AWS Migration Checklist

As companies in the media and entertainment industry strive for innovation, agility, and market adaptability, migrating to Amazon Web Services (AWS) becomes a strategic imperative in this dynamic business landscape. However, embarking on the journey to AWS Cloud requires a structured and informed approach to ensure a seamless and secure migration process. This checklist, supported by insights from DataArt's extensive experience in AWS cloud migrations, outlines the critical steps and considerations for businesses preparing for this strategic move. From initial planning and preparation to post-migration optimization, each phase is designed to guide you through the main steps of AWS cloud migration.

1/4 Preparation & Planning

▶ Assess Your Current Infrastructure. Assess your current resources, servers, storage systems, databases, and network setups. Map out dependencies between different components of your infrastructure.
Evaluate your current technical experts, their Cloud technology skills, and their overall ability to learn and adapt to new concepts.

> **The key to migration success is to measure, analyze, design, and plan. Cloud readiness assessments are based on the Cloud Adoption Framework (CAF) and allow you to understand what should be changed, process-wise, to live in the Cloud successfully.**
>
> **Pavel Khrulev**
> Solutions Architect at DataArt

▶ Set Clear Goals. Evaluate your business' pain points & goals:
e.g. media asset management, monetization, or enhanced personalization.
Based on these objectives, decide which apps to move to the Cloud.
Establish key performance indicators (KPIs) to measure the success
of the migration. Use the Cloud Adoption Framework (CAF)
for a cloud readiness assessment.

▶ Conduct a Security Assessment. Identify sensitive data;
locate where it is stored and how it is used. Ensure compliance
with AWS Security Best Practices and industry regulations.

▶ Research AWS Offerings. Familiarize yourself with the different AWS
services. Engage with the team of AWS experts to choose the right services
and ensure they align with your specific needs and business objectives.
Consider DataArt's <u>AWS Application Modernization Services.</u>

2/4 Mobilization & Strategy Development

▶ Craft a Migration Portfolio. Create a portfolio of workloads earmarked
for migration. Analyze and choose an appropriate migration strategy
for each workload. Create a prioritized list of migration groups,
estimate timelines and select the ones for the first migration wave.

▶ Build a Cloud Center of Excellence (CCoE). Assemble a dedicated team
or group within your organization responsible for developing and enforcing
cloud computing best practices, guidelines, and governance policies.
This team could include:

Project Manager — responsible for planning, overseeing, and leading projects
from inception to completion, ensuring that the migration is effectively managed.

Business Analysts — conduct research and analysis to develop solutions
for business challenges, facilitating the introduction of new systems
to both your businesses and your clients.

Solution Architect — responsible for designing the cloud architecture,
which includes platforms, servers, storage, content delivery, and networks,
ensuring that the infrastructure supports your organization's requirements.

Software Developers — focus on developing and deploying solutions
on cloud platforms, translating the architectural plans into functional applications.

QA Specialists — test the software to identify bugs and errors, ensuring that
the product meets all specified requirements and maintains a high-quality standard.

> **A cloud transition should be accompanied by a well-architected review. It's important, for instance, to establish a reliability engineering team; one that can design a cloud platform for maximum system availability.**
>
> **Yuri Gubin**
> CIO at DataArt

▶ Implement a Landing Zone. Work closely with your CCoE team to establish a landing zone — a well-architected, multi-account AWS environment, offering a foundational starting point for deploying workloads and applications.

▶ Initiate Steering Meetings. Organize meetings and gather the AWS team to discuss, review and guide the migration, and ensure strategic alignment and oversight.

3/4 Implementation & Migration

▶ Collaborative Planning. Work closely with your team of AWS experts to develop a detailed and customized migration plan that aligns with your business objectives. Select a migration approach and incorporate needed tools and services.

▶ Do Well-Architected Framework Reviews. This should occur both during the migration waves and after them and will allow you to avoid mistakes and get a high-level overview of what you have done from a technical perspective. Consider <u>DataArt's Well-Architected Review</u> service, designed to align with AWS's Well-Architected Framework.

▶ Explore the Seven Cloud Migration Strategies.
There are <u>seven cloud migration strategies</u>: relocate, rehost (lift and shift), replatform, repurchase, rearchitect/refactor, retain, and retire.

Pavel Khrulev, Solutions Architect at DataArt, sheds light on each of them:

> **Relocate** — host certain workloads on-premises and transition them as they are to the cloud. This method is feasible for cloud-agnostic tasks or platforms with native cloud support.

> **Rehost** — convert on-premises virtual machines/servers to cloud-based virtual machines. This method is also known as "lift and shift."

> **Replatform** — migrate a workload to a cloud-native platform without rearchitecting systems.

> **Repurchase** — replace custom or outdated systems with <u>SaaS</u>.

Rearchitect — transform your application's architecture to embrace cloud-native principles and leverage managed cloud services, sometimes necessitating a complete rebuild.

Retire — eliminate unnecessary workloads, such as outdated log servers.

Retain — keep workloads on-premises temporarily. This method is typically part of a transitional phase in the migration process.

▶ Set Up the AWS Environment. Engage in the detailed configuration of essential networking components, meticulously setting up and optimizing your AWS environment. ☐

▶ Migrate Applications and Databases. Use tools like AWS Migration Hub to simplify your end-to-end migration and track progress. Use AWS Database Migration Service to migrate your databases with minimal downtime. ☐

▶ Validate the Migration. Ensure applications are running correctly on AWS. Perform Load Testing: Simulate traffic to test the performance and scalability of your AWS setup. Rely on proven methodologies and tools to ensure a smooth transition with minimal operational downtime. ☐

4/4 Performance Tuning & Post-Migration Optimization

▶ Utilize AWS expertise. Engage with AWS partner resources for technical assistance, best practices guidance, and troubleshooting help. ☐

▶ Performance Tuning. Set up monitoring tools to enhance security. Receive guidance on optimizing your AWS solutions for enhanced performance and reduced costs. ☐

▶ Enable Continuous Improvement. Schedule periodic reviews of your AWS environment to identify further optimization opportunities. ☐

Remember, each business environment is unique. This checklist aims to provide a high-level roadmap that you should tailor to meet the specific technical and business requirements of your organization.

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