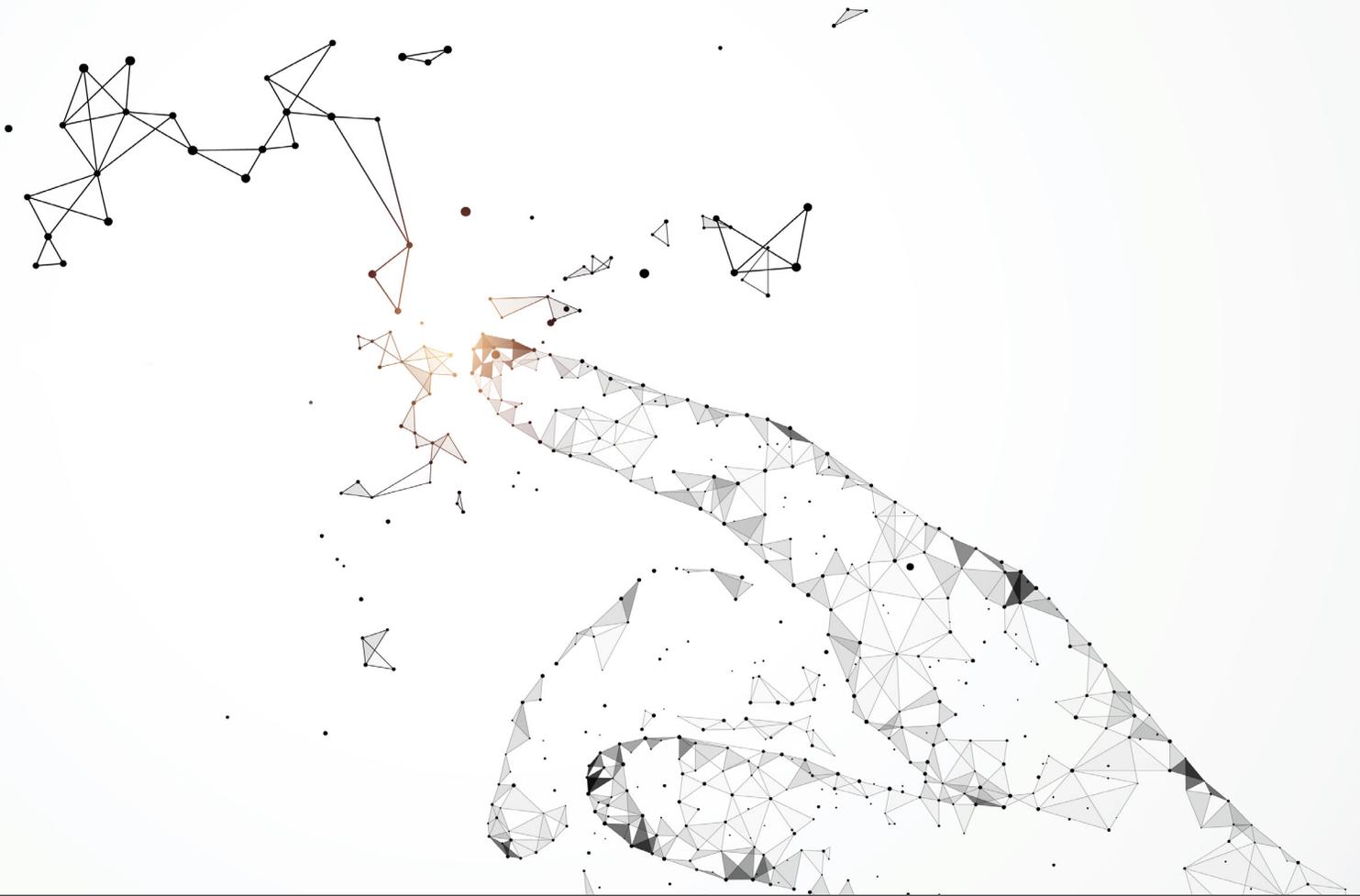


Unlocking the Power and Promise of the Public Cloud



 Synoptek®

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I. Executive Summary

Just as the experts predicted: Cloud computing is dominating enterprise IT. Nearly all organizations (95%) are using cloud, and 85% have a strategy to use multiple clouds. By 2020, corporate “no-cloud” policies will be as rare as “no internet” policies are today. “Cloud first” strategies are now ubiquitous in the enterprise.

