

Tackle Your Cloud Challenges With Forrester's Scenario Quick Start Cards

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Summary

The ever-evolving world of cloud faces challenges that require an equally responsive set of solutions. Forrester usually fields these questions via inquiry calls, but many operators want to get moving even faster. Cloud leaders need a quick cheat sheet on how to get moving on their most difficult challenges. This report, and the corresponding downloadable presentation, outlines common challenges that cloud leaders face. Click on the scenario that applies to your circumstances to get a quick step-by-step guide to resolve your challenge.

Additional resources are available in the [online version](#) of this report.

Tackle Your Most Common Cloud Challenges

Forrester has created scenario quick start cards to help cloud leaders navigate the most common scenarios that they face. Find the scenario you're struggling with and go to the corresponding scenario quick start card. This quick start card will you going and prompt ideas, but you'll need to pair these suggestions with information gathering and analysis. You can also download the full set of quick start cards in the attached PowerPoint tool, which is accessible via the download link at the top of the report or under "downloads" on the right-hand side.

- **Scenario A: data center going to the cloud.** Our company has committed to migrating to the cloud, but we're getting caught up in time-intensive business cases on an app-by-app basis that's slowing our progress. We've got a hard deadline on getting out of our data center, and it's quickly approaching (see Figure 1).
- **Scenario B: escalating cloud costs.** Cloud spending has grown significantly since our initial usage. Not only is it higher than predicted — it's also highly unpredictable and disconnected from our billing department (see Figure 2).
- **Scenario C: optimal tool use limited by capex budgets.** Our business is capital-intensive, and our budgets are structured in such a way that our capex budget is far more easily secured than opex is. This restricts our technology decisions (see Figure 3).
- **Scenario D: build a cloud center of excellence.** Our company has a cloud strategy but lacks a champion for this initiative. We want to identify the right skills and roles required and establish a formal cloud center of excellence, as it represents a major technology platform that we're standardizing on (see Figure 4).
- **Scenario E: adapt operations for the cloud.** Our company has embraced public cloud, but we don't feel prepared to manage public cloud operations. It's currently siloed from the remainder of our operations activities (see Figure 5).
- **Scenario F: protecting workloads in the cloud.** Our company is leveraging multiple cloud technologies, including infrastructure and apps. As data goes to the cloud, we must secure it and ensure that the entire stack is also protected, regardless of who manages that layer (see Figure 6).
- **Scenario G: get started on Kubernetes (K8s).** Our company wants to use K8s as a basis for our cloud strategy, but there are so many distro choices and configuration options that it's hard to know where to start. How do we stage our investments to drive maximum business value (see Figure 7)?

- **Scenario H: move enterprise apps to the cloud.** Our company wants to modernize existing enterprise applications by taking advantage of services, flexibility, and costs in public cloud platforms rather than a software-as-a-service (SaaS) replacement (see Figure 8).
- **Scenario I: extend VMware to the cloud.** Our company wants to leverage the VMware technology standard in the public cloud, either to create API parity between the two environments or to accelerate movement to the cloud (see Figure 9).
- **Scenario J: filling cloud-native skill gaps.** Technology skill gaps are plaguing the industry. Our company is having a hard time building, maintaining, and/or hiring cloud skills (see Figure 10).
- **Scenario K: prepare for a cloud contract negotiation.** Our cloud spend rose in response to the pandemic. We're looking to renegotiate the terms of our contract to reflect this larger usage. We want to know what others are doing (see Figure 11).
- **Scenario L: tackle app modernization.** Our company is undergoing modernization of our core systems so that these applications can keep up with the modern demands of our business. There are thousands of these apps, and most of them are monolithic in nature (see Figure 12).
- **Scenario M: get started on private cloud.** Our company wants to build a private cloud, but we've struggled to get this effort off the ground in a way that delivers speeds comparable to those of a public cloud (see Figure 13).
- **Scenario N: mitigate cloud vendor lock-in.** Our company is increasingly aware of our new cloud dependencies for critical workloads. In the interest of vendor risk management, we'd like to mitigate lock-in where it's not strategic (see Figure 14).
- **Scenario O: extending public cloud to the edge.** Our organization wants to extend public cloud capabilities to edge environments where data and services optimize outcomes in connected assets. Edge environments often have specific access, availability, throughput, or latency requirements that are required for seamless application delivery and effectiveness (see Figure 15).
- **Scenario P: solving for cloud data management.** Our organization struggles with navigating their data estate and making decisions on how to create the best data consumption experience in a federated ecosystem (see Figure 16).
- **Scenario Q: achieving compliance in the cloud.** Our company must abide by multiple regulatory frameworks to continue to meet evolving regulations across the multiple cloud platforms and cloud technologies we leverage to support our business (see Figure 17).

