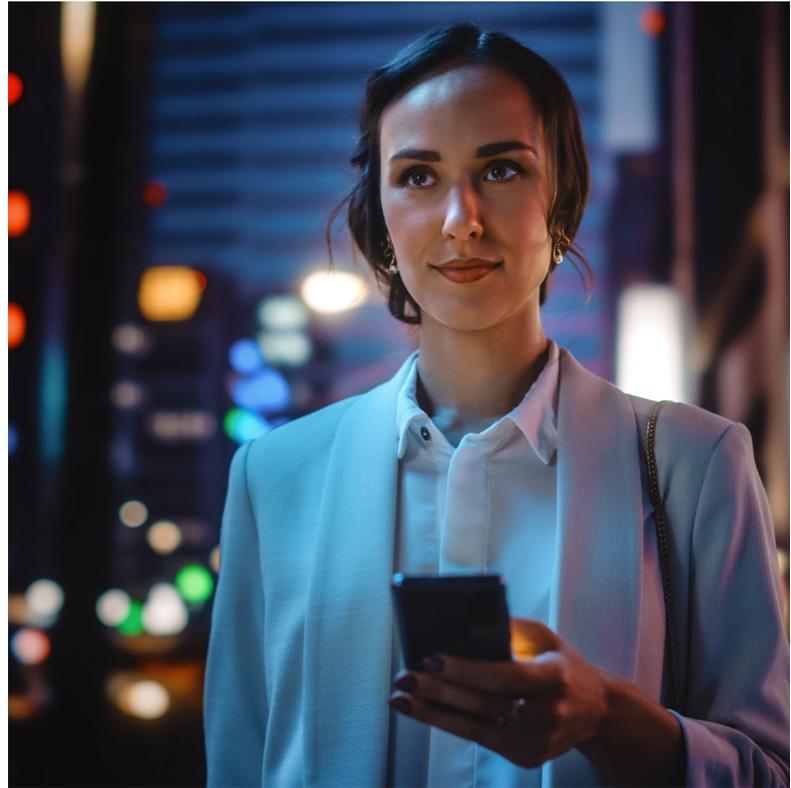
According to our network report, more than 90% of organizations agree (42% strongly) that ever-increasing security and compliance risks are a challenge throughout their IT and network operations. They are also concerned about a lack of expertise in these focus areas and opting more frequently to work with managed service providers.

Business-driven networks with advanced embedded and layered security controls – including technologies such as zero trust network access, advanced threat protection and SASE – are designed to match your organization's risk profile and compliance requirements. This targeted approach helps protect against cyberthreats more effectively than one-size-fits-all solutions.

Because these networks prioritize security as a fundamental component of the network architecture, your organization can adopt a proactive security posture that anticipates and mitigates potential threats before they become critical issues. Comprehensive visibility across the network enables real-time monitoring and analytics – crucial for rapid threat detection and response.

A key feature of secure-by-design networks is the ability to segment the network into zones, allowing for more granular control over data and resource access and limiting the potential impact of a security breach by containing it within a single segment.

AI-driven security systems can detect anomalies that may indicate a cybersecurity threat, such as unusual access patterns or large data transfers.



Identity-based access, AI and automation

Business-driven networks also use identity-based access controls that enforce security policies based on user identity and context. This means users have the appropriate level of access to network resources based on their role, location, device status and other contextual factors.

Should something go wrong, these networks often incorporate automation – increasingly AI-led – to respond dynamically to perceived threats. This can include making automatic adjustments to access controls, rerouting traffic or isolating the affected network segments. Automation also eases the burden on cybersecurity teams.

Taking it a step further, AI-driven security systems can detect anomalies that may indicate a cybersecurity threat, such as unusual access patterns or large data transfers. These systems learn from ongoing network activity, making them more accurate over time. GenAI can also generate simulations and models to predict security challenges and recommend preventive measures.

Furthermore, your organization can comply with regulations that govern data protection and privacy through controlled data flows, secure data storage and transmission, and comprehensive reporting mechanisms.



In practice: NTT DATA and SCG Chemicals

NTT DATA bolstered the cybersecurity framework of SCG Chemicals, one of Thailand's largest integrated petrochemical companies, by implementing a secure-by-design network and cloud solution to meet the needs of their operational technology (OT) environment.

Our OT network solution allows for more controlled automation and systems management. It includes multiple layers of security built into the initial architecture to secure the network at various levels. Each layer is tailored to meet specific operational needs at SCG Chemicals' manufacturing plants, including detailed control and monitoring.

We also had to remain compliant with IEC-62443 guidelines, which are critical for cybersecurity in OT systems and provide peace of mind for both the company and its stakeholders.