Why? Because the cloud delivers greater flexibility and agility. It increases IT performance and scalability, while enabling new efficiencies and cost savings. And the cloud provides a robust platform with security and compliance that’s better in most cases than on-premises standards.

But what if these kinds of promises aren’t being realized from your cloud deployment strategy? What if you can’t seem to get your cloud to deliver?

When you look beneath the covers of continuously increasing cloud adoption rates, the ugly reality is that many enterprises’ cloud expectations are not being met. Their costs are higher than anticipated, and they don’t know why. Their cloud operations are less efficient than they should be. They’re finding they don’t have the skills or resources to implement or manage a successful cloud strategy. They worry about security and compliance because they don’t know where hosted cloud security ends and their

corporate responsibility begins, or where their data will be stored.

These enterprises know cloud computing is core to a progressive IT strategy and future business growth, but they have not been able to fully maximize its capabilities or realize its benefits.

Many businesses turn to a cloud consultant for answers. But simply hiring someone to migrate your applications and workloads to the cloud doesn’t guarantee a cost-optimized and security-hardened solution. Harnessing the power of the cloud for the greatest possible return takes working with a managed cloud service provider with the expertise and resources to capture the full capabilities and value of an enterprise-class cloud platform, such as Microsoft® Azure™.

This white paper looks at why many enterprise cloud strategies are not working, and what they need from a managed cloud service provider to capitalize on the rich capabilities and benefits the cloud can deliver. Specifically, it will explore how Synoptek, a Microsoft Gold Cloud Platform Partner, and its Managed Microsoft Azure Cloud Service can help your enterprise unlock the power and the promise of Azure.

II. Where Enterprise Cloud Problems Begin

Many enterprises begin their migration to the cloud when individuals or teams within their organization start incrementally deploying cloud services. IT leaders eventually discover that mistakes made along the way are adding up to an unmanageable, inconsistent, corporate-wide cloud mashup. Or perhaps they developed a strategy and started their cloud journey, only to realize that they don't have the proper expertise or resources to successfully see it through. This can lead to a host of problems, including:



Users who are dissatisfied with application or workload performance



Wasted compute cycles or storage capacity from idle and underused resources



Unforeseen costs, with no clear indication of where they came from



Weak security practices lacking controls and audit trails

Organizations encounter five main problems that can cause them to take too long to migrate to the cloud, wait too long to experience its advantages, or even force them to abandon their cloud projects completely.

1. THE CLOUD SKILLS GAP

The “cloud skills gap” refers to the shortage of people trained to develop and deploy software that can keep pace with and maximize the cloud’s expanding capabilities. A recent global survey of nearly 900 IT executives showed that 64% of companies see a looming shortage of cloud developers and are feeling its impact, and 57% said the shortage has already affected their ability to hire new people. With Cisco projecting cloud traffic to more than triple between 2015 and 2020 to 14.1 zettabytes annually, the pressure to either build up or supplement corporate cloud prowess won’t ease anytime soon.

2. UNCONTROLLED COSTS

The cost savings associated with cloud adoption are perhaps its chief appeal. And lower costs seem almost guaranteed after you cut loose from all sorts of on-premises hardware, infrastructure and management overhead and gain greater computing, storage, applications or analytics capabilities that you only pay for when you need them. But those cost savings often don’t materialize.

This skills gap reveals itself in three key ways:

1. An inability to conceive the needed cloud solution
2. An inability to architect the solution
3. An inability to implement the solution

Given the rapid pace of cloud change and innovation, it’s difficult for enterprises to get ahead of this problem, even as it becomes increasingly critical to do so.