- **Scenario R: selecting a cloud partner.** Our company is seeking to accelerate our cloud migration and modernization strategy, but our internal resources are limited. We're seeking an external service provider to help (see Figure 18).

Figure 1

Scenario A

Scenario A: data center going to the cloud

Challenge

Our company has committed to migrating to the cloud, but we're getting caught up in time-intensive business cases on an app-by-app basis that's slowing our progress. We've got a hard deadline on getting out of our data center, and it's quickly approaching.

Core principle

Don't get lost in solution rationalization for each app; instead, find exceptions that can't move.

Key steps to resolution

- When a cloud migration is aligned to a time-sensitive initiative or requires a massive migration to fund the business case, don't get slowed down with solution rationalization efforts. Change the conversation from "Why would it be better to migrate this app to the cloud?" to "Why can't this app migrate?" so teams can focus on finding exceptions rather than trying to prove an improved state for every single business app.
- Insert a force factor, such as a "cloud migration mandate" or eliminating options (e.g., selling off a data center or ending a colocation contract). This makes it impossible to miss a deadline.
- Consider options that might accelerate your plan without the same risk of performance degradation, like a VMware-based cloud platform if you're standardized on VMware vSphere on-premises.

Quote from peer

"When we think about cloud migration, it's at a macro level. We can't get caught in app-by-app business case decisions because it incentivizes no change behavior, minimizes the greater benefits, (e.g., cost savings from shutting down a data center), and is wasted time that could be spent on moving the workloads."

— CIO at a major insurance company

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Figure 2

Scenario B

Scenario B: escalating cloud costs

Challenge

Cloud spending has grown significantly since our initial usage. Not only is it higher than predicted — it's also highly unpredictable and disconnected from our billing department.

Core principle

Leverage cost optimization tools to identify waste and rightsize your instances.

Key steps to resolution

- Prioritize waste elimination, using cloud cost management and optimization tools.
- Enable autoscaling with “stop points” for non-production workloads.
- Leverage cloud cost monitoring and optimization products: Native and point products help identify waste and suggest longer commitments to yield savings. Point products right-size instances using performance monitoring insights, forecast anticipated spend, simplify bills, and integrate into billing platforms.
- Move optimization from reactive to proactive management by giving information to developers earlier in the process.
- Integrate into a broader cost management strategy such as IT financial management (ITFM) or technology business management (TBM).
- Consider whether marketplace discounts or higher contract commitments will yield greater long-term savings.

Quote from peer

“Our cloud costs started to rise; once our cloud business office (CBO) was in place, our cloud spend had tripled. We made some improvements, but it just wasn’t going to be scalable. That’s when we brought in a cloud cost optimization tool.”

— Barbara Pavone, senior manager, CBO, Vanguard, at the CloudLIVE conference

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Figure 3

Scenario C

Scenario C: optimal tool use limited by capex budgets

Challenge

Our business is capital intensive, and our budgets are structured in such a way that our capex budget is far more easily secured than opex is. This restricts our technology decisions.

Core principle

Determine whether this is the right moment to fight your budget limitations.

Key steps to resolution

- Decide whether it's the right time to fight this with a compelling business case.
- If so, pick a mission-critical new workload to align your business case around so you can break down barriers for other workloads more readily.
- If not, explore the options that provide additional flexibility: 1) Lean on the FASB 86 ruling, noting that applications that can easily move on-premises can be "counted" as capital expenses; 2) follow the movement toward containerized software that allows for flexible software deployment rather than SaaS-only models; and 3) consider alternative approaches that are similarly bundled to accelerate momentum, i.e., converged infrastructure stacks that come bundled with automation software or hosted private clouds that allow you to purchase the infrastructure.