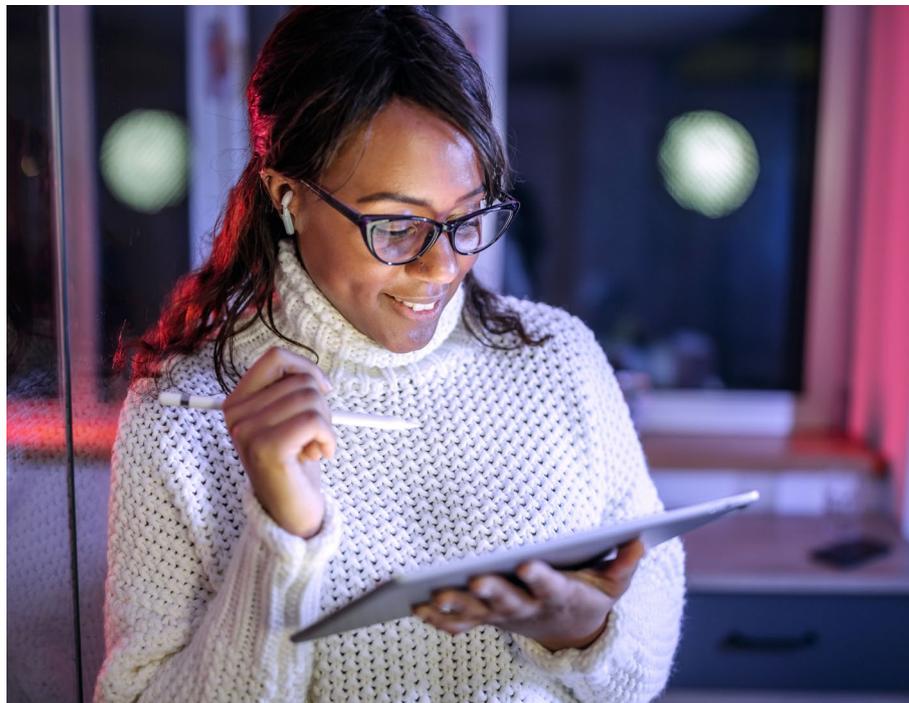
Some of SCG Chemicals' core applications were moved to the cloud, which, combined with advanced firewall and antivirus solutions, improved not only productivity and efficiency but also cybersecurity.

SCG Chemicals case study



We're aware of the rapidly evolving cyberthreats facing operational technology environments, and it was vital that we took steps to protect ours.

Worasiri Rongkaprayoon, Head of Big Data & Intelligence, SCG Chemicals





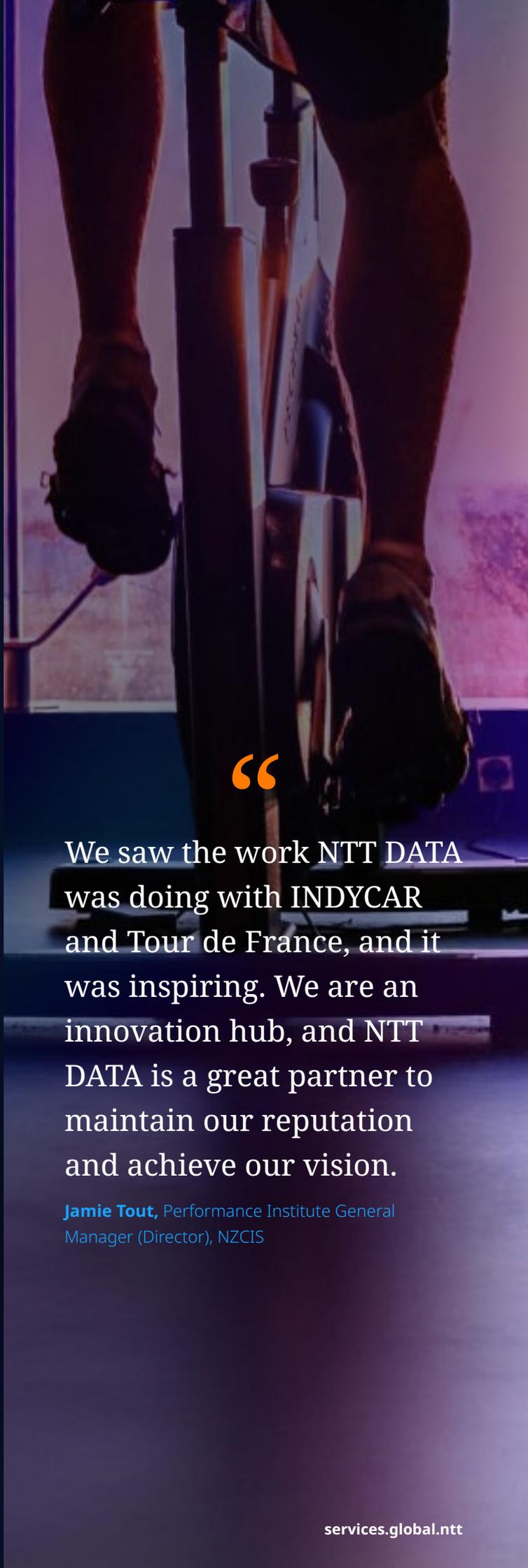
In practice: NTT DATA and NZCIS

NTT DATA has helped to transform the New Zealand Campus of Innovation and Sport (NZCIS) into one of the most technologically advanced sporting facilities in the world.