II. Where Enterprise Cloud Problems Begin

In a survey of IT professionals, “managing cloud spend” tied for first as the top cloud challenge, with 25% of respondents naming it as a significant problem. The reality is, when you consume something as a service, it’s easy to abuse it, like forgetting to turn off the light after you leave the room.

“Enterprise cloud consumption often isn’t well planned, measured or managed.”

Enterprise cloud consumption often isn’t well-planned, measured or managed, so resources can be wasted. Here are some key issues that can lead to runaway cloud costs.

- **Oversized workloads:** What exactly does an application need to run at optimum performance and efficiency? Sometimes, companies simply don’t know, so they overprovision resources and end up drastically overpaying.
- **Undersized workloads:** Not knowing or paying attention to the optimal requirements for a cloud application can also lead to waste. Workloads operate with low performance and low efficiency when adequate resources aren’t allocated.
- **Unused resources:** Storage and compute power are often allocated for projects that are stalled or no longer needed and forgotten. Identifying and freeing up those resources produces instant savings for organizations.
- **Use of spare cloud capacity:** Azure offers spare capacity at an extreme discount, and knowing how and when to use this extra capacity can reduce costs dramatically.

- **Mystery consumption:** Companies don’t always have a handle on exactly what resources they need and what they are using, though it’s not always their fault. In a global study, 39% of respondents said they’ve paid for cloud resources they didn’t use, mainly due to a lack of transparency from their cloud providers.

3. OVERAMBITION

Another common issue is trying to do too much in the cloud all at once.

The cloud is a revolutionary technology, and companies can initially be overwhelmed with its possibilities. They want total transformation through adoption of PaaS, containers and orchestration, but their goals are too ambitious and they simply can’t execute on them. They pour in resources and fund contractors for large projects, and in the end, they’re left with giant overruns or run out of funds to finish the entire project.

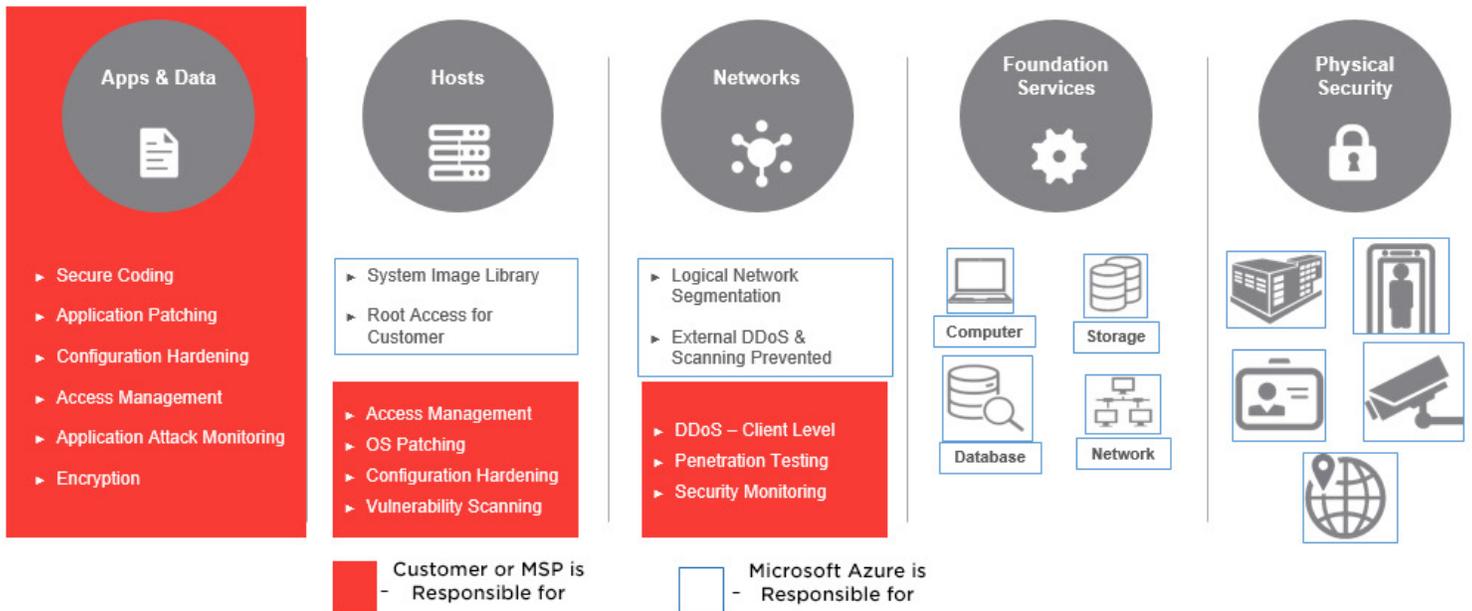
Yes, it’s hard not to get “big eyes” when the possibilities of the cloud become apparent to a new adopter. But that’s exactly why businesses need to tap into sound advice from experienced cloud experts from the outset.

