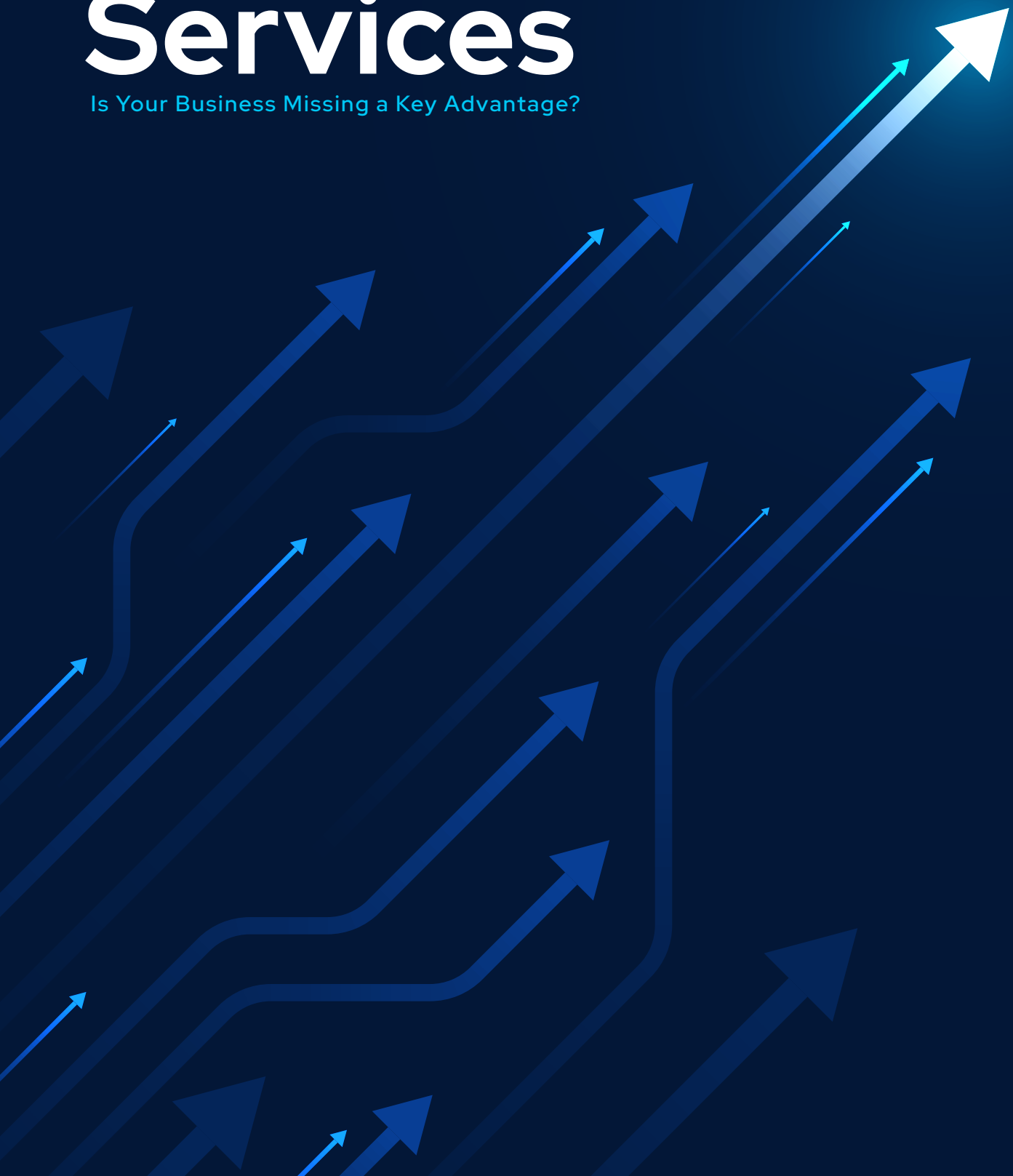# Managed
Services

Is Your Business Missing a Key Advantage?

Managed Services
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The last decade or so has seen a massive shift in the way that technology enables business. At one time, IT infrastructure was seen as an operational tool enabling greater efficiency for core office operations. Today, however, any business looking to continue to grow and stake out a leadership position in their market needs more. Not only must they have the typical underpinning of solid back office infrastructure supporting their business, but they also need to leverage technology as a means of increasing efficiency while also differentiating their customers' experiences.

