US SIGNAL®

cloud migration to-do list

There's typically a lot riding on migration initiatives. Expectations are high. The need to see immediate, positive results is as well. Proper planning is critical to avoid missteps and the inevitable "why-didn't-we-think-of-this" issues.

While each migration project is unique, the following checklist will provide a good starting point for planning your migration project.

1. Set goals, objectives, and success factors.

If you've already made a business case for the migration, this information is already available. If not, it will help build your business case.

2. Determine if you'll go solo or with an expert.

If you've done a migration, check back on "lessons learned" from the previous one and get your plan and resources in place. If you're a first-timer and/or are short on resources or are facing a complex move, enlist a cloud services providers (CSP) or a third-party consultant.

3. Inventory and audit your applications / workloads.

Assess their criticality to the organization and their performance levels/needs. Determine any security, compliance, architecture or other requirements. Note end-of-life/end-of-service status. Map dependencies.

4. Identify which applications / workloads can and should move.

Pick the migration strategy. The six most common migration strategies, also known as the 6 R's, are:

Rehost - Lifting from on-premise and shifting to the cloud without re-architecting.

Replatform - Taking advantage of some cloud optimizations without fully re-architecting.

Repurchase - Purchasing a SaaS application to replace the on-premise application.

Refactor - Re-architecting an application to improve performance, agility, and business continuity.

Retire - Removing applications that have a low business value or a business criticality.

Retain - Keeping applications on-premise with no change.

5. Determine the appropriate cloud model(s): public, private, or hybrid.

Ensure the new environment(s) will have adequate bandwidth for optimal application performance.

IaaS	PaaS	SaaS	Serverless
CSP provides servers, network, and data storage. You maintain OS, applications, and data security.	Includes infrastructure plus services like a platform to run your apps, middleware, and database management system.	Application that is accessible over the internet. Popular for remote work.	CSP is responsible for scaling application. Pay for server capacity on-demand.

6. Architect and test the new environment(s).

A cloud architect will need to design the cloud environment(s). The design typically assembles virtualized compute, storage, and networking instances, along with services such as databases, logging/monitoring tools, security, and event-driven computing.

7. Define the migration project scope and develop your complete migration plan.

Outline responsibilities. Specify the order in which workloads will migrate. Create a schedule for each step of the migration process and include checkpoints. Establish contingency plans. Include plans for data backup and security, as well as testing.

8. Start the migration plan.

Quiesce and back up the local deployment. Migrate the application, services and related databases to the new cloud environment and synchronize data.

9. Test and validate the completed migration.

You don't need to test every possible feature and function, but you should run a solid cross section of tests to ensure your application performs as expected. Among them: functional validation, performance and integration. Test on cellular networks and Wi-Fi networks, as different data speeds impact an application's behavior.

10. Cutover and next steps.

Open the migrated workload to some (or all) users. Implement workload monitoring, support/troubleshooting, adjustments, refinements, and other general upkeep. Before moving ahead with more workload migrations, review how the initial process went. What worked well? What could have worked better?

creating more sustainable data centers

US Signal's Michigan data centers are part of our environmentally friendly initiative, featuring the latest power-efficient technologies, including in-row cooling systems and high-density servers, that reduce power consumption and carbon emissions. The data centers also use renewable energy sources and responsibly dispose of electronic waste.

For more information on reducing the environmental impact of your data – and your IT operations – contact US!

US SIGNAL®