4. MISUNDERSTANDING SECURITY RESPONSIBILITIES

Enterprise trust in the security of the public cloud is improving. For example, 62% of organizations in one survey reported storing personal customer information in public clouds, a sign of growing public cloud faith.

But even as trust in cloud increases, businesses still have an imperfect understanding of their security responsibilities in the cloud, often wrongly believing the cloud provider is responsible for securing their data. This can lead to increased security risks, potential data loss and failure to meet compliance and regulation requirements.

In fact, security in the public cloud operates under a “shared responsibility” model. Within this model,



the cloud provider manages the security of the cloud, while security in the cloud is the customer's responsibility. That can include data protection, identity and access management, operating system configuration, network security and encryption.

Protecting an environment in a virtualized cloud is a lot different than protecting it on-premises, but the stakes are the same – an enterprise's reputation and reliability are at risk. And even those companies that understand their shared obligations often need help protecting their workloads. Unfortunately, the cloud-skills gap also comes into play here, with 49% of respondents in one study saying they had slowed cloud adoption due to a lack of cybersecurity skills.

The responsibilities are huge, and it's difficult to find someone familiar with cloud security best practices and knowledge of an individual enterprise's policies, access controls and data logs, so they can spot anomalies and possible intrusion. Ultimately, this leaves enterprises much more vulnerable in the cloud than they should be.

