Cloud computing checklist: 4 steps to better IT decisions in 2021

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Avoid costly mistakes when adopting cloud solutions. Follow key steps in our new cloud computing checklist.

Cloud computing initiatives accelerated at a breathtaking pace in 2020. COVID-19's impact **created an imperative** to enable remote work and push systems, processes, and data to the cloud.

By second quarter 2020, spending on public cloud infrastructure had increased 47.8% (year over year) to $14.1 billion, according to International Data Corp. (IDC). This increased investment is expected to continue, and IDC predicts that combined public and private cloud spending will reach $109.3 billion by 2024.[1]

But here's what hasn't changed: Moving to the cloud still takes careful planning. Even with a greater urgency to adopt cloud solutions, organizations cannot afford to take shortcuts when making decisions.

Choosing the right cloud computing solution is a collective effort of the CIO, CFO, and IT leadership team. Together they must decide what cloud solution to invest in, with everyone bringing their own perspectives and priorities.

To make more informed IT decisions on their journey to the cloud, leaders can follow this four-step cloud computing checklist:

Step one: Assessment

Success at the assessment stage depends on executives and IT leaders collaborating effectively and reaching consensus on the right approach. Teams should conduct a deep assessment of business and IT needs, potential cloud computing solutions, and current IT infrastructure.

Some tasks and questions to consider include:

Define cloud strategy. What's the business case for cloud computing? Leaders should gain clarity and consensus on business priorities and how cloud computing solutions support them. Next, they should decide how aggressively to pursue these priorities and determine the budget and timeline that will be required.

Perform discovery. Organizations should take an inventory of their current data, infrastructure, and applications. What is the total cost of ownership of these resources, and how difficult might migrating each resource be?

Assess workforce impacts. Leaders should determine the impact to employees and the processes they manage. For example, certain manual tasks can be automated in a cloud environment, freeing up IT specialists for more complex projects. Managers should evaluate whether their engineers and other team members have the requisite skills to manage cloud environments or if new staff or training will be required.

Evaluate cloud computing solutions. Leaders should short-list top vendors by researching and prioritizing the cloud solutions that fit their needs – from public and private cloud to hybrid cloud. Then they can determine the cost savings of each solution and create a list of pros and cons. What other opportunities or process improvements do cloud computing solutions present?

Complete migration plan. IT leaders should develop a detailed plan for which assets will be migrated as is (versus retired or modernized), where they will be moved, and in what sequence. Then they should map the dependencies between assets that must be considered before migration and outline the risks of migration and how those will be mitigated.

Step two: Foundation

All policies, roles, and responsibilities must be documented clearly. Some organizations neglect to set up their foundations properly, but they need to have the right set of guardrails and controls in place before migration. Without these, organizations risk security lapses or surprises in monthly operational costs.

Here are some ways to address cloud governance:

Define the security baseline. Organizations should establish [security requirements](#) for data, networks, applications, and other layers – and how to enforce them – especially as they relate to any regulatory requirements, such as the *Healthcare Insurance Portability and Accountability Act of 1996* for healthcare organizations.

Define the operational baseline. This task involves determining the appropriate cloud operating model, including the right teams, structures, and access controls. Teams then should set a monitoring baseline and strategy for how to monitor the model.

Establish additional cloud governance policies. Beyond security, operational, and monitoring policies, what other rules are needed to maintain security and privacy or to control costs?

Step three: Migration

Now comes the heavy lift: the actual migration of data, servers, and applications to the cloud. This process could take from weeks to months, depending on the size and complexity of an organization's portfolio. Leaders should:

- **Revisit the migration plan.** Does the plan still outline the best approach, or does it require updating to reflect any new refactoring or replatforming of applications to optimize them for the cloud?
- **Explore migration tools.** Depending on the approach, migration tools and automations can improve consistency and speed.

Step four: Innovation

Cloud computing solutions can generate substantial savings compared to legacy, on-premises environments. Organizations can reinvest those savings into new projects and technologies without making additional capital investments.

During this final step, organizations should:

- **Optimize existing processes.** Companies should continually evaluate ways to improve the security, efficiency, and cost savings of their cloud environments.
- **Analyze cutting-edge technologies.** What's next on the cloud computing road map? Innovation is the right time to explore the potential benefits of new services and technologies, from automation and robotics to Kubernetes and containerization.

Investments in cloud innovations can add tremendous value when executed with a plan, allowing organizations to get their solutions and products to market more quickly and meet customer demand. Cloud computing infrastructure gives organizations a new level of business agility, IT efficiency, quality of service, and innovation.

[1] "Spending on Public Cloud IT Infrastructure Surpasses Spending on Traditional IT Infrastructure for the First Time in the Second Quarter of 2020, According to IDC," International Data Corp., Sept. 29, 2020, **https://www.idc.com/getdoc.jsp? containerId=prUS46895020#:~:text=Cloud environments, and particularly public,infrastructure for the first time**

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Contact us

Mike Grob

Principal, Consulting

+1 312 606 7161

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