From banking to healthcare to retail and even agriculture, a digitization of nearly all parts of the enterprise is underway as CEOs see the $18.5 trillion of economic value add coming from increased efficiency due to digital transformation. Consider that healthcare—notoriously inefficient in many ways—made up 18% of the US GDP in 2019[1], or that 68% of energy is wasted,[2] and the economic impact of increased efficiency through automation and digitization becomes apparent. It is little wonder that the forecast is for businesses to invest nearly $5 trillion in digital transformation programs over the next three years.[3] The implications cover every aspect of commerce:

B2B operations for supply chain and smart warehouses, new options for customer engagement and support, and evolving, AI-driven intelligent applications assisting in decision making, task management and functional automation.

But providing the IT staffing and resources needed to implement this transformation is an obstacle to success for many businesses. Finding qualified and experienced personnel simply gets harder every year. In fact, as many as 75% of organizations are predicted to experience visible business disruptions because of infrastructure and operations skills gaps in 2020[4]. Another rising challenge is that the same transformation tools designed to help businesses improve their efficiency for business operations and revenue generation also increase complexity. The interdependence of these systems creates an ironic productivity sinkhole that IT departments all too easily fall into. Many IT leaders are finding that just keeping pace with the rate of change creates a continuous treadmill of activity—an unfortunate circumstance that eventually begins to inhibit both staff output and the technology innovation that their companies are relying on them for, rather than promoting it.

1 https://www.statista.com/statistics/184968/us-health-expenditure-as-percent-of-gdp-since-1960/
2 https://www.weforum.org/agenda/2018/05/visualizing-u-s-energy-consumption-in-one-chart
3 DX statistics quoted from IDC "Digital Transformation; Technology and Industry Outlook" , May 2019
4 CIO.com, "IT Skills Gap: Fact vs, fiction" October 2018

Cost optimization and finding ways to improve operational efficiency have always been table stakes for IT leadership, but the scrutiny on IT ROI only intensifies as spending increases to support these new systems. Simultaneously, the negative consequences to a company of security breaches, compliance or regulatory errors—or even just application or access downtime—have never been higher. But the reality that managers often face is that even with larger budgets and expanded support for IT-led innovation programs, their staff still spends more than half of their time bogged down with operational churn.[5]

So how does an organization's IT team get off this treadmill? For many, a trusted managed services partner can help change the game. Companies of all sizes have begun looking for alternatives to traditional data center management operations that will allow them to scale, innovate and to respond to the rapidly changing needs of the business with agility. Partnering with a reputable managed services provider can help overburdened IT departments do just that. By taking advantage of these services, in combination with a move to a true hybrid IT model, companies take advantage of the financial benefits of moving more of their budget to a predictable and manageable OpEx model. In addition, their most valuable internal resources are able to focus on the projects that produce the biggest bang for the buck rather than tactical, day-to-day operations.

This eBook explores three key areas of managed services: Managed Infrastructure, Managed Security and Managed Networks. It is worth noting, however, that some elite providers offer a robust suite of managed services offerings that may include:

- Managed Databases
- Managed Operating Systems
- Active Directory-as-a-Service
- Managed Security
- Disaster Recovery-as-a-Service
- Automated DDoS protections
- Managed Firewalls
- Managed IP Bandwidth
- Storage Management
- Colocation Management
- Cloud Management

Managed Infrastructure Services

Managed services for infrastructure operations is one of the areas that many businesses can easily adopt to see an immediate impact to their staff efficiency. Day-to-day operations are essential for maintaining critical, mission-dependent services, but are also one of the biggest productivity killers in the daily workload of many IT team members. Leveraging an extended managed services team frees in-house staff from task-based work such as hardware maintenance, refresh cycles, platform and application monitoring, patching and updating.

Businesses are then able to redeploy staff resources to higher-impact projects while freeing them up to be more responsive to dynamic business demands. An added benefit of this approach is the ability to shift the CapEx burden of annual technology refreshes to OpEx. The economies of scale available through managed infrastructure in a hosted cloud or colocation environment not only provide an opportunity to minimize capital outlays during uncertain economic times but allow for a more predictable and manageable operating model on an ongoing basis.

The infrastructure needed to run the myriad workloads supporting the business does not need to be a deprecating liability on the balance sheet. Instead, it can form the basis of a dynamic service that scales to the needs of the business with minimal staff resource outlay. This applies to both the planning and deployment of new equipment, as well as the ongoing maintenance of those systems. The onus of lengthy systems deployment windows and pre-production stress testing of new hardware is shifted entirely to the managed services team. It also ensures that as new innovations and operating models become available in the industry, businesses have a team of experts already in place. This means always up-to-date compliance and best practices being consistently followed—without having to invest in retraining existing staff or hiring new talent and getting them up to speed.

Another benefit that good managed services providers offer is the ability for on-premises, hosted and cloud-based systems to be treated as a common set of resources. Workloads reside wherever it makes the most sense for the particular performance, security and resilience needs of a given application. Managed services staff can go so far as to provide ongoing monitoring to help ensure that unexpected growth in any particular application can be managed seamlessly.