5. MANAGED CLOUD SERVICES PITFALLS

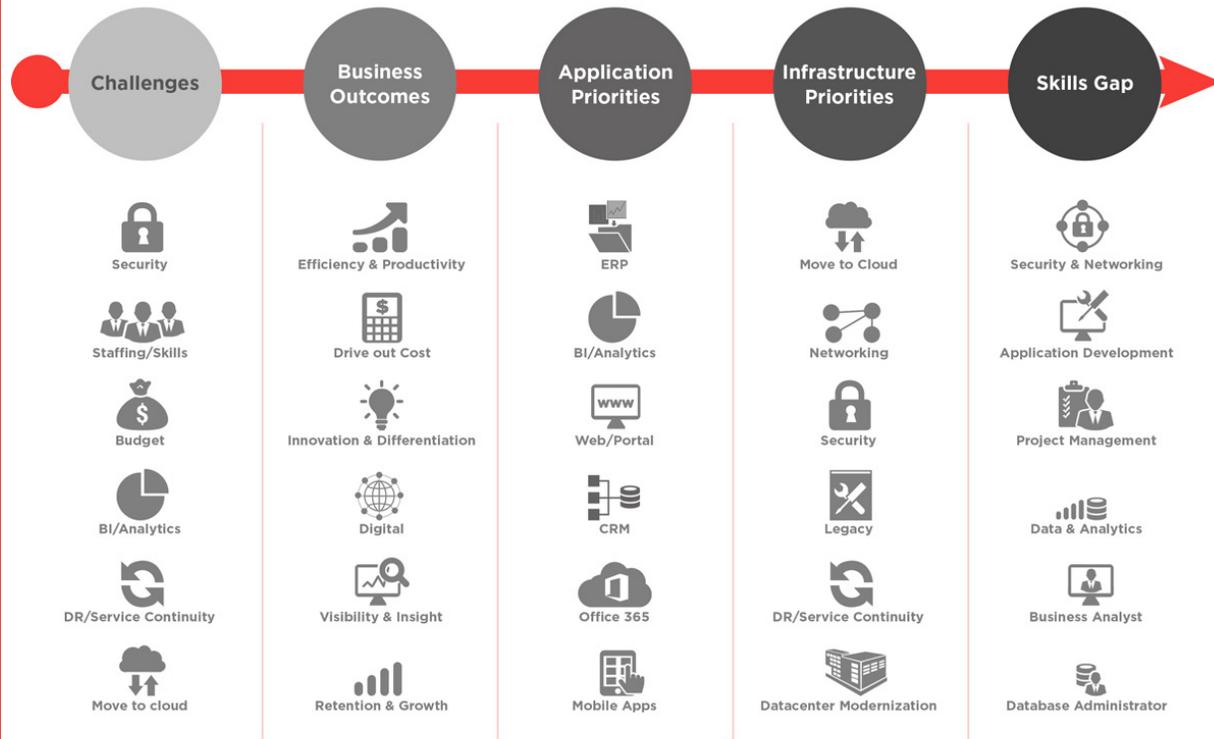
A Forrester Research study points to the challenges companies face dealing with their managed cloud service provider (CSP), reporting that more than 50% of cloud customers say their CSP needs to be "more transparent and act as true partners." The survey also cites three primary reasons for customer dissatisfaction with CSPs:

“ Even as trust in cloud increases, businesses still have an imperfect understanding of their security responsibilities in the cloud. ”

1. A lack of detailed compliance information to satisfy auditors
2. Poor usage, performance and cost transparency, causing financial or operational impacts from missing or hidden data
3. The inability to talk to an expert who understands their business when problems arise

As is the case with cloud platform services, not all managed cloud providers are equal. Many cloud providers are specialists in the "Day One" cloud onboarding, but are not experts at helping you assess or plan your cloud migration strategy beforehand. Or they may not have the system and 24x7 staff to help with the operational management, cost and performance optimization aspects of cloud services.

Choosing the Right Partner



To ensure that all your bases are covered, it's best to select a CSP that can partner with your business through the entire cloud journey of assessment, planning, migration optimization and transformation. Here are some important considerations when selecting a managed CSP:

- Does the CSP have the expertise and tools to provide data analytics, cost analysis and recommendations that will accelerate your cloud assessment and selection process?
- Will the CSP help you “right-size” your cloud configurations and find the best-fit cloud, given your evolving business requirements and budget?
- Can the CSP perform usage, performance and cost analysis on your cloud deployments, along with optimization recommendations?
- Does the CSP have 24x7 staff to monitor for performance and security issues, and remediate them?
- Can your CSP ensure that you will meet security, compliance and audit regulations?
- Use your answers to these questions to guide your managed cloud service provider selection and help you determine which cloud service or services best meet your short- and long-term business goals.



III. Start Your Cloud Strategy Off Right

Whether you've experienced all or just a few of these cloud challenges, getting past them is extremely complex and difficult for the typical enterprise to do on its own.

A basic cloud problem such as "failure to achieve expected cost savings" often results from chronic conditions, ranging from a lack of skills to ingrained cloud misperceptions. Even the most well-informed enterprise may not be equipped to fully take advantage of the cloud or avoid missteps. As Albert Einstein said, "Information is not knowledge. The only source of knowledge is experience."

To best profit from cloud experience, you must first build your cloud strategy with a provider that has a global, enterprise-class platform to serve as a flexible, robust, resilient and secure foundation. That's Microsoft Azure. Then you should find a CSP that has deep, proven experience in the Azure platform. This CSP should enable you to avoid potential problems, realize opportunities, craft sound strategies to optimize your cloud environment, and then help you implement and manage it from end to end. That's Synoptek.

