From red to green: Examining strategies for fiscal fitness

Adjusting your organizational strategy to improve its financial outlook

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Introduction

Business leaders are like racecar drivers, sprinting to win on a track full of twists and turns in an attempt to claim the checkered flag. They face a tough headwind that slows down their progress towards their business goals. Inflation, market uncertainty, and rising interest rates are all challenges that organizations must deal with, as they try to stay ahead of the game in a race for growth. At the same time, organizations need to invest in talent, sustainability, and digital ecosystems to keep up with the times. Higher operating expenses are shrinking margins, making companies look at their cost structure for solutions—while still funding innovation and growth. But there are more reasons to streamline costs than just the economy. Businesses that realize short-term cost savings can secure long-term competitive edges, finding opportunities and improvements that others could miss. The question for CIOs is how to wisely invest their budgets, while keeping the mid- and long-term health of the business intact.

This white paper will present a framework that you can apply to consider different cost optimization tactics. We will look at how a thorough assessment can help you develop a cost optimization strategy, how to foster innovation without exceeding your budget and how preparing for future cybersecurity threats can help safeguard the financial statement and your rapport with other stakeholders.

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Evaluate before you elevate

Changing the financial challenges in your organization requires the ability to step back and examine every part of your organization to understand what is deriving value and what is extracting resources away from your ability to reach your goals. Too often, leaders blindly cut costs via perceived low hanging fruit suggested by others, rather than spending time understanding if those measures are the correct route for them to take. Acclaimed Harvard Business professor Micheal Porter said, "The essence of strategy is choosing what not to do." Leaders have to make sure to ask themselves the right questions regarding inputs and outputs, before deciding which route is best for affecting their cost structure. Throughout this white paper, we will cover the financial objectives that are important to organizations of all sizes and across industries. It's important to understand how each sector may view their cost outcomes in relation to their organizational goals. The growth or reduction cost measures prescribed in one organization may be perceived differently by another.

Mid-market businesses, those with annual revenues between $10 million and $1 billion, face unique challenges in controlling costs, particularly in areas such as procurement and supply chain management. One of the key issues is the unmanaged procurement spend, where a significant portion of the company's expenditure falls outside the approved budget of finance or procurement departments. This lack of visibility and control can lead to inefficiencies and increased costs. In terms of supply chain, these companies often grapple with the complexities of managing multiple suppliers, fluctuating commodity prices, and logistical issues, all of which can inflate costs. Additionally, they may lack the bargaining power of larger corporations, leading to higher procurement costs. Furthermore, mid-market companies often face a funding gap, making it difficult for them to invest in advanced procurement and supply chain technologies that could help them optimize costs. These challenges necessitate strategic planning and efficient management for these businesses to effectively control costs and remain competitive.

As a business scales in operational and workforce size, a myriad of additional issues take heightened importance in the scope of the business model. Your method for evaluation of your business should also scale to critically view the entirety of your operations. A business must critically analyze their production process to find steps that can be better optimized or eliminated, depending upon what will yield the greatest results. The most significant variable cost in a business process is associated with workers, which includes their associated labor costs and finding ways to improve their productivity. It is important that cost-cutting measures not adversely impact corporate goals in the long run.

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Businesses that operate on a larger scale understand that growth leads to a dramatic increase in data and its importance to making great business decisions. A company's supply chain management directly affects its profit margins and technology can be used to improve its efficiency. If the costs of materials make up a large percentage of product expenses, a business should look for ways to obtain materials at lower costs or consider how to manufacture their products using a smaller quantity of materials. When leveraged with the right technology, data inputs can enable a business to gain visibility into its inventory levels, shipment status, and supply chain performance. Improved knowledge regarding the supply chain can be leveraged with contract negotiation software to improve contract terms, adjudicate disputes, and optimize service level agreements.

Businesses from Main St. to Wall Street may face similar issues regarding cost control challenges, but funding mechanisms for public agencies can create a different set of cost related issues. Government agencies often operate within annual budgets, making it challenging to plan for long-term initiatives. Unexpected budget cuts or delays can disrupt projects. Government procurement processes can be cumbersome due to bureaucratic procedures, lengthy approval cycles, and compliance requirements. These delays can impact project timelines and increase costs. Leaders must consider not only upfront costs but also ongoing maintenance, operational, and disposal costs. Focusing solely on initial expenses can lead to long-term inefficiencies.

