Red River

THE COMPLETE GUIDE TO
AZURE MANAGED SERVICES

Microsoft Azure is one of the most powerful cloud platforms in the world today. It's used by thousands of businesses in every corner of the globe, in countless different industries. It's powerful and versatile, and empowers businesses to thrive and grow free of on-premise constraints.

In this ebook, we'll look not just at the many benefits of Microsoft Azure for businesses of every size, but more importantly, why Azure is best paired with a managed services provider (MSP). Azure managed services are the perfect way for you and your business to get the most out of your Azure deployment.

THE BENEFITS OF MICROSOFT AZURE

If your business isn't already considering Microsoft's Azure cloud solutions, it should be. Azure's cloud solutions are extremely robust, offering a reduced cost of infrastructure, scalable platform and secure data centers. If your organization uses Microsoft technology — from operating systems to Office 365 — a switch to Microsoft Azure can help. With Azure, you can:

REDUCE YOUR COST OF INFRASTRUCTURE

With Microsoft Azure, you don't need to maintain climate-controlled rooms or other on-premise solutions. You can vastly reduce the cost of your infrastructure by reducing the amount of office space you need to maintain. In fact, with the decentralized and secured network provided through Microsoft Azure, you can even consider downsizing your brick-and-mortar locations and outsourcing to employees who work from home.

Companies with on-premise solutions are often trapped in a cycle of having to repair, upgrade and maintain those on-premise solutions. As systems break down, they become more expensive. And companies that don't invest into upgrading their solutions are going to be handicapped by outdated technology. They will find their employees struggling to use sluggish, unpredictable systems.

Cloud-based infrastructure is more affordable for a variety of reasons. Not only does it reduce the cost of physical infrastructure, but it boosts productivity and thereby improves an organization's ultimate bottom line.

CREATE A SCALABLE SOLUTION

Microsoft's Azure solution isn't just scalable; it's elastic. What does that mean? It can scale up as needed and then scale down swiftly thereafter; you only pay for the resources that you actually need. If you suddenly have increased need for your system, you can deploy additional resources. But you won't have to pay for those resources forever.

With an on-premise system, if you need additional resources, you will either need to permanently upgrade your system or your system will fail. This isn't a cost-effective way to deal with scalability, and it means that you may find yourself continuously upgrading your systems if your organization is scaling more aggressively.

It's always important to transition to new systems with the future in mind. If your organization does plan to grow or scale, it needs a solution that can be grown to suit it.

IMPROVE YOUR SECURITY

Security is a major cause for concern today, with many companies being vulnerable to data breach and attack. You don't want to be the target of a cybercriminal: Data security breaches can cost a company millions of dollars, and can lead to companies shutting down entirely. Microsoft Azure runs extremely secure data centers, protected both from cybercriminals and natural disasters.

How much money does your company lose for every hour that it's down? You can avoid this downtime through more reliable, secured server solutions. An organization can't easily protect itself from things like fire and flood, but Microsoft Azure can. Through redundant data, virtualization and backup solutions, Microsoft Azure will ensure that your data is never lost, whether you experience a data breach attack or a localized fire.

USE YOUR SYSTEM FROM ANYWHERE

Microsoft Azure is one of the largest cloud solutions today, and it provides a cloud platform that is accessible from anywhere. Not only can your workers travel or telecommute and still work well, it's easier for a global enterprise to be all on one page. You'll be able to leverage the global community to find workers that can work from anywhere, and you can procure the best talent by providing work from home and flex time as a perk.

Companies are now going global. Many businesses have employees that are all over the world. Even companies that have in-office employees frequently find their employees working with each other from city to city or country to country. If you need your employees to be able to work more effectively with each other across geographic locations, Microsoft Azure can help.

HOW A MANAGED SERVICES PROVIDER CAN BOOST YOUR AZURE DEPLOYMENT

If you're about to deploy Azure (or are currently managing and maintaining your own Azure deployment), consider the benefits of using a managed services provider. An MSP can augment and improve upon any Azure deployment, from initial architecture to continued support. Here are a few of the most important ways in which an MSP can help with your Azure deployment.

IMPROVING UPON YOUR AZURE COST MANAGEMENT

Azure costs are highly variable depending on what services and resources are used. Cloud managed services can help you modify and manage your Azure cost management, by advising you on what services are best for you. You can reduce your Azure overhead, and put your money towards other tech solutions. Cloud services may be able to pay for themselves solely in Azure management savings.