MICROSOFT AZURE - A GLOBALLY TRUSTED CLOUD PLATFORM

Azure is a growing collection of multiple, integrated cloud infrastructure and platform services, including cloud, virtual machine, application hosting development and testing, database, security, compliance, and storage backup and recovery. These services enable businesses to build, deploy and manage high-performance and compliant cloud solutions worldwide.

Azure is one of the largest and most trusted global cloud platforms, and it's home to 90% of the Fortune 500. There are 40 global Azure regions and 120,000 new Azure customer subscriptions per month.

“Synoptek can maximize the value of your Azure cloud investment and minimize your risks.”

III. Start Your Cloud Strategy Off Right

466%

Five-year, risk-adjusted return on investment (ROI)

50%

Improved application time-to-market

80%

Reduced IT application administrative time

Companies that migrated to Microsoft Azure Platform-as-a-Service(PaaS) significantly streamlined and automated their processes.

Azure gives developers and IT professionals the freedom to globally build and deploy applications using the tools, applications, and frameworks of their choice, including solutions for integrating on-premises private IT and public cloud technologies in a hybrid cloud.

According to Forrester Research, companies that migrated to Microsoft Azure Platform-as-a-Service (PaaS) streamlined and automated their processes across key functions and lines of business. This enabled a representative organization, based on existing Azure PaaS customers, to experience a five-year, risk-adjusted return on investment (ROI) of 466%. Application time-to-market was improved by 50% and IT application administrative time was reduced by 80%.

SYNOPTEK MANAGED CLOUD SERVICES FOR MICROSOFT AZURE

Azure's breadth and depth of services is best maximized by a company like Synoptek, a Microsoft Gold Cloud Platform Partner, a Microsoft Cloud OS Network Partner, and a five-time Talkin' Cloud Top 100 Cloud Services Providers award winner.

Synoptek has more than 300 IT professionals in 20+ cities and offers a range of managed cloud services that will help you plan, build and run your Microsoft Azure cloud environment. It uses a robust and reliable centralized management system to provide a comprehensive set of managed cloud services that combine the benefits of Microsoft Azure cloud hosting with cloud assessment, planning, management, review, optimization and 24x7 customer support. Synoptek customizes Azure public cloud solutions for your specific business requirements, delivering services and value that you need, but which don't come with typical cloud hosting.

“ Azure is home to 90% of the Fortune 500. ”

The following sections describe Synoptek's comprehensive, end-to-end Microsoft Azure managed cloud service capabilities and how they can help you develop and deploy a winning cloud strategy.



IV. Synoptek's Managed Cloud Services for Microsoft Azure

When you partner with Synoptek to tap into its Azure expertise, you have chosen an approach that will help you avoid or address many of the common problems associated with enterprise cloud adoption.

- **Managed Cloud Assessment and Planning Service** enables you to assess and plan the most efficient and effective cloud resource sizing and allocation to avoid initial over-provisioning that can contribute to cost overruns. As part of this service, your security and compliance considerations will be evaluated, and you will be provided with recommendations for the safest cloud deployment. You'll also get help planning a successful cloud migration strategy, regardless of size or complexity, that will harness the full value of Azure.
- **Managed Microsoft Azure Cloud Service** gives you the visibility and tools you need to continuously optimize your Azure service performance and usage, efficiently implement updates and changes, ensure maximum security, save on costs and plan for the future. This service helps your business realize the greatest Azure cloud return on investment.

“Build a roadmap to the Azure cloud, reducing migration planning cycles by up to 70%.”

Following is a more detailed overview of each of Synoptek's hosted cloud services for Microsoft Azure:

MANAGED CLOUD ASSESSMENT AND PLANNING SERVICE

As you start mapping out your Microsoft Azure cloud migration strategy, Synoptek's Cloud Assessment and Planning Service can maximize the value of your Azure cloud investment and minimize your risks. This service helps you tackle or avoid common cloud challenges, such as over- or under-provisioning, by providing visibility into your entire on-premises infrastructure. It includes actionable, vendor-agnostic analysis that empowers you to make accurate, data-driven decisions during each stage of your cloud migration.