We implemented a network-as-a-service solution with intelligent network infrastructure that meets the high demands of a multitenant sports-training campus and keeps all parts of the campus connected securely.

The backbone of the solution is a software-defined network that supports the high throughput needed for 4K video content and data from thousands of sensors and devices used by athletes and facilities. The network also allows users and devices to connect securely and seamlessly.

[NZCIS case study](#)



We saw the work NTT DATA was doing with INDYCAR and Tour de France, and it was inspiring. We are an innovation hub, and NTT DATA is a great partner to maintain our reputation and achieve our vision.

Jamie Tout, Performance Institute General Manager (Director), NZCIS



In practice: NTT DATA and Cbus

NTT DATA has supported digital transformation and security at Cbus, Australia's leading industry superannuation fund for the building, construction and allied industries, by implementing a secure, private SD-WAN environment to connect Cbus's offices and their remote and mobile workforce to an increasing array of cloud resources.

To meet Cbus's stringent internal requirements and external regulatory obligations, the SD-WAN network encrypts application flows at all times. This is critical for protecting sensitive financial data and the personal information of Cbus members.

A management dashboard hosted on NTT DATA's secure private cloud platform gives Cbus complete visibility of traffic flows and network performance, enabling them to identify and address bottlenecks, optimize network performance and flag potential security threats before they can escalate.

Cbus case study



We have a lot of our capability in the cloud. Our connectivity is ultra-important because all of our infrastructure, the things our people are actually using, exists outside the perimeter of our network.

Rob Pickering, Chief Technology and Digital Officer, Cbus

4. Optimizing resource usage for greater efficiency and sustainability

Business-driven networks enable optimized network operations – and this includes network designs that keep energy efficiency in mind.

Modern network devices are designed with less embodied carbon, efficient power supplies and responsibly sourced minerals, and they are shipped with 100% recyclable packaging. In addition, technologies such as software-defined networking and virtualization allow for better management of network resources, reducing the need for physical hardware and consequently lowering energy consumption. Efficient routing and switching protocols also allow data to travel through the network using the least amount of energy possible.

AI systems can optimize cooling systems and power usage, reducing the carbon footprint of network operations.

And, of course, business-driven networks often integrate seamlessly with cloud services, which are generally more energy-efficient than traditional on-premises data centers.

Taking a lifecycle view

These networks can also facilitate better asset lifecycle management by providing data on usage patterns, maintenance needs and end-of-life recycling. This makes it easier to extend the lifespan of your organization's products through circularity programs and plan for responsible disposal or recycling.

Looking more broadly within your organization, secure and robust network connectivity is essential for remote and hybrid work. It reduces the carbon footprint associated with commuting, and you can reduce your physical office space to cut down on your heating, cooling and lighting requirements.

The high reliability of a business-driven network in specific industries is another benefit. For example, in manufacturing, IoT sensors can monitor and adjust the consumption of materials and energy at every stage of production in real time, minimizing waste and improving efficiency.



In practice: NTT DATA and Mondi

NTT DATA has contributed to sustainability efforts at Mondi, a global leader in sustainable packaging and paper, by providing a fully managed WAN to connect their global operations securely and efficiently. The network is crucial for linking their manufacturing, logistics, sales and administrative sectors across continents, ensuring minimal downtime and supporting their sustainability goals.

Our managed security services also protect Mondi against cyberthreats, which is vital for maintaining the integrity of their sustainable operations.

This technological foundation allows Mondi to focus more on their business and sustainability objectives without being hindered by connectivity issues.

Mondi case study



The partnership with NTT DATA and Cisco has turned our network into an engine for sustainability and innovation. The managed service means that we know there's a global team of experts ensuring that it remains secure and available at all times.

Rainer Steffl, CIO, Mondi



In practice: NTT DATA and CILE

NTT DATA contributed to the sustainability efforts of Compagnie Intercommunale Liégeoise des Eaux (CILE), which sources and distributes drinking water to 24 municipalities in Liège, Belgium, by implementing a sophisticated network solution.

We deployed more than 250,000 sensors, connected securely through a long-range wide area network (LoRaWAN), to help CILE monitor water usage accurately. The system detects leaks, backflows and overconsumption in real time.