Quote from peer

"Start with something that's high profile that has to get done. It will make it easier. It allows you to be the white knights. Having that card was big. Otherwise, people would try and enforce procurement, data center policy, or audit just to slow it down. Having a hard deadline and business need helped get it passed; otherwise, it would have been sidelined."

— VP of infrastructure at a Canadian government agency

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Figure 4

Scenario D

Scenario D: build a cloud center of excellence

Challenge

Our company has a cloud strategy but lacks a champion for this initiative. We want to identify the right skills and roles required and establish a formal cloud center of excellence, as it represents a major technology platform that we're standardizing on.

Core principle

Create a core principle to guide the team, such as: Our platform team will foster cloud enablement in a manner that mitigates risk and adheres to corporate governance while accelerating adoption of cloud.

Key steps to resolution

- Create an advisory board composed of key stakeholders, such as architecture, finance, security, compliance, development, data leads, and network engineers, that have a stake in cloud enablement. Maintain this board moving forward to maintain two-way communication.
- Identify intended outcomes and create measurable goals.
- Choose a leadership model, such as two-in-box, consisting of a product owner who owns bringing the desired outcomes to market and a cloud architect who establishes product and platform standards and works with the product manager to evangelize cloud adoption throughout the enterprise.
- Scope and grow the team's responsibilities, starting with the highest priority outcomes, while balancing cost constraints.
- Future responsibilities of this team may include: 1) innovation enablement; 2) standardization where it enables faster value; 3) educating cloud consumers and facilitating smarter design choices; 4) creating and maintaining cloud-native DevOps platforms; and 5) overarching cloud strategy, scope, and roadmap.
- As the team progresses, it should sync cloud strategies with core operational practices, infrastructure strategy, data management practices, and disaster recovery plans.

Quote from peer

"One key early step we took was to establish a cloud governance function, consisting of risk managers and cloud engineers, to curate capabilities and controls that would keep us well managed as we moved applications into the cloud."

— George Brady, EVP, CTO, Capital One

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Figure 5

Scenario E

Scenario E: adapt operations for the cloud

Challenge

Our company has embraced public cloud, but we don't feel prepared to manage public cloud operations. It's currently siloed from the remainder of our operations activities.

Core principle

Embrace modern operational practices, set responsibilities, and balance standardization with cloud-specific approaches. The goal is enablement.

Key steps to resolution

- Set up a cloud center of excellence, or better yet, a cloud platform team.
- Develop a RACI chart for core operational tasks.
- Explore and familiarize yourself with cloud-native operational tools and frameworks, including policies.
- Create policies regarding access, permissions for environments/individuals/teams, budgets, and workload reassignment in the event of departure. Create some tags with policies associated with them.
- Create predefined design patterns/preapproved stacks to help accelerate developers.
- Connect into core systems (i.e., identity directory, monitoring, CMDB, incident management, and enterprise service management [ESM] platform) and follow industry best practices for each.
- Enhance with cloud-specific ops solutions (e.g., cloud cost optimization, observability tools, cloud workload security, and cloud gateways).
- Work with the operations team that's modernizing your technology operations practices (i.e., cross-functional teams, continuous delivery, product-centric operating model, collaborative techniques, value stream aligned, learning oriented, governance via promises, or functional/immutable).
- Focus on delivering lean change management, incentives to standardize, and a culture of continuous learning and iteration.

Quote from peer

"As we moved from traditional ops to a site reliability engineering (SRE) ecosystem, our biggest opportunity was reducing toil so that engineers can spend time on activities that drive business impact and customer outcomes. We think of toil as work that is manual, repetitive, tactical, and devoid of enduring value — but automatable. So, to tackle toil, we focused on automating away the need for manual intervention."

— Vivek Balivada, director of digital SRE and ops, Lowe's

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Figure 6

Scenario F

Scenario F: protecting workloads in the cloud

Challenge

Our company is leveraging multiple cloud technologies, including infrastructure and apps. As data goes to the cloud, we must secure it and ensure that the entire stack is also protected, regardless of who manages that layer.