In addition to improving upon Azure cost management itself, an Azure managed cloud service can save the organization money in multiple ways:

- **Reducing technical support costs.** With a cloud service, organizations don't need to pay for expensive, internal Azure experts, or have to rely upon external solutions. Instead, they will be able to pay for only the support they need through their Azure managed services provider.

- **Mitigating security risks.** Security risks can cost organizations tens of thousands or even millions of dollars. An Azure deployment will be secured through a cloud managed service, to mitigate security risks as quickly as possible.

- **Facilitating productivity.** The greater a company's productivity, the lower its overhead and the greater its ultimate revenue. By powering up your Azure deployment, a cloud managed service will be able to improve upon the amount of work that your organization will be able to do, and will consequently reduce your organization's expenses.

Through these cost management solutions, the Azure cloud managed service will be able to save the organization money and even pay for its own services.

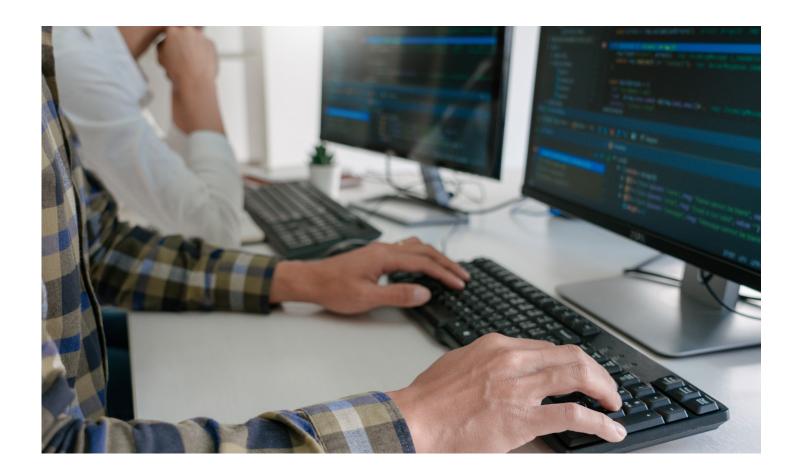## DECIDING BETWEEN ON-PREMISE AND CLOUD SOLUTIONS

On-premise, cloud and hybrid solutions vary both in capabilities and demands. Cloud managed solutions can help an organization determine whether they want on-premise, cloud or hybrid solutions, and how to best achieve the infrastructure that they need. Before setting up an Azure deployment, it's important to determine which type of deployment your organization needs.

CHOOSING THE RIGHT AZURE ARCHITECTURE MODEL

Should you have an N-Tier, Web-Queue-Worker, Microservices, Event-Driven or Big Data, Big Compute architecture? There are five main Azure architecture models, each of which will radically change how Azure will work for you.

- **N-Tier.** A client-server architecture in which different functions are separated, N-Tier solutions (also known as multilayer solutions) are complex and require expert management. In N-Tier models, application processing and data processing are separated.

- **Web-Queue-Worker.** A web-queue-worker architecture has an application front-end and back-end, which operates by communicating through a worker within a message queue. Web-queue-worker is one of the simplest-to-deploy architectures, but may falter if the organization has more complex applications and additional demands. WQW architecture can automatically scale.

- **Microservices.** A microservices architecture separates each individual service, which can then be managed by individual teams. Microservices architectures are more complex than N-Tier solutions, and will need to be carefully managed and maintained. Still, they can be extremely effective and scalable, as each solution runs independently from the others.

- **Event-Driven.** A simple model mostly for data processing, Event-Driven architecture is a publish-subscribe model. Messaging protocols and processes are critical for the Event-Driven system, which doesn't work for more complicated models.

- **Big Data, Big Compute.** This architecture model is a little broader than the others, with the defining factor being that it deals with large volumes of data and computational processing. For those who need to analyze and collect large volumes of data, the Big Data, Big Compute model may be preferred.

Each of these Azure architecture models follow different best practices, and it's important for an expert to determine which architecture is best.

FUTURE-PROOFING YOUR SYSTEM

An MSP will help you future-proof your Azure deployment. MSPs are able to dig into your organization's current and future needs to find the solutions that will work best for your business both today and tomorrow. As your business requires additional features and resources, your MSP will be able to investigate new solutions and update your system accordingly.