Upgrading outdated technology can be expensive, but failing to do so may result in higher long-term costs due to inefficiencies and maintenance. Leaders should harness data analytics to optimize resource allocation, identify cost-saving opportunities, and enhance service delivery. Government leaders must balance fiscal responsibility, stakeholder expectations, and operational realities to achieve cost-effective outcomes. It's a delicate dance that requires strategic vision, adaptability, and a commitment to public service.

From the era of printing press to the internet, business leaders have always turned to technology to deliver on its promise to help solve their greatest productivity and efficiency challenges, in a cost-effective manner. According to Deloitte's 2023 Global Technology Leadership Study, the average tech budget as a percentage of revenue is 5.49%, up from 4.25% in 2020[1]. This indicates that businesses are investing more in technology, recognizing its potential to drive cost efficiencies and business growth. IT executives have been tasked with integrating the right technology solution into a business, with the hopes of addressing their cost-related challenges.

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Leveraging technology for financial success

Digital transformation, the process of integrating digital technologies to drive changes throughout an organization, can significantly impact financial prospects for businesses. More than just a technological change, a digital transformation allows leaders to evaluate their entire business model to find efficiencies and challenge assumptions on what adds value to the organization. Digital transformation may include using AI, automation, hybrid cloud and other digital technologies to capitalize on data and drive intelligent workflows, faster and smarter decision-making, and real-time response to market disruptions. Optimizing IT spend requires leaders to address a broad spectrum of issues, including workforce management and vendor relationships. Let's review some ways companies can leverage technology to reach its digital transformation goals.

Enterprise Resource Planning (ERP) and Manufacturing Resource Planning (MRP) systems play a pivotal role in process transformation. ERP, a comprehensive system that integrates all aspects of an organization, can modernize, consolidate, or upgrade the organization's infrastructure. Implementing an ERP system streamlines business processes by integrating various functions like finance, human resources, procurement, and inventory management. This leads to better cost control, improved efficiency, and accurate financial reporting. On the other hand, MRP systems, which can be standalone or part of an ERP system, are tools used by manufacturers to manage materials, equipment, and workforce within a production facility. They help ensure the right materials are available where and when needed in the production process, reducing excess inventory costs and minimizing stockouts. Together, ERP and MRP can streamline operations, automate processes,

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create a sustainable competitive advantage, and deliver critical benefits to a company.

One of the main advantages of a digital transformation is using technology to improve data collection, activation, and enrichment. Data is the resource that drives the economic engine for those who want to use technology to create maximum value. Digital tools allow businesses to collect and analyze data in real time. This data-driven decision-making process helps find ways to save costs, such as improving production schedules or lowering energy consumption. Using data analytics and machine learning, businesses can forecast demand changes, improve supply chains, and cut down on waste, resulting in cost savings. Improved data obtained from the digital transformation process can be used to automate machinery and business processes. Automating repetitive tasks with robot process automation reduces human effort, decreases errors, and increases efficiency. This directly affects operational costs. Workflow automation, enabled by new technology and data, can simplify workflows, shorten cycle times, and boost productivity. Remember that each business's digital transformation journey is unique, and the specific strategies will vary based on industry, size, and organizational goals. The key is to align digital initiatives with cost-saving objectives and continuously monitor their impact.

Examples of businesses using technology to affect cost outcomes

- The Internal Revenue Service (IRS) announced that it was using AI to 'help IRS compliance teams better detect tax cheating, identify emerging compliance threats and improve case selection tools.'

- Manufacturing companies have created supply chain control centers that provide operations visibility powered by AI and machine learning. This helps companies to anticipate and respond to issues using predictive autonomous capabilities.

- Retail companies are using autonomous vehicles for delivery solutions within a designated footprint, reducing its dependence on additional staff.

- Financial Institutions are using cloud computing for the faster development and scaling of new applications that are customer facing, such as mobile banking. These new products help those institutions to remain competitive and boost customer's satisfaction.