Core principle

Embed Zero Trust security principles in your cloud security approach while directing immediate attention to critical data.

Key steps to resolution

- Assign a cloud security architect to your cloud center of excellence.
- Define the shared responsibility models for your cloud technologies in use.
- Discover the security procedures used by all parties.
- Create a governance structure and RACI chart.
- Identify critical structured and unstructured cloud data and prioritize its protection.
- Deploy cloud workload protection (CWP) solutions to protect against malware, unauthorized file changes, and privilege escalation.
- Deploy cloud security posture management (CSPM) solutions to discover, detect, and remediate unauthorized changes to IaaS and SaaS platform configurations and identities.
- Use cloud identity governance solutions to understand, control, and attest access between cloud resources (human and nonhuman access to resources).
- Use container security solutions to detect and remediate configuration drifts and vulnerabilities pre-runtime and at runtime.

Quote from peer

“Cloud security isn’t taking a bunch of on-premises security solutions and trying to retrofit them to cloud workloads. Cloud security is much more complex than on-premises security and requires explicit planning and purpose-built tools.”

— Director of cloud operations at a North American high-tech company

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Figure 7

Scenario G

Scenario G: get started on Kubernetes (K8s)

Challenge

Our company wants to use K8s as a basis for our cloud strategy, but there are so many distro choices and configuration options that it's hard to know where to start. How do we stage our investments to drive maximum business value?

Core principle

Avoid overcomplicating your K8s journey by settling for the highest level of third-party support as your context allows.

Key steps to resolution

- Start by taking the Cloud Native Computing Foundation's free introduction training seminar.
- Familiarize yourself to the main choices you have: 1) Use and/or customize open source Kubernetes (not common for enterprises); 2) use a managed Kubernetes service on a public cloud; or 3) use a Kubernetes distribution that can be leveraged across multiple environments.
- Determine your cloud platform profile: Build, operator, or consumer?
- Map your critical workloads to where you might want to deploy: on-premises, public, private cloud, or edge?
- Triage workloads to identify candidates for containerization and modernization.
- Establish your desired development and operations center of gravity.
- Define integration strategy between K8s and non-K8s workloads.
- Work with your security architects to put a security plan in place to avoid common issues.
- Identify skills gaps and implement an appropriate training plan.

Quote from peer

"We've been trying to embrace the cloud. We've run individual projects to migrate to cloud, but we didn't set up a specific container strategy. It was mostly just lift-and-shift. Now, we want to figure out how to set up for containers. Should we use containers? Is there a business case for using containers? Which types of applications should we consider for containers?"

— CIO at an education service provider

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Figure 8

Scenario H

Scenario H: move enterprise apps to the cloud

Challenge

Our company wants to modernize existing enterprise applications by taking advantage of services, flexibility, and costs in public cloud platforms rather than a software-as-a-service (SaaS) replacement.

Core principle

Determine if public cloud is the right path for your core enterprise applications while engaging in higher-level services with the platform provider and your key services suppliers.

Key steps to resolution

- Develop a strategy for enterprise applications, including enterprise resource planning (ERP), supply chain management (SCM), and human capital management (HCM).
- Given your requirements, evaluate whether migrating to SaaS versions of their products benefits your company or is possible.
- Determine current and expected costs of continuing to run enterprise apps on-premises, including upgrades and operational support.
- Compare public cloud providers' cost estimates for running your enterprise apps, and don't forget to include pricing for high availability (HA).
- Assess whether and how public cloud providers' native services enhance your deployment. Explore the certified infrastructure solutions available for the app you're migrating and other partnerships.
- Consider whether you'll require additional support to migrate or maintain this application on a public cloud platform via a global systems integrator (GSI) or application managed service provider.
- Arrange resources (internal or via third parties) to migrate enterprise apps to the cloud.
- Follow migration best practices such as dependency mapping and performance measurement.

Quote from peer

“Because ERP migrations to the cloud are so large, those efforts are taking us approximately 12 to 18 months to complete, whereas some of our earlier cloud migrations took six months.”