IV. Synoptek Managed Cloud Services for Microsoft Azure

ASSESS

The assessment phase makes sure you are well positioned to achieve the cloud goals you set. Synoptek will work with you to map out a strategy that is achievable, accurately gauges your current capabilities, and sets goals that can be met with your available resources.

To get there, this cloud readiness assessment considers your business models and company ambitions. It then assigns a Synoptek Data Collection Software Agent (DCSA) and SaaS engine for analysis and reporting to determine your IT maturity and capacity to right-size for the Microsoft Azure cloud.

Based on this assessment, Synoptek's cloud professionals determine the optimal cloud configuration and recommend different price plans available for your Azure hosted cloud service.

PLAN

Many of the most significant problems caused by the cloud skills gap take root in the planning phase, when cloud expertise is often lacking, even though it's essential to enable the informed decision-making that has long-term impact. Synoptek fills that skills gap here.

The planning phase provides a complete visual of your entire existing IT infrastructure. It includes application discovery, application dependency visualization, cloud readiness suitability analysis, cloud infrastructure design and a cloud migration roadmap builder.

By automating application discovery across physical, virtual and cloud environments and assessing dependencies and cloud suitability for each, you can prioritize applications for migration and efficiently build a roadmap to the Azure cloud, reducing migration planning cycles by up to 70%.

REVIEW

In the review phase, Synoptek once again becomes your bridge over the cloud skills gap. A Synoptek Cloud Expert will help you get cloud clarity by providing and analyzing data that helps you better understand how to optimize all your Azure cloud instances. During that time, you will receive feedback on the best Azure service for your targeted workload. Synoptek will also identify applications that may require re-architecting before moving them to a public cloud.

This phased approach to cloud assessment, planning and review will enable you to precisely



The DCSA measures your existing physical and virtual environments to better understand your current application workloads and their performance profiles. The assessment includes:

- System/workload discovery
- Capacity allocation right-sizing
- Total-cost-of-ownership projection
- Multi-cloud cost comparison and pricing plan optimization

project cloud total cost of ownership (TCO), efficiently design and accelerate your cloud migration and maximize your application performance in the cloud. In addition, at every step, Synoptek will clarify the security and compliance obligations in your developing cloud environment, so you're prepared to meet them.

MANAGED MICROSOFT AZURE CLOUD SERVICE

Next, to fully maximize the power of your Microsoft Azure environment, you need to leverage an end-to-end cloud management service that specifically enables you to take full advantage of Azure's capabilities and benefits. The Managed Microsoft Azure Cloud Service provides a comprehensive cloud adoption framework and robust set of services to assess, migrate and optimize your existing Azure cloud environment. Synoptek is dedicated to total cost transparency and 24x7 support to help with cloud management or troubleshooting. Synoptek also can deliver a complete enterprise cloud solution out-of-the-box, layered with additional security, compliance and disaster recovery on top of Azure cloud technology.

“ Synoptek's Managed Microsoft Azure Cloud Service is designed to be flexible and customized. ”

This service is delivered via a multi-pronged approach designed specifically to help you overcome the common challenges that can hamper or cripple your cloud plans. Achieving cloud cost savings is an ongoing process that involves continuous evaluation of your Azure cloud environment. Synoptek constantly analyzes cloud performance and usage patterns to accurately project your capacity needs and identify best-fit cloud configurations. This analysis also includes identifying and eliminating waste in unused or idle infrastructure resources (compute and storage),

or scheduling workloads that could reduce your unnecessary costs by as much as 46%.

The service is flexible and customizable, and built to address enterprise challenges with cloud performance, management, security and cost control.

Let's take a deeper look at the service's capabilities:



RISK MITIGATION

Synoptek's 24 x 7 proactive monitoring tracks network and application performance, platform activity and trends in utilization. When issues arise, Synoptek swiftly performs the necessary remediation to prevent application downtime.