Exploratory questions regarding digital transformations

Many leaders tend to focus on saving money in the short term when they think about cost saving initiatives, instead of looking at the bigger picture. The truth is

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that improving your cost outcomes is not a simple trade-off. Leaders should consider their cost-cutting measures as part of a whole and in relation to how much they will affect the overall health of the business. Before leaders start the process of undergoing a potentially costly digital transformation, they should establish a basic framework that assesses the financial implications, capital costs, workforce implications, and efficiency goals. Some questions to explore are:

- What impact will this new technology have on my business outcomes?
- Will this implementation require a large upfront capital investment? What cost will we incur over the next 3 to 5 years?
- Which costs are truly fixed and which ones are variable?
- What is the degree of operational risk that will be associated with this implementation? Downtime? Interoperability?
- What is an acceptable timeline for realizing cost savings?
- Do we have a skilled workforce that can implement and utilize these new technologies to its fullest capability?

As well as knowing the right questions to ask about the impact of a digital transformation, leaders should have a consensus on how to measure success. Cost outcomes from digital transformations can be assessed by financial metrics such as the return on investment or payback time versus amount of capital spent. But cost outcomes should also include metrics to evaluate the technologies' effects on the workforce and the systems that they use. How will the new systems increase worker productivity? Will it change the daily work experience? How will this digital technology improve a process or system? How does this transformation enhance the company's efficiency goals? These are all important questions to think about the immediate and long-term effects of introducing new technology to your business.

Innovate or stagnate: cost-saving paradigms

In an era where digital transformation is no longer a luxury but a necessity, businesses are increasingly recognizing the pivotal role of technology in driving innovation and cost efficiency. Technology, when leveraged effectively, can serve as a catalyst for innovation, streamline operations, enhance customer experiences, and ultimately, contribute to a robust bottom line. Companies often operate in highly competitive environments. Embracing technology innovation allows them to differentiate themselves, improve efficiency, and stay ahead of rivals. Technology enables firms to adapt swiftly to changing market conditions, customer demands, and industry disruptions. It fosters agility, which is essential for survival and growth. Innovative technology solutions facilitate scalability, to help ensure smooth growth

without compromising quality. Leaders must understand that there is a symbiotic relationship between technology investment, innovation, and cost efficiency in today's dynamic business landscape. Below is a list of ways technology innovation is directly connected to business results:

- **Cost savings:** Automation, data analytics, and cloud computing drive cost savings. Leaders who leverage technology effectively can optimize processes, reduce waste, and enhance profitability.
- **Customer experience:** Technology enables personalized experiences, efficient customer service, and seamless interactions. Satisfied customers lead to brand loyalty and sustained revenue.
- **Service delivery:** Technology innovation enhances public services. From digital platforms for citizen engagement to streamlined administrative processes, it helps improve the overall quality of services.
- **Efficiency and transparency:** Modernizing legacy systems and adopting innovative tools can streamline government operations. Transparent data sharing and real-time information benefit citizens and agencies alike.

Technology innovation empowers leaders to drive growth, improve efficiency, enhance customer experiences, and address societal challenges. It's not just an option—it's a strategic imperative for success in today's dynamic landscape.

Cloud solutions for innovation

One of the most cost-effective technologies that can help an organization drive innovation is the adoption of cloud computing and its adjacent solutions. Cloud solutions refer to services, applications, and data storage delivered over the internet, enabling users to access resources on-demand without the need for local hardware or software infrastructure. They offer scalability, flexibility, and cost-effectiveness. Cloud services allow businesses to scale resources as needed, avoiding upfront infrastructure costs. The pay-as-you-go model of most cloud services allows businesses to pay only for the resources they use, leading to more efficient cost management. By eliminating the need for on-premises servers and data centers, businesses save costs on maintenance, upgrades, and physical space. As an indication of the importance of the cloud to business customers, in a recent press release, Gartner® stated that, "By 2028, cloud computing will shift from being a technology disruptor, to becoming a necessary component for maintaining competitiveness."[2] Cloud adoption is a strategic imperative for businesses that prioritize remaining competitive in the future.

76% of IT leaders agree that cloud-based UC&C has had a positive impact on their agility and responsiveness to business demand[3].

