



Technology and the road to operational excellence

Optimising business performance for enhanced profits

White Paper

Technology and the road to operational excellence

Alcatel•Lucent 
Enterprise

Table of Contents

Technology innovations drive operational excellence 3
Justifying the technology investments 4
Technology solutions contribute to business goals..... 6
Choose a partner that drives operational excellence 9



Technology innovations drive operational excellence

Decisions to adopt innovative technologies that increase business agility, efficiency, resilience and sustainability are moving up senior managements' priority lists globally. Their actions are driven by the need to overcome modern-day challenges and achieve the levels of operational excellence required to improve performance and profits.

With the backdrop of uncertainty in today's world, only the most:

- **Agile businesses** can cost-effectively manage their way through challenges created by high inflation, rising energy costs, geopolitical tensions, climate change and supply chain disruptions
- **Efficient businesses** can simplify and accelerate workflows, outperform the competition and increase margins, while securely supporting their dispersed and mobile workforce
- **Resilient businesses** can quickly adapt to the ever-evolving cyberthreat landscape and the potential risks posed by new technologies such as IoT
- **Sustainable businesses** can continue to accelerate their operations and grow while keeping costs, complexity and environmental impact to acceptable levels

Businesses recognise the crucial role technology plays in their success

Improving operational excellence is so important to business profits, competitive advantage, and customer experience, it was the top priority for customer service and support leaders across industries in a 2023 Gartner survey.¹

The relationship between operational excellence and digital technologies is also accepted and discussed globally, by management consultants,² at events focused on the topic,³ and in industry briefs.⁴ That acceptance is visible as organisations across industries invest in advanced analytics, artificial intelligence, automation and other technologies to improve performance.

With the urgent need to improve operational excellence, these businesses recognise that investing in technologies to increase business performance, profits and competitive edge is equally pressing.

Businesses can't afford to delay technology investments

"In addition to establishing a customer-obsessed objective and then making smart cuts with that objective in mind, leaders should move forward by investing in technologies that can improve customer experience, employee experience and productivity, even as others choose to stand still."

—Forrester, January 2023⁵

1 [Top Customer Service Trends, Priorities, and Predictions for 2023](#). Gartner, 2023.

2 [Operational excellence: How purpose and technology can power performance](#). McKinsey & Company, April 2023.

3 [Digital Transformation and Operational Excellence Summit](#). Evnoia Group, March 2023.

4 [Asia-Pacific Healthcare Delivery: Operational Excellence in the Digital Age](#). Bain & Company, September 2019.

5 [Forrester: The Best Defense For Business Leaders During The 2023 Economic Downturn Is A Proactive Offense](#). Forrester, January 2023.



Justifying the technology investments

Technology innovations must be seen as business enablers that deliver measurable results rather than as a means to an end. Business leaders must understand how the right mix of technologies:

- Increases business agility, efficiency and productivity
- Ensures resilience, responsiveness and sustainability
- Reduces operational complexity and costs
- Improves the customer and employee experience

None of these benefits stand alone; the outcomes are intertwined and influence one another. Here are just a few examples of how investing in innovative technologies can help businesses overcome challenges, achieve key business goals and accelerate the journey to operational excellence.

Agile businesses address fast-changing business needs

Businesses must factor agility and flexibility into their operations. With technologies that increase agility, they can:

- Quickly and easily scale their operations to align with business requirements and respond more effectively to unexpected events
- Support in-office and remote work models and mobility to meet employee demands for flexibility while empowering them to increase customer satisfaction from anywhere
- Take advantage of subscription models that provide technologies “as a Service” to free-up cash, increase spending predictability and accelerate access to more advanced capabilities

McKinsey & Company has studied the impact of enterprise-wide agile transformation, and found the benefits — increased employee engagement, customer satisfaction and operational performance — reinforce one another to improve overall financial performance 20 to 30 percent.⁶

Efficiency increases productivity and profits

Technologies that automate routine operations accelerate processes and responses, allowing staff to focus on top business priorities rather than mundane tasks. When technology solutions provide autonomous operations, businesses can also reduce the time, effort and resources required to manage and maintain solutions. These efficiencies minimise the burden on IT teams, so they are also free to drive higher value business initiatives.

Infrastructure and operations leaders around the world recognise the business value automation provides. In a global survey, Gartner found that 85 percent of infrastructure and operations leaders that don't currently have full automation expect to increase automation by 2025. The research firm predicts that by 2025, 70 percent of organisations will implement structured automation to increase flexibility and efficiency.⁷

⁶ [Enterprise agility: Buzz or business impact?](#) McKinsey & Company, March 2022.

⁷ [Gartner Survey Finds 85% of Infrastructure and Operations Leaders Without Full Automation Expect to Increase Automation Within Three Years.](#) Gartner, October 2022.