Beyond the challenges of hardware lifecycle management, however, lies the real day-to-day efficiency drain on IT resources: infrastructure and platform maintenance operations. Between regular firmware updates and OS releases there are the requirements of myriad security patches, driver updates, break-fix needs and ongoing integration testing. This kind of click and repeat task work can quickly consume staff time and only becomes more challenging as infrastructure deployments grow and become more interdependent. Managed infrastructure services mean an end to the guesswork and hours of research through hardware and software support matrices. The staff of quality managed service providers should bring decades of experience and deep knowledge of current systems to bear on infrastructure deployments of all sizes.

The range of Managed Infrastructure Services typically includes:

- Infrastructure design guidance
- Patching platform and infrastructure components up to the application layer
- Updating firmware, drivers and system BIOS
- Backup, recovery, and archiving policy and operations management
- Refreshing infrastructure hardware to take advantage of new technologies
- Optimizing system performance
- Improved storage capacity efficiency
- Scaling infrastructure as needed based on seasonality and growth
- Advanced capabilities managing hybrid public/private cloud solutions

Managed Security and Disaster Recovery Services

Security breaches of IT systems are not only a risk to mission-critical application availability and data integrity, but can also carry severe financial and legal consequences. With an explosion of ongoing threats that include attacks as well as hardware and platform vulnerabilities, ensuring system and data security is an ever-evolving and increasingly challenging problem for all businesses. Keeping pace with these dynamic threats, in addition to the new standards for compliance and data security and integrity laws, is a significant commitment of time, money and resources for any IT department. To protect these systems and maintain user uptime, the best defense is planning and preparation coupled with active and ongoing monitoring. This includes even the smallest threat vectors, not just keystone systems running business critical workloads. Comprehensive managed security services perform a multitude of tasks: threat detection, polymorphic (sandbox) and profile-based virus and malware protection, remote access support for geographically diverse organizations, regular disaster recovery plan reviews and functional audits.

Whether your workloads run in the cloud, on systems hosted in secure data centers, or a hybrid of on-premises, hosted and cloud-based deployments, you should be able to rely on your managed security and disaster recovery services team to ensure that your systems remain highly available and secure. The security specialists you rely upon should be continually trained in the latest updates to regulatory compliance requirements and the latest best practices. This includes legal compliance with such standards as the Health Insurance Portability and Accountability Act (HIPAA) or the Federal Information Systems Management Act (FISMA) as well industry standards such as the Payment Card Industry Data Security Standard (PCI DSS).

There are times, though, when even the most robust plans are unable to predict or prevent trouble from striking. Whether it is a far-reaching catastrophe affecting the whole globe or regional natural disasters restricting access to data centers and systems, businesses need to be prepared to handle whatever comes their way. With real-time event management assuring workload uptime and user access, managed security service clients are able to focus on responding to the needs of employees and their customers instead of their infrastructure.

This kind of location-independent disaster mitigation can be supported by providers who have a nationwide network of data centers and support teams. That kind of coverage means that whether it is the failover of a single system or an entire site, business can continue with minimal disruption on a timeline established by the company, not by the disaster. By working closely together, exceptional partners help businesses not only assess and prepare their security and disaster recovery policies, but also minimize the exposure and help restore ongoing operations after an incident occurs.

Managed Security Services often include:

- IT security and compliance assessments
- Ransomware readiness and risk assessments
- Network and systems vulnerability scanning and monitoring
- Cybersecurity program management
- Remediation, forensics and security transformation services
- Complete penetration testing including Active Directory, web and mobile applications, and social engineering

Managed Network Services

Infrastructure and security services can help ensure availability and uptime, but ultimately user and consumer satisfaction hinges on performance as well as access. That performance is most-often determined by the network itself rather than any of the systems connected on it. Without a high-speed, low-latency network providing a secure and stable connection to IT compute and capacity resources, the user's experience fails.

Increasingly, this experience extends beyond the data center and office headquarters, reaching all the way to the factory edge and the end consumer. Big Data workloads, network-based applications, the Internet of Things, and the ubiquity of cloud computing as a key element of infrastructure growth all contribute to clogged bandwidth and increased latency in network responsiveness. From smart cities to wearable health devices to gaming and entertainment, enabling edge, near edge and multi-location services requires a flexible, secure architecture. That network must be capable of successfully managing the exponentially larger volumes of data that are generated in both the data center and the edge—and delivered across the entirety of the enterprise. Distance becomes an additional challenge. The farther from the data center the infrastructure sits, the smaller deployment and thus, less efficiency in having on-site technical staff to facilitate operations, updates and upgrades, and new deployments. A workable solution demands not only the optimal connection to and between these edge and near edge sites but also a way to manage them efficiently.

