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Into the Blue

How to Succeed in Your Path to the
Cloud with Microsoft Azure

In partnership with

Microsoft Azure

Introduction

In the mid-2000s, Microsoft began work on Project Red Dog, its foray into public cloud services.

Renamed Azure for launch, the service quickly became one of the big three in the cloud computing space.

In this whitepaper, we're taking an extensive look at how companies can accelerate and find success in their transition to the cloud by partnering with Microsoft Azure.

Within these pages you will find information on:

- Planning your trip to the cloud
- Making your trip to the cloud
- Tech stacks that play well with Azure

Ready? Let's dig in ...

Strategy: Planning your trip to the cloud

Like a family vacation, migrating to the cloud takes extensive planning ahead of time. Schedules have to be made, resources need to be allocated, travel dates need to be nailed down.

For every migration to Microsoft Azure or other public cloud, the natural starting point is an assessment of your capabilities and needs—a deep dive into understanding what applications are currently running in your datacenter and the expected effort of moving to the cloud.

This assessment will help you understand whether the cloud can help you optimize utilization.

In on-premises environments, it's not uncommon for companies to have over-built servers when it comes to CPU and memory. Since the capex investment has already been made, this excessive capacity generally goes unused.

In a public cloud like Azure, however, the model shifts to one that is based on how much of it you use. So if your company is currently only using 20% of its allocated CPU and 40% of its memory, making a blanket migration to the cloud without optimizing for the capacity you actually use is a recipe for wasted resources.

Beyond optimization, another critical step in the beginning stage is plotting out a cloud adoption path of least disruption.

This entails identifying things like whether it makes sense to utilize an IaaS platform, meaning the company owns the operating system on up, or whether they would be better served by some of the many services already built into Azure.

Once these steps—assessment, then optimization, then adoption path—are completed, a company is on solid footing when it comes to making the migration happen.

Migration: Making your trip to the cloud

With the best cloud adoption plan in place based on your workload, it's time to kick things into gear. This means building out your necessary infrastructure.

Networking

Running connections and testing to make sure all your hardware and components are talking to each other.

Storage

Allocating enough capacity to meet your current and future needs without overbuilding from the jump.

Security & Compliance

Ensuring all the proper safeguards, backups, and requirements are in place to keep your applications secure and data protected.

In many ways, these steps are the nuts and bolts of cloud adoption. It's also an opportunity to accelerate your adoption process by leveraging the expertise of a knowledgeable team like Redapt and all the tools available within the Azure platform.

Cloud networking is a different beast compared to networking on-premises.

Server isolation, access control listings, security parameters around various subnets—navigating the unique designs of the cloud can be a lengthy process without the proper help.

Within Azure, for example, there are a number of useful capabilities such as security tools at the perimeter that take advantage of global visibility into attack factors. Putting these built-in tools to use can save a substantial amount of time and resources.

There are three general approaches you can take to migrate your current workloads to the cloud:

1. Lift & Shift
Lifting a workload out of the on-premises datacenter and moving it into Azure, where it's basically used as it was before, with the company continuing to manage everything.

2. Refactoring
Expand your development capabilities by embracing tools like microservices, containers, and Kubernetes to allow for rapid iteration and multiple deployments throughout the day.

3. Rebuild
Critical applications are broken down from their on-premises, monolithic state and rewritten to be cloud-native and dynamic.

Regardless of what shape the migration plan finally takes, the goal is to move an initial application or workload to Azure and test its effectiveness and compatibility.

Then you can begin innovating on that application or workload as you expand your presence in the cloud and manage more dynamic workloads.

Cost Monitoring & Management Tools

Migration is also where you can deploy cost monitoring and management tools in order to tag assets within Azure to understand the exact cost of each individual asset. That way, systems can be put into place for things like distributed billing, back billings, or charge-back models.

With a sound infrastructure and best practices in place, you'll be able to really dig into all the benefits a public cloud like Azure provides. They also have the foundation for continuing outside partnerships, such as IT as a service and overall managed services.

Tech stacks that play well with Azure

There are certain technologies we find ourselves recommending again and again because of the way they integrate with Azure. Some were built by third parties, others built into Azure itself—all of them can provide real value to a company in the cloud.

Here are three of them:

Azure Site Recovery
Microsoft's own disaster recovery as a service (DRaaS). Because it's built into Azure, it excels at assisting in data migrations by providing real-time replication of data, failover, and recovery processes.
Learn more about Azure Site Recovery.
https://azure.microsoft.com/en-us/services/site-recovery/

Movere
Recently purchased by Microsoft, Movere is a discovery solution capable of handling every aspect of your datacenter and cloud assessment needs. With Movere, you can understand what is going on in each environment and assign costs for moving applications and data to the cloud.
Learn more about Movere.
https://www.movere.io/

Rapid7
The Rapid7 insight cloud provides a robust arsenal of security strategies, from vulnerability scanning to penetration testing to ensure your perimeter is secure once everything is in the cloud.
Learn more about Rapid7.
https://www.rapid7.com/

It's important to remember that each of these stacks adds a different level of complexity—with associated cost—to the Azure platform. We recommend working with a partner to assess which ones are necessary.

In fact, we'd love to work with you.

Conclusion

While this whitepaper centered around Microsoft Azure, most of its information can be applied to most cloud platforms.

As we've highlighted, the key to a successful adoption of the cloud is:

- A thorough assessment of current capabilities and needs, including workloads and on-premises datacenter.

- Optimization to best leverage the cloud and save resources.

- Adoption and migration plans to make the transition to the cloud with little disruption as possible.

- An understanding of the various tools available through cloud platforms like Azure and how you can potentially benefit from them.

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Is your company interested in migrating to Microsoft Azure or any other cloud provider?

Contact us today at redapt.com/contact