CEOs and CFOs also believe automation investments are key to driving down costs. Based on the results of separate 2022 surveys, Gartner confirmed that CFOs plan to protect digital investments as they cut costs elsewhere, and have prioritised back-office automation as a key to driving down costs in the face of ongoing inflation.⁸

Resilient businesses protect people, assets, data and reputations

Every business must invest in technologies that reduce the risks associated with unauthorised access, theft, or destruction of company assets and data. These investments are essential to prevent, protect against and quickly respond to data breaches, network attacks and other malicious activities that could threaten operations or tarnish reputations.

As the risk of cyberattacks increases, so does the need to leverage technology solutions to strengthen resilience. In 2022, organisations globally experienced unprecedented threats and successful attacks that brought swift and severe consequences:

- In the U.S., a ransomware attack on 157-year-old Lincoln College led the institution to close its doors permanently⁹
- In Costa Rica, a nationwide cyberattack forced government officials to declare a national emergency and call on help from other countries to deal with the crisis¹⁰
- In India, the healthcare industry reported nearly 1.9 million cyberattacks through a variety of vulnerabilities¹¹
- In Europe, the war in Ukraine has led to a substantial increase in cyberattacks, and has reshaped the threat landscape^{12,13}

Sustainable businesses can increase compliance while cutting costs

Cutting-edge technology solutions make it easier for businesses to comply with environmental regulations and cut costs in multiple ways:

- Compact hardware, software-driven solutions and cloud-based applications reduce space and heating, ventilation and air conditioning (HVAC) requirements to minimise environmental footprint and real estate costs
- Energy-efficient solutions reduce power consumption and energy costs
- Automation, remote access and advanced collaboration solutions reduce travel requirements and minimise the carbon footprint
- Technology solutions that are designed to evolve with the business and have a long life cycle reduce waste and extend investments

According to the Harvard Business Review, most recent studies show a correlation between sustainability and financial performance. The publication suggests making a clear connection between the two worlds using concrete measurements, data and valuations to help clarify the financial benefits of sustainability initiatives.¹⁴

⁸ [Gartner Says CFOs Are Focusing on Automation Investments to Drive Down Costs](#). Gartner, August 2022.

⁹ [Ransomware attack shuts 157-year-old Lincoln College](#). CBS News, May 2022.

¹⁰ [2022 In Review: An Eventful Cybersecurity Year](#). Forbes, December 2022.

¹¹ [1.9 million cyberattacks against Indian healthcare recorded in 2022](#). Healthcare IT News, December 2022.

¹² [Infographic - Top cyber threats in the EU](#). European Council, 2022.

¹³ [From Ukraine To The Whole Of Europe: Cyber Conflict Reaches a Turning Point](#). Thales, March 2023.

¹⁴ [How to Talk to Your CFO About Sustainability](#). Harvard Business Review, January-February, 2021.



Transportation sector sees link between networks and operational excellence

After upgrading its network, the [Nevada Department of Transportation](#) in the U.S. has increased safety by offering drivers real-time information on road, traffic and weather conditions. And it has laid the foundation for its next-generation Intelligent Transportation System (ITS), making it easier to connect and manage the growing mesh of IoT devices on the state's highways.

In the UK, the [Liverpool City Region Combined Authority \(LCRCA\)](#) upgraded to flexible, resilient and reliable network infrastructure that allows it to efficiently run its services 24/365 and support future applications. With a consolidated network and unified management, LCRCA was able to maximise return on its investment while enhancing the traveler experience.

Technology solutions contribute to business goals

Network and communications solutions help businesses achieve the outcomes described in the previous section. To ensure each solution adequately contributes to the targeted outcomes, businesses must look beyond features and functionality and compare total cost of ownership (TCO) across technology providers and brands.

Evaluating network and communications solutions based on TCO provides a clear view of how each solution helps the business make money, save money, or both. Company leaders have the insight needed to choose solutions that:

- **Reduce operational costs.** Solutions that consume less power reduce energy costs, while solutions that are robust and highly reliable minimise the costs associated with network downtime, equipment maintenance and repairs.
- **Eliminate hidden costs.** Some vendors take an all-inclusive approach to pricing, while others charge additional fees for key elements such as training, supplementary licenses, maintenance and support contracts, particularly for complex systems. These unplanned costs extend ROI timelines and strain budgets.
- **Reduce infrastructure costs.** The less equipment that must be purchased, the lower the capital and operating costs associated with it. Unified infrastructure solutions that autonomously execute functions, reduce equipment requirements and simplify network management to keep costs down.
- **Reduce IT and manpower costs.** Autonomous networks and artificial intelligence streamline IT resource requirements. They can be used to automate network and services provisioning, monitor the network 24/7, identify and mitigate potential issues, and optimise network performance with minimal human assistance.
- **Increase business continuity and employee productivity.** Solutions that support predictive maintenance and anomaly detection mean issues can be proactively addressed. These actions minimise network downtime and ensure a consistent, high-quality user experience.
- **Increase efficiency.** Platforms and applications that automate business processes and workflows enable real-time communications and collaboration and accelerate customer responses. There are even solutions that support real-time location-tracking for key assets to help everyone in the organisation eliminate wasted time searching for items.