What exactly does that kind of solution look like? It starts with a service's actual backbone, which should be flexible and responsive. Superb speed is non-negotiable. Scalability is critical because usage demands can vary greatly from business to business and even within a single organization. Size is important because more virtual cross connects providing access to carrier hotels and peering exchanges, and multiple cloud nodes ensure that computing and data storage resources are available at all times and in all locations. However, the physical network itself is only a part of the value that network providers can offer to your business.

Another core factor is the suite of services that are offered. What level of uptime commitment and protection is being offered—and at what cost? Is there an additional portfolio of interconnection services? A good partner can help alleviate many of the burdens of network management, from strategic assistance in vendor management (both carriers and hardware providers) to patching and security, from overtaxed IT staff. That combination—a robust physical network of data center infrastructure plus supportive team members that enable increased in-house productivity, security and stability—is what will deliver the greatest value to your company.

As IT infrastructure and strategies evolve to handle increased workload demands and the business needs of technology as a revenue engine, the network needs to adapt at pace to provide a seamless, secure and performant online response.

A solid portfolio of Managed Network Services should include:

- Monitoring and management of network architecture, routing and configuration
- Predictive capacity planning and network utilization monitoring
- Core-to-Edge data center network mapping and 100% uptime assurance
- SLA reporting
- Billing management
- Hardware / infrastructure lifecycle management and updates
- Carrier maintenance planning
- Integration between hosted resources and hyperscale cloud providers
- Automated security controls and monitoring
- 24x7 network support staff

Accelerating Digital Transformation with Managed Services

Digital transformation is no longer a question of if or when, but rather how and how soon, for any enterprise. This represents the single biggest evolution in IT since the advent of the commercial internet. Yet budgetary constraints brought on by economic fluctuations and a shortage of qualified, experienced IT professionals mean that the traditional tools of business problem-solving—equipment and staffing—are not available, nor even sufficient to address the challenge. To meet the increasing demand and accelerating pace of change required to deliver this transformation, competitive businesses must take advantage of managed services. In fact, managed services are, now more than ever, considered a core part of any digital transformation strategy.

Managed services offer the short-term benefits of leveraging expertise from highly qualified specialists to plan and deploy new solutions and services. However, augmenting the capabilities of in-house staff also provides the ongoing benefit of increasing IT department productivity and responsiveness without having to make significant investments in training and equipment. The inherent complexity of highly interdependent systems plus the increased maintenance requirements of a larger infrastructure footprint can inhibit innovation; staff are forced to spend time and resources on repetitive task work and operations that are not easily automated. By taking advantage of platform and workload specific specialists alongside hosted and colocated infrastructure services, IT leadership is able to free up both staff time and capital expenditures for more strategic programs.

While IT staffs still retain full control of applications and business outcomes, these managed services allow them to abstract as much of their IT estate and underlying infrastructure as they want. Between gains in productivity and getting off the hamster wheel of refreshing old hardware every year, managed infrastructure services offer IT shops a way to help their people do what they do best, without sacrificing expense optimization demands and enabling faster time to revenue on strategic initiatives by freeing up valuable resources for innovation and agile business responses. Security and disaster recovery services ensure uptime as well as data integrity and availability while guarding against breaches and compliance violations. Network services including managed IP bandwidth and firewalls provide a resilient, stable and high-performance backbone for mission-critical workloads regardless of whether employees are all in a single site or spread out across the world.

Flexential Managed Services

Flexential has always taken pride in our commitment to offering a personal approach when working with our customers to tackle their IT challenges. However, this focus on service at the core of our business relationships has sometimes obscured the fact that, beyond our outstanding customer support and hosted data center solutions, we also offer a full spectrum of customizable managed services to our customers. With a nationwide footprint including 40 data centers connected via a 100 Gbps backbone, Flexential managed services are a smart way of ensuring that internal service levels are not impacted,

regulatory compliance is handled, evolving security standards are met and capital expenditures are potentially reduced. Flexential experts are ITSM and ITILv4 certified and all facilities meet government and industry compliance requirements as well as carrying ISO 2000-1 and SSAE 16 Type II certifications. If you are looking for IT optimization and digital transformation that allow companies to efficiently balance the four basic needs for IT–resilience, performance, security and cost–managed services from Flexential may be your next logical step.

ABOUT FLEXENTIAL

Flexential empowers the IT journey of the nation's most complex businesses by offering flexible and tailored solutions in colocation, cloud, data protection, managed and professional services. The company builds on a platform of three million square feet of data center space, in 20 highly connected markets and the FlexAnywhere™ 100 GB private backbone, to meet the most stringent challenges in security, compliance and resiliency. Visit www.flexential.com.

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