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Cloud solutions widen the lane down the road of innovation for companies seeking to revolutionize their industry and the way they do business. There are several ways IT leaders can leverage the functionality of the cloud for their strategic advantage. Cloud services provide flexibility and scalability, allowing companies to quickly adapt to changing market demands. Whether it's scaling up during peak times or experimenting with new features, the cloud enables rapid adjustments without significant infrastructure investments. Cloud adoption accelerates the development and deployment of applications. Companies can iterate faster, release updates more frequently, and respond swiftly to customer feedback, leading to faster time-to-market for innovations. Cloud-based analytics enable companies to collect, process, and analyze vast amounts of data. Cloud data can allow leaders to think deeper and create personalized customer experiences based on user behavior, preferences, and feedback. Insights derived from this data drive informed decisions and fuel innovation. The cloud facilitates seamless collaboration among teams, regardless of their physical location. Real-time document sharing, video conferencing, and collaborative development environments enhance productivity, foster innovation, and may lead to cost savings. Cloud platforms offer a wide array of cutting-edge technologies such as machine learning, artificial intelligence, and big data analytics. Companies can leverage these tools to gain insights, automate processes, and create innovative solutions.

Network for innovation

The seeds of innovation can begin to sprout by introducing specific outcome driven technologies into your business, but it won't truly blossom without a suite of technologies that can build upon the advantages of each other. A cohesive suite of technologies acts as a force multiplier for driving success in your performance, security, and financial future. An effective modern optimization effort may lead to creating energy savings, additional security benefits, and greater optimization of your overall infrastructure. Network modernization refers to the process of upgrading and optimizing existing network infrastructure to meet the needs of today's digital age. It involves implementing new technologies, such as virtualization, cloud computing, software-defined networking, and network function virtualization.

By using modern network practices, companies can speed up their time to market and improve their customer experience. For example, a global technology company that moved from an old-fashioned networking model to a microservices-based architecture cut down the deployment times for new services significantly. This speed-up enabled the company to quickly launch innovations to the market and capture new business opportunities.

Network modernization efforts that are done effectively can help a company recognize the full benefits of complementary technologies to enhance their business outputs. For instance, edge computing can boost the performance and

security outcomes, while reducing cost drivers, for businesses of any size. Edge computing enables computation and data storage to be closer to where data is generated. By processing data at the edge, companies can achieve lower latency, which is vital to industries where automation and autonomous vehicles are essential for daily operations. Since data storage is nearer to its source, edge computing helps process data for quicker insights. These insights can be utilized by software to create actionable tasks to improve operational efficiency. Edge computing also lowers costs by minimizing data transfer to central data centers. Companies can save on bandwidth usage and reduce vulnerabilities associated with transferring data over long distances. By minimizing data transport to central hubs, edge computing reduces the chance of data exposure during transit. Critical data can be processed locally, improving data security.

Integrating modern technology, alongside your legacy systems, is a critical enabler for businesses to effectively implement and utilize artificial intelligence (AI). By upgrading their network infrastructure to be more robust, scalable, and flexible, businesses can handle the high data volumes and computational demands of AI applications. The benefits of this modernization are manifold. Firstly, it enhances data transfer speeds and reduces latency, which is crucial for real-time AI applications. Secondly, it improves network reliability and uptime, ensuring that AI systems remain operational and effective. Lastly, it allows for better integration of AI with other technologies, such as IoT devices and cloud platforms, thereby expanding the scope of AI applications.

Consider a business in the retail sector, whether it be a small business or a large enterprise. With a modernized network, they could implement an AI system to analyze customer behavior data in real-time, gathered from both online platforms and physical stores. This AI system could provide personalized recommendations to customers, predict trends for inventory management, and automate various processes, thereby improving customer satisfaction, operational efficiency, and ultimately, profitability. This is just one of many ways a business can leverage AI through network modernization.