— Adarryl Roberts, program executive officer, Defense Logistics Agency

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Figure 9

Scenario I

Scenario I: extend VMware to the cloud

Challenge

Our company wants to leverage the VMware technology standard in the public cloud, either to create API parity between the two environments or to accelerate movement to the cloud.

Core principle

Be aware of the trade-offs of this approach and be specific about why you're taking this path for part of your cloud strategy.

Key steps to resolution

- Determine if the benefits of a VMware-based cloud approach outweigh the costs and caveats. Note that you'll need to purchase new licenses and discounting is available only if you have existing perpetual licenses. Some common use cases include virtual desktop infrastructure (VDI), data recovery (DR), or to accelerate a migration. Some companies like to leverage the existing team skill sets.
- Explore the major VMware multicloud infrastructure solutions.
- Explore the hosted private cloud options available if you seek dedicated instances, white glove services, unique instance sizes, managed support of the OS, or greater control of the vSphere console.
- Make sure the solution is available in your geography and/or the government cloud of your choosing.
- Understand the underlying network infrastructure requirements (e.g., compatibility for NSX or a need for HCX for initial migration).
- Ask whether partners will make your situation more cost-effective (e.g., Faction's low-cost storage volumes supporting VMware on AWS's DR use cases).

Quote from peer

"We've got a mandate to be 70% cloud-based by 2022. For us, the most important part of our cloud strategy is building new apps. We want to do our cloud migration quickly for our existing workloads so we can focus our energy on the cloud-native aspect of our strategy. We want to explore VMware options on the public clouds."

— Chief architect at a government organization

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Figure 10

Scenario J

Scenario J: filling cloud-native skill gaps

Challenge

Technology skill gaps are plaguing the industry. Our company is having a hard time building, maintaining, and/or hiring cloud skills.

Core principle

Build a sustainable training program while embracing major cultural changes to lower attrition.

Key steps to resolution

- Start by assessing your current skills and requirements.
- Secure budget and time for training in your roadmap.
- Create a small team of individuals who love to learn and who will foster a supportive learning environment for others.
- When you're ready to build skills, focus on one platform rather than multiple platforms.
- Give your team time during the workday to build these skills and attend these trainings.
- Learn with training programs that incorporate real-use based skills (versus test-based).
- Mitigate the pain of skills gaps by creating standard and reusable components.
- Expand skills outside your core team by pairing your experienced members with new ones.
- Focus hiring on basic technology skills (e.g., Linux) paired with a desire to learn and tackle difficult technical challenges.
- Look to supplement your skills shortcomings with services suppliers. Companies located in remote areas may find that this is an ongoing aspect of their cloud skill strategy.

Quote from peer

“Most organizations already have a wealth of institutional knowledge and cultural practices that are well established in tenured staff members. This can be used to the organization's advantage if the existing staff is given an opportunity to learn how to marry institutional knowledge and culture with cloud technologies.”

— Stephen Orban, GM, AWS Data Exchange

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Figure 11

Scenario K

Scenario K: prepare for a cloud contract negotiation

Challenge

Our cloud spend rose in response to the pandemic. We're looking to renegotiate the terms of our contract to reflect this larger usage. We want to know what others are doing.

Core principle

Go into the engagement understanding what each party wants, the power of your own brand/story, and the three main scenarios.

Key steps to resolution

- Decode the pricing structure to understand how it's calculated and how each term is defined.
- Decipher what all parties in the negotiation want. Answer the following: What is their key business goal of the vendor (e.g., land and expand, market traction with new products, or lock-in)? What are the major initiatives or products that this vendor is focusing on right now? What type of deal does the salesperson want (e.g., renewal, growth target, or upsell specific products)?
- Reflect on your own advantages. Answer the following: Can we be a public-facing customer? Are we a well-known brand? Is this vendor focused on my industry? How interesting is our cloud story? Is there an opportunity to co-innovate? Are there other related products you can bring into the mix?
- Create three scenarios going into the negotiation: 1) Vendor preferred: a more lucrative deal for the salesperson but including more products or including growth; 2) user preferred: a better deal for you; or 3) "walk-away": a minimal deal with what your walk-away would be — re: optional products, lower capacity commitment, or elements that could be excluded.
- Explore other asks that can sweeten your deal. Consider pushing for: technical account managers (TAMs), specifying quantity and whether their time is a dedicated cost of support, credits on partner services for migration purposes, training credits, or free skilled staff for a certain time period.