Services include:

- Ensuring that systems maintain current backups and restore capabilities
- Routing your staff inquiries to the North America-based Synoptek team most familiar with your systems, for troubleshooting, guidance and resolution
- 24 x 7 access to a regional team that understands your business and IT history



STRATEGIC GUIDANCE

Cloud technologies are changing rapidly and continuously provide opportunities for innovation and efficiency. Synoptek advisors will help lead your organization's digital transformation with services including:

- Assigning a dedicated advisor who understands your business, optimizes your strategy and provides ongoing guidance

IV. Synoptek Managed Cloud Services for Microsoft Azure

- Analyzing your organization’s performance gaps, risks and inefficiencies and providing recommendations to guide improvement strategies
- Delivering a technology roadmap to ensure accountability and drive IT strategy for your business



COST OPTIMIZATION

Synoptek regularly performs cloud right-sizing analysis and resource management to enable data-driven decision-making about cost optimization. The service includes:

- 400+ continuous checks to identify idle and underutilized resources, unused reserved resources, and more
- Advanced alerting and cloud governance, in which Synoptek experts offer recommendations on cloud right-sizing and resource management, to optimize performance and ultimately save money



CYBER DEFENSE

Synoptek closely watches your Azure cloud system activity and investigates anomalous behaviors. An assigned virtual chief information security officer (CISO) oversees all security activity, provides periodic reports and regularly meets with your team. Other services include:

- Advanced malware protection and regular patching of subscribed devices to quickly mitigate security vulnerabilities.

- Automatic protection of your workloads against security vulnerabilities and ransomware attacks and shielding your applications and servers with a “virtual patch” until a workload can be patched by Synoptek.
- File integrity monitoring which detects suspicious behavior by tracking critical operating system and application files, such as directories and registry keys and values.
- Management of a server-patching process that applies all vendor-provided OS security updates.
- Application of all vendor-released critical patches, and notification to customers of intentions to perform emergency patching as far in advance as possible.



COMPLIANCE MANAGEMENT

Synoptek regularly scans your cloud workload against hundreds of critical Microsoft Azure best-practice checks rooted in compliance regulations, public cloud recommendations and the advice of Synoptek’s in-house Azure experts. Other services include:

- Security and the necessary remediation steps to help fulfill PCI, HIPAA, FISMA, and other compliance requirements.

V. The Benefits of a Well-Managed Azure Cloud

In sum, Synoptek's Managed Microsoft Azure Cloud Service is the missing link between the enterprise and the promise of the cloud. It gives you the Synoptek Edge™, enabling you to capitalize on the expertise and resources at Synoptek and Microsoft, so you can focus on your core business and advance your organizational goals through the following cloud benefits:

FASTER TIME TO MARKET

Azure delivers incredible application migration flexibility, speed and scale. The Synoptek solution offers the expertise you need to optimize Azure cloud solutions and cut down application development delays, enhance collaboration, and maximize computing and storage capabilities.

MORE COST SAVINGS

Azure enables dramatic cost savings. Synoptek's managed Azure cloud service's continuous, automated monitoring of your Azure resource usage quickly spotlights areas of inefficiency or waste, so you can consume your Azure cloud services as efficiently and cost-effectively as possible.

BETTER PERFORMANCE

Azure powers superior application performance. Synoptek's experts assess your cloud applications and workloads on an ongoing basis to help you dedicate the proper amount of resources to each one.

SUPERIOR SECURITY

Azure delivers compliance and robust data security on its cloud platform. Synoptek's comprehensive system monitoring for viruses and non-compliance is backed by instant alerts and quick remediation, so your Azure cloud environment is protected, high-functioning and reliable.

TRANSFORMATION

Azure drives IT transformation. The Synoptek Managed Microsoft Azure Cloud Service gives you the cloud technology roadmap you need, identifying your organization's performance gaps, redundancies, inefficiencies and unintended IT silos to help you accelerate your business's IT transformation.



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