ACCESSING SPECIALIZED RESOURCES

When you engage with an MSP, you gain immediate access to a pool of experienced specialists. Rather than having to rely upon the expertise of your own internal IT department, you can connect with your MSP's team whenever you encounter issues or have questions. An MSP gives you access to expert professionals that might be otherwise not cost-effective enough for a business to directly and permanently employ. And that means that you have the information that your business needs to properly manage and maintain your Azure deployment.

These are some of the many critical ways in which an MSP can enhance your Azure deployment. But there's one more key benefit of working with Azure managed services: Adopting and migrating to an Azure infrastructure is much safer and much simpler.

ACHIEVING A NEAR ZERO-DOWNTIME AZURE MIGRATION WITH AN MSP

A managed service provider can make the process of transitioning to and managing your Azure deployment easier and more reliable. Here's the four-stage process for how Azure managed services like Red River can help you achieve an Azure migration with virtually no downtime.

FIRST: ASSESS THE ON-PREMISE ENVIRONMENT

At this stage, we will analyze the on-premise environment as it currently exists, and determine what the organization is going to need from its Azure deployment. By identifying the current computing and storage options, and the total cost of ownership, we can then determine the appropriate cloud settings and costs for the Azure platform.

During our assessment process, we will consider the organization's current and future needs. One of the major advantages to a cloud deployment is that the cloud deployment can be scaled easily in the future. We will create a future-proofed plan that won't just keep your company stable today, but will also grow your business tomorrow. That includes considering things like your resources, licenses and integration.

SECOND: DEVELOP A COMPREHENSIVE MIGRATION PLAN

At this stage, we will map dependencies to ensure that everything will be migrated. One of the major concerns with a transition is that you could break a dependency within your system. You might not port over all the data that needs to be ported over, or you might not have retained the connections between different solutions.

The best way to reduce risk is to think about what could go wrong. We will examine "what if" scenarios, plan backup/disaster-recovery strategies and run a proof of concept test migration. We will then modify our plans accordingly.

This is one of the major benefits of using an MSP. As an MSP, we have seen numerous transitions to Azure or other services. We know what can go wrong, so we can protect against it. In the IT industry, it's often a case of "you don't know what you don't know." You don't always know what could go wrong, and that increases potential risk.

THIRD: USE AZURE SITE RECOVERY TO MIGRATE

One we have a plan in place, we can begin the migration. We use tools such as Azure Site Recovery to migrate from VMware, Hyper-V or physical servers. With the proper assessment and planning, this is usually the easiest part of the process.

Many companies are concerned about the actual migration because they are worried about downtime. But if the Azure transition doesn't include anything unexpected, it should be a fast, simple process. By planning ahead and analyzing the environment, we are able to sidestep the issues that could lead to lengthy downtime.

Before this migration has actually been committed to, internal training should be completed. This will ease the transition within the company's processes and culture. As the company moves forward with its Azure deployment, training will need to continue. Employees will need to have someone to connect with if they encounter issues or have questions. This is another role that an MSP can fulfill.

FOURTH: MANAGE THE AZURE DEPLOYMENT

The job isn't over once the services have been deployed. A significant part of Azure managed services lies in managing the deployment once the transition has occurred. We will provide support, governance, data protection management, security management, patch management, monitoring and more.

Many companies don't have the internal resources to manage a cloud-based deployment. They may not currently have the existing staff members to manage a cloud service, or they may already be in the midst of other projects.

An MSP can step in and ensure that your Azure migration strategy works, in addition to managing and maintaining your Azure deployment moving forward. This frees up your internal IT department to focus on other things.

By outsourcing the majority of your IT infrastructure, you leave your own company free to focus on innovation and revenue-generating tasks. And, of course, Azure itself will improve efficiency and productivity.

KEY TAKEAWAYS

Even this comprehensive ebook has only scratched the surface of how a managed services provider can help your business get the most out of Microsoft Azure. From a smooth deployment and migration to added security, cost management and more, it should be clear by now that a good MSP must be part of any Azure infrastructure.

If you're interested in learning more about how an MSP can help take your business to the next level through Microsoft Azure, contact Red River's experts today.

ABOUT RED RIVER

Red River brings together the ideal combination of talent, partners and products to disrupt the status quo in technology and drive success for business and government in ways previously unattainable. Red River serves organizations well beyond traditional technology integration, bringing 25 years of experience and mission-critical expertise in security, networking, analytics, collaboration, mobility and cloud solutions. To learn more, visit redriver.com.