Our IoT network also allows for smart metering for accurate billing and to identify areas where water consumption is higher than usual – important data for the implementation of sustainable water management practices.

CILE can now also make informed decisions about which water pipelines require maintenance or replacement, reducing the risk of leaks.

[CILE case study](#)

We took advantage of NTT DATA’s expertise in networks and IoT to further our goal of creating an integrated, smart city. We now have intelligent data, so we can make informed decisions to improve residents’ lives and optimize water management.

[William DeAngelis](#), CIO, CILE

5. Boosting employee collaboration, productivity and output

According to NTT DATA's 2023 Global Employee Experience Trends Report, nearly 6 in 10 employees globally are now following a hybrid or fully remote work model.

Business-driven networks have to support this evolving workplace model by providing the technological foundation necessary for collaboration and security across dispersed work environments.

At the core of the hybrid workplace is the need for seamless connectivity, regardless of location. The network must allow employees to access corporate resources securely and efficiently, whether they are working in the office or another location. This includes access to software-as-a-service applications and cloud services.

[Global Employee Experience Trends Report](#)



The network must allow employees to access corporate resources securely and efficiently, whether they are working in the office or another location.

Working together, apart

Collaboration tools are also essential for hybrid work. Think videoconferencing, real-time messaging and shared digital workspaces that support productive work at any location: these tools rely on robust network infrastructure to function properly.

Business-driven networks can prioritize traffic to give critical applications like videoconferencing software the necessary bandwidth to operate smoothly. The network plays a fundamental role in making the workplace a magnet, not a mandate, for employees. It enables superior experiences, sophisticated occupancy and space tracking, asset tracking and indoor wayfinding. Deep integration with collaboration systems aids these experiences, and environmental monitoring helps maintain healthy environments.

At the same time, security becomes a paramount concern because of the distributed nature of hybrid work. Advanced network security features such as virtual private networks (VPNs), end-to-end encryption and applying zero trust principles become indispensable and help you to meet compliance standards. They also allow employees to use their personal devices to access work resources.

Meanwhile, insights gained from advanced network analytics can be used to optimize the network to better support hybrid work patterns and improve resource allocation.



In practice: NTT DATA and HEINEKEN Kraków

NTT DATA helped HEINEKEN Kraków implement a hybrid working model by upgrading their infrastructure and collaboration tools.

This included moving their internal contact center to the cloud, enhancing their largest conference room with modern technology and implementing software-defined infrastructure with managed services.

These improvements support flexible work arrangements built on strong connectivity, enabling HEINEKEN Kraków to offer a modern, flexible workspace that attracts top talent across Europe.

[HEINEKEN Kraków case study](#)

“ We needed support in designing the best solutions and choosing the technology. We trusted NTT DATA because of their extensive capabilities and numerous partners. We appreciate the dedication and personal commitment of the NTT DATA team, who coordinated many implementations in a very short time.

Paweł Miodek, D&T Service Delivery Manager, HEINEKEN



In practice: NTT DATA and ASHRAE

NTT DATA has supported the hybrid work goals of ASHRAE – the global professional society committed to advancing the sciences of heating, ventilation, air-conditioning, refrigeration and allied fields – by implementing a smart office environment in their new headquarters.

In collaboration with Cisco, we developed an integrated system that provides full visibility of the workplace environment and building management systems, ensuring that both employees and visitors have access to the right facilities while complying with health and safety regulations.

The smart workplace meets the requirements of modern employees and is adaptable to future needs. During the COVID-19 pandemic, it allowed for modifications like monitoring the number of people in meeting rooms and adjusting airflow to comply with health guidelines.

Employees use Cisco Webex-enabled meeting rooms to collaborate, whether they are on-site or connecting remotely, with high-quality audio and video.

Transforming ASHRAE's headquarters into a carbon-neutral building also aligned with their sustainability goals while supporting the hybrid work environment.

[ASHRAE case study](#)



Working with NTT DATA and Cisco, we were able to take our vision of what an intelligent workplace is to the next level, integrating seamlessly with other building management systems.

Jeff Littleton, Executive Vice President, ASHRAE

Take the next step

Reduce risk and manage costs in your network

As you consider how to deliver the network your organization requires to overcome today's challenges and take advantage of tomorrow's opportunities, selecting the right partner is key.

An experienced system integrator and managed service provider will assess your network needs and design a customized network solution that supports digital transformation, cloud, security, sustainability and the hybrid workplace.

Whether you're looking to manage your network in-house or partner with a managed service provider, NTT DATA can help. With access to the latest technologies and best practices, we have the expertise and experience to deliver a more efficient and cost-effective network that creates value throughout your business.

Read more about NTT DATA's solutions for business-driven networks to see how we can make your network future-proof.

[Read more](#)