Network modernization can bring more business resiliency and cost effectiveness, sparking a wave of innovation. It can lower operational expenses and enhance resilience and availability. Furthermore, it can offer improved performance and operational efficacy, creating a better customer experience. However, implementing technologies that will modernize your network has its challenges. Security issues regarding the new network structure, lack of progress on network planning, and inadequate talent to set up and merge new network principles are some of the obstacles that can hinder or stop modernization efforts. Effective change management practices can help make sure that these difficulties don't interfere with modernization efforts. Organizations can help remedy these challenges by working with trusted partners, who have technical expertise and long history of implementing complex technology systems. While network modernization efforts offer cost efficiencies accompanied with innovation

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capabilities, leaders should conduct a thorough cost-benefit analysis to fully understand the financial and strategic impact before embarking upon that journey.
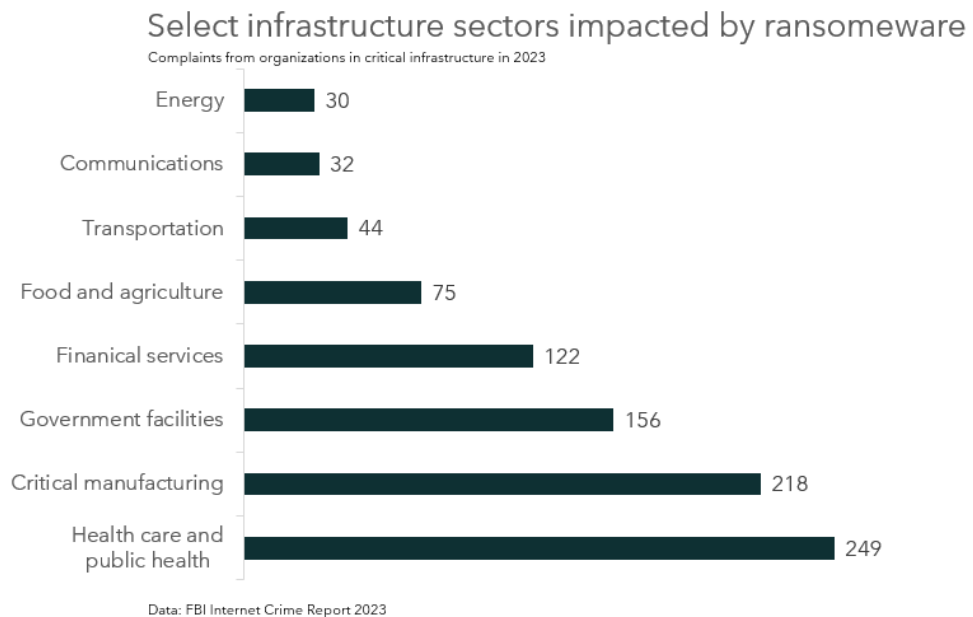
Cost-effective safeguards: navigating cyber challenges

Innovation is a way for organizations to embrace technology and create a better tomorrow, but leaders also need to be aware of the potential risks of getting ready for the future, especially safeguarding their businesses from threats. Digital transformation has improved productivity and profitability, but it also has opened more chances for bad actors to access vital systems. As organizations become more digital, they also become more vulnerable to various cyber threats such as data breaches, ransomware attacks, and phishing scams. These threats can lead to substantial financial losses, damage to the company's reputation, and loss of customer trust. Moreover, the process of recovering from a cyber-attack can divert resources away from the digital transformation efforts, slowing down the pace of innovation. The Ponemon Institute estimated that the average cost of a data breach in 2024 is $4.5 million, a 12% increase from 2020[4]. This figure reflects the comprehensive costs associated with a data breach, such as detection, containment, recovery, notification, legal, regulatory, and reputational costs[1].

Ransomware and healthcare

In recent years, ransomware attacks have risen in frequency and damage potential for organizations of all sizes. These attacks can result in the loss of essential data and operational downtime, disrupting regular business operations. In many cases, organizations are forced to pay large sums of money to attackers to regain access to their data. The financial impact of ransomware is substantial, with companies paying 1.1 billion in extortion payments in 2023[5]. Moreover, these attacks can cause reputational damage that is difficult to quantify but can have long-term effects on a business. As cybercrime continues to evolve, businesses must invest in robust cybersecurity measures to protect against these threats.

