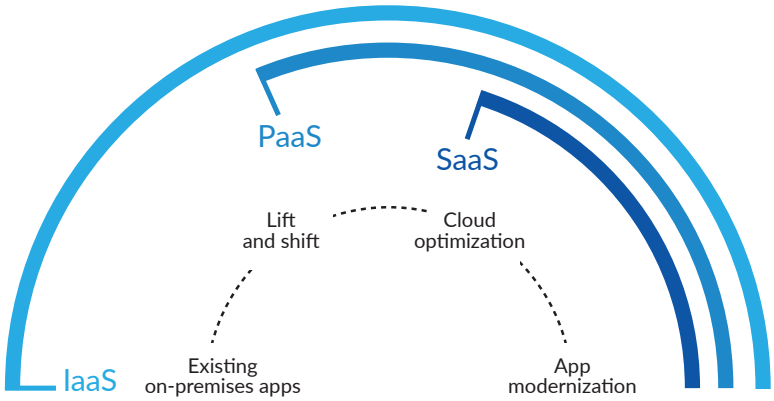
SYNCHROWORKS CONSULTING

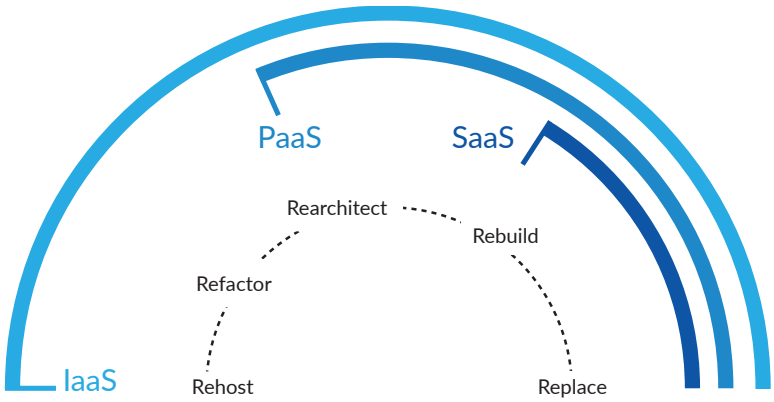
SECTION 3

How Do You Approach Cloud Migration?

Sometimes cloud migration can be simple, with only a few decision points. However, your case may be more complex, depending on how many servers and virtual machines you use. Your migration could require you to run parallel and iterative migration processes as you progressively move your applications and workloads to the cloud.

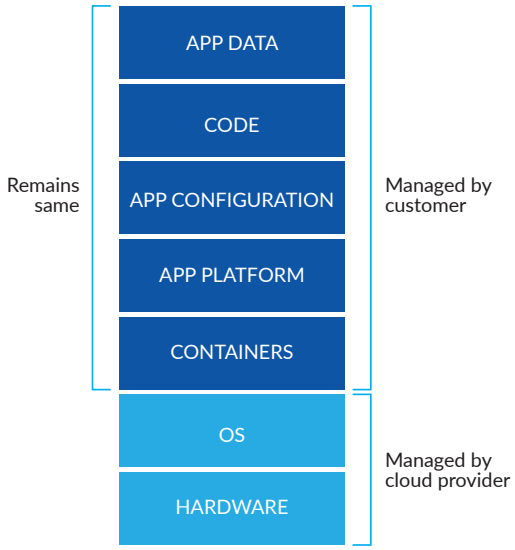
Whether your migration is simple or complex, it's helpful to think of the basic elements of the process. Migration can be boiled down to three main phases, as illustrated in the model below.





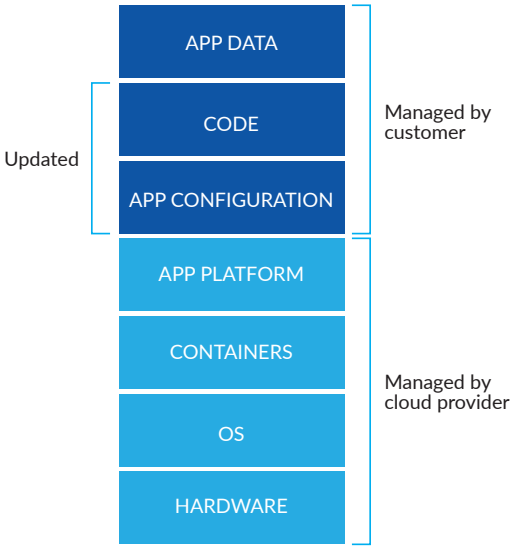
Rehost. Also referred to as "lift and shift," this stage entails migrating your physical servers and virtual machines as-is to the cloud. By simply shifting your current server environment straight to IaaS, you reap the benefits of cost savings, security, and increased reliability.

In the new rehosted cloud model, hardware and operating systems you previously managed yourself are now managed by the cloud provider. All other aspects of the workload or application remain the same. This is the most popular migration approach, as it lets organizations move quickly, with little risk or impact, and receive immediate benefits. It also allows customers to see lower total cost of ownership (TCO) faster, enabling investment back into the migration process to evolve through the model. Rehost. Also referred to as "lift and shift," this stage entails migrating your physical servers and virtual machines as-is to the cloud. By simply shifting your current server environment straight to IaaS, you reap the benefits of cost savings, security, and increased reliability.

