**Azure Migrate Planning Guide**

**Phase 1: Assess**

**Create a Migration Plan**

Before beginning a migration, or even moving too far along in the planning process, business leaders must work to get all crucial team members are on board. Create a detailed plan of what you hope to achieve your migration, with particular emphasis on the organizational outcomes that wait on the other side. The planning phase is also a great time to evaluate the skillset of your organization, begin training and preparation for Azure, or bring in the help of a trusted cloud partner who can train, consult, and guide you every step of the way.

**Evaluate Costs**

Next, it's time to evaluate the cost of migration. Calculating the Total Cost of Ownership (TCO) of your existing system will help you establish a baseline for comparison with your projected costs in the cloud. The Microsoft TCO Calculator is a valuable tool designed to evaluate your projected Azure TCO based on your on-prem server infrastructure, databases, storage, and bandwidth.

**Discover and Evaluate Apps**

Many technology leaders make the mistake of assuming a cloud migration should be done all at once. On the contrary, a personalized cloud migration strategy should be just that—personalized to the needs and best interests of your organizations.

**Assessment**

Perhaps you have some cloud-ready applications, while others will take more time and resources. Or, you may have apps that are more business-critical than others. To better understand which applications are ready for the cloud, a thorough inventory must first be taken.

Microsoft cloud migration assessment tools are designed to help you map out your current applications and take a comprehensive inventory of existing server infrastructure. Azure Migrate is just one of the tools available to assist in the discovery and analysis of your different VMs and app environments and identify their readiness for the cloud. Careful analysis and ranking of each asset will lay the groundwork for your migration strategy, and ultimately help your Azure migration kick off smoothly and effectively.

**Phase 2: Migrate**

**Rehosting** (also referred to as "Lift and Shift") - Involves migrating applications as-is into the cloud. Rehosting allows for quick progress without the need for significant code changes and helps you kick off your migration right away.

**Refactoring** – This option involves making modifications to your existing applications to maximize efficiency and make them compatible with Microsoft products in the cloud. While this is not changing the entire integrity of your application, it should modernize the app enough to help you take advantage of Azure IaaS and PaaS products.

**Rearchitecting** – Rearchitecting takes your application one step further by changing the application code base altogether in preparation for the cloud. With fundamental code changes in place, your app will be ready for the latest Azure products and modifications, while still maximizing any value gained from your original application itself.

**Rebuild** – If your applications aren't ready for the cloud, you may choose to rebuild instead. In this strategy, organizations can eliminate applications that are too old or outdated to function in the cloud and begin from scratch with cloud-native products.

Depending on your analysis of your existing applications, you may choose to use one of these strategies, or a combination of several to meet your business. Remember, every organization is unique, so there isn't 1 standard approach to cloud adoption.

**Get to Know Your Migration Tools**

To help make your migration run smoothly, Microsoft Azure has countless tools to help automate your processes and assist in a smooth migration every step of the way.

**Azure Migrate** – Azure Migrate is your one-stop-shop for tracking, assessing, and executing all phases of your Azure migration. Designed to help manage the bulk of work that must be done on the front end. Great for estimating costs, and offering an understanding of where you might run into trouble, and remains your central hub along the way.

**Data Migration Assistant** – Analyzes your on-prem SQL servers to check for compatibility before migrating to Azure. It helps easily identify where incompatibilities are taking place, to quickly pinpoint errors, and make necessary adjustments for efficient data migration.

**Azure Database Migration Service** – Simple, self-guided step by step tool to aid in your migration. Useful for those with less experience.

**Data Box** – Assists in the migration of your data, whether on or offline. Great for scenarios where you're limited in on time or network availability while maintaining heightened security.

**Step 3: Optimize**

Microsoft Azure recommends the third step to their cloud transformation journey, centered all-around optimization. It is in this step that organizations can begin to fine-tune their cloud experience to ensure they're making the most of all Azure has to offer. Optimizing your cloud experience can be done in a few different ways:

**Financial Tracking –** Keeping a close eye on costs with the Azure Cost Management tool can help to identify where you can beef up or cut back on your cloud usage. While the beauty of the cloud is that you'll never pay for services you don't need, clear transparency allows you to see where your budget is being allocated and help prepare financially for any next steps in your cloud journey.

**Step 4: Secure and Manage**

To make this step seamless for IT leaders, Microsoft has additional products to assist in the security, backup, and full-time monitoring of your cloud applications to keep your business running and maximum capacity.

**Azure Security Center** – The Azure Security center offers a full-time view into the security of your cloud through a simple dashboard, helping you quickly identify security breaches caused by rapidly changing workloads and even the most advanced attack methods.

**Azure Backup –** fully back up your application data in the cloud to prevent costly outages, downtime, or security breaches.

**Azure Monitor** – keep a close eye on the usage, health, and activity across your various applications and VMs. Detect dependencies in your applications, streamlined approach to monitoring your entire cloud infrastructure.

**On-Prem to Azure: Special Considerations**

**Check Your Compliance** – Keep in mind, just because your cloud provider is compliant, doesn't mean your organization is. While Microsoft Azure has a wide range of compliance certifications across the globe, there is still a responsibility on the part of the organization to maintain legal compliance as well. Before you begin your cloud venture, ensure that your organization has met any necessary standards for your unique industry so you can jump into the cloud with ease.