An industry that has experienced the harsh effects of ransomware has been the Healthcare industry, private and public institutions. The healthcare system is ripe for cyberattacks due to its interconnected IT systems across multiple sites, large amounts of patient data, and network of connected medical technologies. In 2023, more than 540 organizations and 112 million individuals were implicated in healthcare data breaches reported to the HHS Office for Civil Rights (OCR), compared to 590 organizations and 48.6 million impacted individuals in 2022[6]. Ransomware groups are infiltrating software, stealing patient data, encrypting networks and seeking payments from hospitals to restore access to networks.

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Attacks can have negative effects on the patient's experience with hospitals postponing elective surgeries, temporarily diverting services, and pausing critical lab services. Patients could deal with longer wait times and resource constraints that result in poor patient experience. In the healthcare sector, the average cost of a data breach was the highest among all industries, reaching $10.93 million. Breaches involving multiple environments had the longest detection and containment time, averaging 291 days. Healthcare data breaches tend to last 231 days before discovery, compared to 204 days across other industries[7]. Cybersecurity attacks pose a severe threat to the US healthcare system, affecting patient safety, operations, and financial viability.

Select infrastructure sectors impacted by ransomeware
Complaints from organizations in critical infrastructure in 2023

Sector	Complaints
Energy	30
Communications	32
Transportation	44
Food and agriculture	75
Finanical services	122
Government facilities	156
Critical manufacturing	218
Health care and public health	249

Data: FBI Internet Crime Report 2023

Cybersecurity without sacrificing your budget

Organizations of all sizes should begin the process of securing their technology infrastructure by assessing and practicing cost effective security practices. That process should begin by having your IT staff conduct regular risk assessments to identify vulnerabilities and threats. Assessments should seek to identify and prioritize risks based upon the potential impact of a breach and the likelihood of an occurrence. This includes considering incident response costs (such as outsourced IT & equipment, external counsel, etc.) and recovery costs (like customer attrition, sales pipeline, etc. Special attention should be paid to new technologies or connected devices that are part of the larger technology infrastructure.

A popular framework for improving and evaluating cybersecurity, and is viewed as a standard for many industries, is the Zero Trust security model. This framework has shown that it also reduces security spending and the overall cost of a breach.

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The Zero Trust model operates on the assumption of "never trust, always verify," requiring verification for every access request. It assumes nothing and no one should be trusted until proven otherwise, and then continuously assessed for risk. This approach helps reduce the attack surface and makes it more difficult for attackers to gain access to sensitive data.

Underinvestment can lead to vulnerabilities. It's estimated that the average company spends approx. 10% of their IT budget on cybersecurity[8]. Whether its by reinvesting cost savings from other parts of the business, or through outside funding sources, leaders must understand that investing into cybersecurity is critical to upholding customer trust and protecting their bottom line.

The implementation of cybersecurity technology plays a crucial role in offsetting and preventing costs associated with cybersecurity threats. As we increasingly rely on digital platforms, we become more exposed to various cybersecurity risks. However, technology alone is not sufficient. It must be complemented by an effective security policy that outlines the organization's approach to managing information security. When technology and policy are effectively integrated, it can lead to greater cost outcomes for the organization. Not only does it prevent financial losses associated with data breaches, but it also helps maintain customer trust and protect the organization's reputation.

Conclusion

A cost management strategy is only effective if it is transformational, lasting, and sustainable. With an end-to-end budget or headcount reduction, the impact is immediate—but the benefits don't last. Leaders across sectors must be deliberate in creating a plan that balances the overall strategic goals of the organization, while pushing for cost efficiency and greater productivity. To create a sound cost strategy, the initial step is to take an honest and holistic assessment of your operations. Leverage advances in technology to supercharge work productivity or the efficiency of your current IT infrastructure. Finally, future proof your organization with a combination of cybersecurity policy and technology. This combination is necessary to defend against bad actors that aim to destroy your profits through a costly repair to your systems and reputation.

Footnotes

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Why Lumen?

Lumen is your single provider to enable digital transformation. With a comprehensive portfolio and experienced talent, we can help safeguard your customer experience, protect your confidential data, and manage threats. Backed by the extensive and deeply peered Lumen global network, Black Lotus Labs® threat intelligence, and our skilled and experienced team of security experts, Lumen is a trusted partner to help improve your security posture.

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