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Softchoice AWS Cloud Migration services User Guide

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AWS Cloud Migration services

Navigating cloud migration: DIY or Softchoice expertise?

You want to migrate your IT environment to the cloud, but you're not sure what it fully entails. Should you do it yourself or call in the experts?

The challenge isn't just in executing the migration; it's also in navigating the unforeseen pitfalls that lie beyond the

reach of even the most comprehensive YouTube tutorial.

We may be biased, but Softchoice's AWS Cloud Migration services are designed to simplify migrating to an Amazon Web Services (AWS) cloud environment. With proven processes and best practices to draw from, our experts can help make your cloud migration hassle-free, ensuring minimal downtime and enhanced data security.

Let's compare a typical to-do list with the 10 foundational steps of a cloud migration.

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1 Defining goals and aligning teams

The DIY approach

Assess existing environment

- Identify infrastructure pain points, inefficiencies, or areas where the cloud could offer improvements.
- Understand the needs of the business, both immediate and long term. Consider scalability, security and/or specific business process support.

Complete a cost-benefit analysis

- Calculate total cost of ownership (TCO) for both the existing setup as well as the proposed cloud infrastructure. Remember to include costs related to migration, training and any potential downtime.
- Create a projected ROI for the business. What are your anticipated savings on infrastructure? Reduction in IT staff workload? What are the expected improvements in productivity and efficiency?

Define migration goals

- They will help you prioritize objectives, determine appropriate KPIs, inform how to structure your migration approach and the best way to gauge and measure ongoing results.
- Common goals usually have to do with scalability, improved collaboration, business continuity and/or enhanced security.

Align key stakeholders

- Identify key stakeholders for the project.
- · Schedule time with them.
- Get alignment on business objectives and KPIs.
- Adjust objectives and KPIs until alignment is reached.

With Softchoice

Key stakeholders participate in an in-depth discovery workshop. Here, we uncover your current infrastructure and applications. We then identify your goals, with a focus on operational efficiency and building a culture of change.

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2 Choosing the first application

The DIY approach

Evaluate applications

- Check compatibility, including dependencies on specific hardware, operating systems or configurations.
- Determine complexity, the program may require significant refactoring.
- Analyze the application's resource usage, including CPU, memory and data volume.
- Consider performance metrics such as latency and throughput to make sure they meet business requirements.
- Evaluate necessary data security and compliance. Including access controls, encryption and verify that the cloud provider complies with any relevant regulatory requirements ie) HIPAA, GDPR.
- Estimate downtime requirements

Select a pilot application

- Ensure pilot application does not have too many dependencies, is not too complex and/or critical to everyday operations.
- Document application dependencies in case of any impact/downtown.
- Research best practices for implementation.

With Softchoice

You provide approval on our detailed plan which includes scope, timeline and overall cost. We also offer recommendations for eligible applications for your first migration, built using best practices from a team responsible for over 500 migrations a year.

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3 Prepare your environment

The DIY approach

Choose a cloud provider

- Make sure to find a provider that aligns with your business objectives and technical needs.
- Negotiate the contract including but not limited to: SLAs (availability and uptime, support and response times), security and compliance (depending on your location there are different regulatory bodies you may need to answer to like GDPR and HIPPA), cost structure and billing, contract flexibility, data ownership, vendor lock-in risk etc.
- Confirm your migration is or is not eligible for different funding programs.

Design the network

- Make sure to configure network and security settings accordingly (can surpass 20 configurations per VM) otherwise it can lead to technical issues and vulnerabilities.
- Note: the designed network should not only meet the needs of your first application, but of your entire organization and migration.

Implement governance frameworks

- Make sure to consider: policies and standards, roles and responsibilities, reference architecture, data privacy, change control processes, and training and support.
- Implement a data backup and recovery to safeguard data during migration.

Form a migration team

• The team should have knowledge in migration processes, best practices, security and testing.

OR

With Softchoice

We define workflows, assign permissions for enhanced security and implement advanced governance models with AWS Control Tower. This allows teams to operate multi-account AWS environments with proper controls in place. You just need to approve the plans!

If you've made it this far and are still considering a DIY approach, feel free to keep reading. If you're ready for a seamless migration to AWS with Softchoice.

Click here to get started

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4 Migrating your first application

The DIY approach

Migrate first application

· Consider multiple migration scenarios to find what works best for your environment and overall business

objectives.

• Common issues that arise include: underestimating complexity, performance degradation if the environment has not been configured appropriately, data loss or corruption, longer than anticipated downtime affecting business operations.

OR

With Softchoice

Softchoice handles it all. We leverage alternative scenarios based on your organization's specific needs, with executive oversight in place to ensure minimal disruption.

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5 Testing, monitoring and optimizing

The DIY approach

Perform testing

- Functional testing: this verifies all aspects of the application function correctly post-migration.
- Performance testing: compare pre and post-migration benchmarks to make sure it meets required specifications.
- Security testing: conduct security assessments including vulnerability and penetration testing.
- Integration testing: this makes sure applications integrate seamlessly with other systems and services, both onprem and in the cloud.

Monitor

- Establish baselines and monitor performance against this to quickly identify any problems.
- Implement real-time monitoring tools to track application performance and system health.
- Set up alerts and notifications for performance dips, security issues or other critical incidents to address issues proactively.

Optimize resources

- Continually assess and adjust resources to meet the application's needs without over-provisioning. This includes right-sizing services and scaling resources dynamically based on load.
- Regularly review and optimize cloud spending. Utilize cost management tools provided by cloud providers to identify and eliminate unnecessary expenses.
- Implement automation for routine tasks to increase efficiency and reduce the potential for human error. This might include auto-scaling, automated backups, and automated performance tuning.