As businesses consider how technologies can be used to drive operational excellence, they must take a holistic approach that allows them to connect people, objects and corporate applications across the organisation. This is the only way to give all staff access to real-time insights and automated workflows while avoiding the high costs associated with standalone, isolated technologies.

Agility supports business strategies and objectives

The past few years have proven that flexible working arrangements are essential for business continuity. This means organisations must continue to improve the ability for both IT and Operations teams to seamlessly work on- and off-site.

Technologies that can be securely deployed on premises or in the cloud, empower staff to collaborate and share data. All relevant teams have full access to customer information while remaining fully compliant with data and privacy regulations, no matter where they are.

When the required equipment, applications and services are purchased through a subscription, businesses have the financial flexibility needed to accelerate expansion through digital transformation. They can also mitigate the risks associated with cash flow challenges and budget constraints.

End-to-end cybersecurity reduces risks

Network and communications solutions that implement an end-to-end approach to cybersecurity help businesses manage the ever-evolving threat landscape. These solutions implement six key security measures:

- **A Zero Trust Network Access (ZTNA) security model** provides no implicit trust to any user, device, or application, no matter where it is located, to reduce the risks of both external and internal threats
- **Macro- and micro-segmentation** allow businesses to specify which users, devices and applications can communicate with one another to prevent unauthorised interactions that could spread attacks
- **Embedded network access control** allows businesses to define which users, devices and applications can access specific functionality to limit exposure and maintain regulatory compliance
- **Encryption capabilities** that are approved by security agencies and are natively built into all hardware and software elements protect communications and information from origin to destination
- **Integration with firewalls and intrusion detection systems** enables businesses to implement a cohesive and context-aware approach to cyberthreat mitigation and responses across systems
- **A secure-by-design approach** considers security at each step of product definition, development and delivery to ensure all solution components implement the best practices in cybersecurity that are most critical for the industry

A comprehensive approach to sustainability simplifies compliance

There are several ways network and communications solutions can help businesses comply with environmental regulations.

Hardware solutions must be designed to be reused, repaired, or recycled, rather than thrown away. Functionality must be virtualised wherever possible to reduce the amount and size of equipment, physical space and environmental systems required to operate the solution. Where physical equipment is required, it must include innovations that minimise power consumption. Finally, solutions must be designed and built to reliably operate for many years to avoid the need for premature replacement. Together, these measures help to reduce TCO.



[California State University reduces operational complexity to save more than \\$100 million](#)

By upgrading to standardised network technologies, centralised management and enhanced security, California State University was able to significantly simplify IT operations and save more than \$100 million in infrastructure costs.

Choose a partner that drives operational excellence

Alcatel-Lucent Enterprise partners closely with businesses to bring them the network and communications expertise, experience and solutions they need to work smarter and faster with higher security and lower TCO across their operations.

With our holistic approach to networks and communications, businesses can eliminate the need to purchase and support multiple and disparate systems. They can simplify IT by taking a more unified and consistent approach to security and network policies. This will drive operational excellence from multiple perspectives.

Tie technology strategy to business strategy

Our robust and secure autonomous network solutions provide the foundation required to increase efficiency and resilience with minimal equipment and minimal IT intervention. We build on this secure foundation with integrated communications and collaboration platforms that connect people, objects and corporate applications. This approach allows businesses to accelerate access to real-time information in a cost-effective way.

To maximise business resilience and flexibility, we provide our technology solutions in any combination of on premises, private cloud, public cloud and hybrid deployment models. We also offer our solutions “as a Service” to help businesses optimise budgets and stabilise expenditures.

Our solutions help businesses increase sustainability by respecting environmental legislation, reducing power consumption and minimising travel and maintenance truck rolls. To support a circular economy and minimise waste, our solutions are designed for long life, and to be reused, repaired and recycled. We also offer second-hand hardware for cost-effective technology investments.



Leverage our proven success in increasing operational excellence

Leading organisations across industries rely on Alcatel-Lucent Enterprise to accelerate their journey to operational excellence. Here are just a few examples:



[Metz Eurometropolis](#) in France. The metropolitan area has improved IT efficiency with simultaneous configuration of devices on wired and wireless networks, and a single point of network management and control. With a futureproof, converged network, Metz Eurometropolis has the ideal foundation to support digital citizen services and smart city projects.



[FH Campus Wien](#) in Austria. The largest university of applied sciences in Austria quickly and smoothly brought its newest building online thanks to uniform network infrastructure and management solutions that simplify configuration and operations.



[Energy One](#) in Australia. Energy One has simplified network management and maintenance across its sites to reduce the burden on their IT team so they are free to focus on higher priority tasks. Better network performance and Wi-Fi coverage have also increased employee productivity and mobility.



[Medcare increases medical excellence and patient safety across sites](#)

“The Alcatel-Lucent Enterprise solution helps us to deliver a five-star patient care and healthcare experience. By facilitating access to information for doctors and medical personnel, it supports staff productivity and helps our team make the right decisions every time.”

—Naushad Mohammed, General Manager, IT, Medcare in the United Arab Emirates

Learn more

To learn how we can help your organisation increase operational excellence, [visit our website](#) or [contact us today](#).