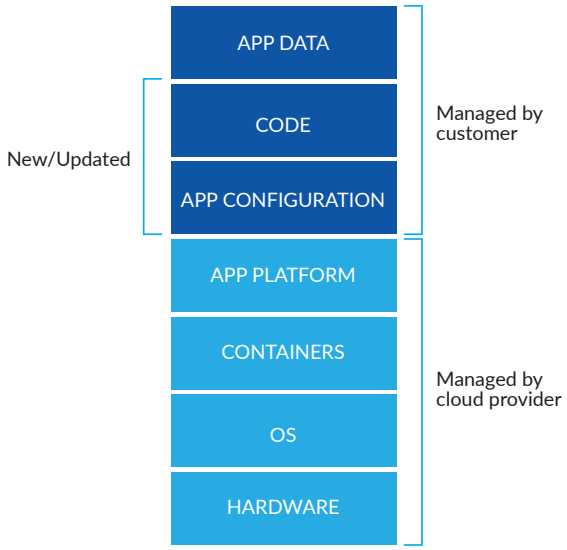


Refactor. Also known as "repackage," this stage involves using additional cloud provider services to optimize the cost, reliability, and performance by refactoring your applications. In lift and shift, you were only taking advantage of the provider-managed hardware and OS, but in this model, you also take advantage of cloud services to drive down cost.

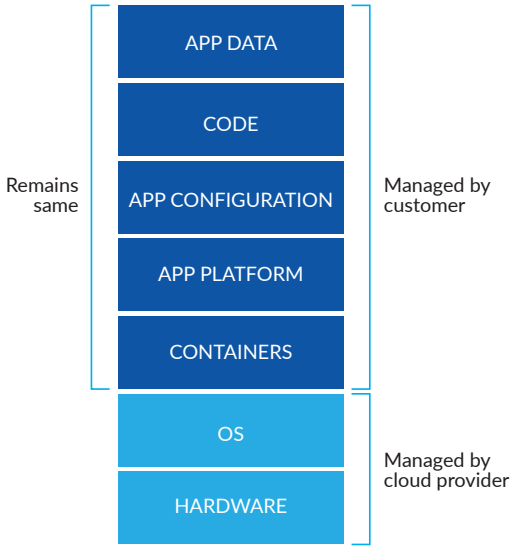
You continue to utilize your current application as-is, with some minor application code or configuration changes, and connect your application to new infrastructure services such as containers, databases, and identity management systems. By employing modernized services in this scenario, you can lower cost and management.



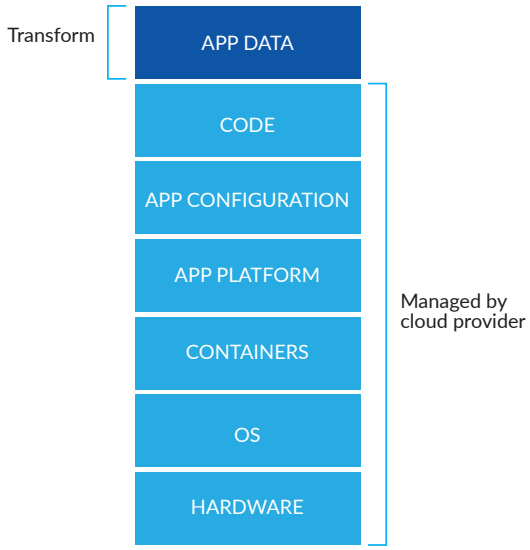
Rearchitect. This is also known as "redesigning" an application to modernize it—that is, to transform it with a modular architecture. Rearchitecting is modifying or extending an existing application's code base to optimize it for a cloud platform and for better scalability. Cloud provider services can be used directly as backend services of modern apps, which are highly scalable and reliable. This is likely the most time-consuming way to migrate an app to the cloud because it requires app code changes. One example of rearchitecting would be decomposing a monolithic application into microservices that work together and readily scale on Azure. Another example would be rearchitecting a SQL Server database to make it a fully managed Azure SQL Database.



Rebuild. Revise the existing application by aggressively adopting PaaS or even software as a service (SaaS) services and architecture. The process encompasses major revisions to add new functionality or to rearchitect the application for the cloud. An example of this stage would be code redesign to decompose the original application into smaller chunks, and then deploy using modern cloud provider services.



Replace. This refers to moving or discarding an existing application and replacing it with commercial software delivered as a service, or SaaS. SaaS provides a complete software solution that you purchase on a pay-as-you-go basis from a cloud service provider. When you choose this option, all underlying infrastructure, middleware, app software, and app data are managed by service providers and located in their datacenters. The service provider manages the hardware and software and, with the appropriate service agreement, will ensure the availability and security of the app—and your data as well. SaaS allows your organization to get quickly up and running with an app at minimal upfront cost. Typically, you migrate existing data to the SaaS environment. Application data import/export is achieved with an API or configuration/admin console.



Lift and shift is the most common (and the easiest) first step, enabling you to move quickly to the cloud. Through process discovery efforts, you can easily map the next best steps for each workload based on goals, effort, and complexity. An advantage of this approach is that it enables you to sustain parallel migration efforts. And, as your IaaS projects continue, you can easily start modernizing certain applications to PaaS and even SaaS options.

While the migration evolution model shows a potential step-by-step journey for moving workloads from on-premises to the cloud, the model also suggests that workloads could start at different pivot points. Where you begin depends upon the complexity of the workload and, ultimately, what you want out of it.

No matter which option you choose, you need a solution that provides a smooth and easy cloud adoption, so you can migrate at your own pace. This requires a cloud provider (and core partners) who can deliver a comprehensive set of tools, methods, and offers for helping with migration and reducing risks. Most of all, this solution should offer a simple process that's easy to follow.

With this cloud migration approach in mind, Synchroworks Consulting recommends a simple three-step migration process for moving to the cloud:

ASSESS

Identify and inventory your on-premises resources, such as applications and workloads, to plan where your Azure migration should start.

MIGRATE

Migrate smarter and faster with flexible, powerful tools, while ensuring minimal business impact.

OPTIMIZE

Fine-tune your resources to strengthen security, improve performance, and maximize return on investment (ROI).

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