• Review and consolidate redundant applications and services to streamline operations and reduce costs.

OR

With Softchoice

Collaborate with Softchoice in a few meetings and we'll optimize your new AWS environment through expert support and guidance. At this time, we also identify automation opportunities for efficient resource management.

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6 Cost analysis and optimization

The DIY approach

Analyze expenses

- Break down costs by service, department, or project. This will help identify where the spend is the highest and where efficiencies can be implemented.
- Analyze the utilization rates of resources to identify over-provisioning or underutilization and adjust accordingly.
- Use resource tagging to allocate costs accurately across different teams or projects. This helps in tracking and managing cloud spend more effectively.

Implement cost control measures

- Set up alerts when spending approaches or exceeds budgeted amounts.
- Create spending forecasts based on current trends and usage patterns.
- Implement policies that restrict provisioning to necessary instances only, possibly requiring approvals for larger or more expensive resources.

Optimize your cloud

- Regularly review and adjust the size of instances to match the workload requirements.
- Implement auto-scaling to dynamically adjust resources based on actual usage, ensuring efficiency and cost reduction.
- Evaluate data storage practices and costs. Implement lifecycle policies to move older data to cheaper storage classes or archive data that is infrequently accessed.
- Review and optimize data transfer costs. This can include reducing the data transferred between services or regions and optimizing the network architecture.

OR

With Softchoice

Our fixed price lift and shift services means you've known the price from the start, no surprises. We also help build processes you need to continue optimizing your cloud costs going forward.

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7 Security and compliance

The DIY approach

Implement security measures

- Consider access management following the principle of least privilege, role-based access control (RBAC), network segmentation and isolation to enhance security by limiting network access, firewalls, encryption policies for data at rest and in transit, network security, and other security protocols likely key management.
- Implement balanced security measures, meaning they do not overly complicate or hinder user experiences.

Understand compliance

- Research and stay on top of data privacy regulations for your region.
- Understand and comply with laws regarding where data can be stored and processed.

Monitor

- Implement continuous monitoring solutions to detect and respond to security threats in real time.
- Implement comprehensive logging and monitoring of all cloud resources and activities.
- Develop and test an incident response plan specific to the cloud environment. Regularly test the plan to ensure it is effective and that teams are familiar with their roles in a crisis.

OR

With Softchoice

As an AWS Control Tower delivery partner, Softchoice prioritizes security, with high standards in place to ensure our customers' cloud environments remain protected.

If you've made it this far and are still considering a DIY approach, feel free to keep reading. If you're ready for a seamless migration to AWS with Softchoice.

Click here to get started

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8 Training and change management

The DIY approach

Train employees

- Create training programs for employees. This should include role-specific training. For example technical training for IT staff and usage training for end users.
- Early stakeholder engagement allows for input throughout the process and can help guide the necessary training.
- Establish mechanisms for continuous feedback from stakeholders and end users. Schedule and execute enough training programs for the entire organization to participate. Plan for periodic refresher courses.
- · Get end users to accept changes.
- · Evaluate training effectiveness.

Managing change

- Communicate the change and the benefits the team stands to gain.
- Identify and empower change advocates within each team to help facilitate the change and encourage teams to adopt.
- Conduct surveys or interviews to gather feedback on the training's effectiveness.

OR

With Softchoice

Softchoice provides handoff documents that will facilitate training sessions going forward. These in-depth documentation and resources help guide ongoing learning.

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9 Monitoring and performance management

The DIY approach

Set up monitoring tools

- Select tools that are compatible and offer comprehensive coverage. They should be able to monitor a wide range of metrics including performance, security and cost management. Identify and then configure based on your key performance indicators. Then establish baselines and thresholds for the alerts.
- Make adjustments to insights gained from monitoring tools.

Performance management

• Generate regular reports to review the overall health and performance of the cloud environment. • Predict future needs or identify recurring problems through trend analysis.

• Perform continuous optimization to improve efficiency, such as optimizing resource allocation or updating application configurations.

OR

With Softchoice

Softchoice determines the advanced monitoring tools, proactive alerts and continuous performance management efforts that will help you get the most out of your cloud environment.

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10 Disaster recovery and business continuity

The DIY approach

Risk assessment and recovery objectives

- Determine potential threats to your infrastructure: cyber-attacks, natural disasters, system failures or human errors.
- Conduct a business impact analysis to identify critical systems and processes and what the potential impact would be of an outage or loss on the business.
- Establish a recovery time objective: a maximum acceptable downtime.
- Establish a recovery point objective: a maximum period of data loss that is acceptable during a disaster. This also determines how often data backups must be performed.

Select disaster recovery strategy

- Decide on data backup method: on-site, off-site and/or cloud backups. Consider automation of backups and the use of multi-regions where applicable.
- Plan and automate procedures for switching to a backup system (failover) and returning to the original system after the issue is resolved (failback).

Everything else

• Make sure you also look at how the plan will be implemented, emergency contacts, training and awareness, and legal compliance and consideration.

OR

With Softchoice

Softchoice helps you build a robust disaster recovery plan leveraging AWS best practices for enhanced business continuity. We'll help you build automated processes for efficient recovery, and put regular drills in place for seamless operations.

A DIY cloud migration is possible; it just requires a lot of planning, knowledge, resources and time. With Softchoice, you benefit from our programmatic approach to building a cloud strategy that connects and impacts every aspect of your business. Get expert support with design, building, financial planning, sourcing, management and more.

Contact your Softchoice Account

Manager for more details.

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Documents / Resources



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AWS Cloud Migration services, AWS Cloud Migration services, Cloud Migration services, Migration services, services

References

- <u>A Softchoice: Success. Fully realized.</u>
- User Manual

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