Quote from peer

"Our current cloud spend doubled last year. We just finished our major cloud migration, and instead of getting greater discount levels, our provider seems to care less about us since there's less growth potential. What should we do?"

— Lead architect at a major manufacturer

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Figure 12

Scenario L

Scenario L: tackle app modernization

Challenge

Our company is undergoing modernization of our core systems so that these applications can keep up with the modern demands of our business. There are 1,000s of these apps and most of them are monolithic in nature.

Core principle

Prioritize apps that integrate/enable client-facing or analytics-based activities Weigh the opportunity costs of your modernization efforts with less involved efforts.

Key steps to resolution

- Categorize your apps by priority to modernize, creating a list of workloads directly impacting customer engagements or limiting your company's ability to innovate or uncover key insights about your business.
- Evaluate whether a less time-intensive approach would be more advantageous, such as SaaS alternatives or lift-and-shift to a public cloud with minimal changes.
- Identify a modernization plan for your high-priority items (e.g., method, speed, technology, or roadmap). For example: Will you containerize the app before bringing the service into microservices? What work will be done this year versus in the next five years? Will you use K8s in parallel with your mainframe technologies and build around the existing app? Or will you look to replatform and eventually rewrite? Is the “strangler” method the best way to reasonably replace without disruption?

Quote from peer

“We wanted to bring that kind of ‘burstability’ to the rest of our infrastructure — applications that weren’t developed to run in containers. In addition to the online banking applications running in Kubernetes, we support over 300 other internal applications that are critical to our day-to-day operations — including fraud detection and corporate account management — and 95% of those run on Anthos on VMware.”

— Keith Silverstri, CTO, Key Bank

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Figure 13

Scenario M

Scenario M: get started on private cloud

Challenge

Our company wants to build a private cloud, but we've struggled to get this effort off the ground in a way that delivers speeds comparable to those of a public cloud.

Core principle

Assess your strengths and the initiatives that can help move mountains at your organization to get buy-in for large scale change. Keep the strategy itself as simple as possible.

Key steps to resolution

- Pick an easy win to start. Don't fall into the trap of favoring overly complicated strategies in the name of covering all the bases. A powerful pilot can help sell a larger cloud strategy.
- Consider where you want to go before locking into technology choices that are designed specifically for your pilot. Build technology investments into the roadmap.
- Assess your strengths — do you have the engineering and integration capabilities, or do you want a ready-to-use stack, or will you outsource?
- Use your existing virtualization platform to begin the journey. The three most common strategies are: 1) Evolve what you've got (most use VMware vSphere as a base); 2) build a new cost-effective stack at scale (open source based) but at a steep tech skills cost; and 3) buy a complete package (hyperconverged infrastructure).
- Focus on Kubernetes for container orchestration and facilitating a new agile and iterative development culture. It's still the standard for both container orchestration and for infrastructure as code for private cloud.

Quote from peer

"At TubeMogul, we went through multiple cycles of trial and error to pick our technologies or vet vendors. Some of those technologies barely exist anymore (for example, CloudStack or Eucalyptus). We ended up settling for OpenStack with a mix of bare metal. Some key foundations of our first design assumed cheap but powerful commodity hardware with simple network and failure design. We leveraged only the core services from OpenStack and a basic CI/CD workflow with Jenkins and PXE for bare-metal provisioning."

— IT decision leader at TubeMogul

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Figure 14

Scenario N

Scenario N: mitigate cloud vendor lock-in

Challenge

Our company is increasingly aware of our new cloud dependencies for critical workloads. In the interest of vendor risk management, we'd like to mitigate lock-in where it's not strategic.

Core principle

Be informed about the benefits and drawbacks of lock-in before taking steps to reduce nonbeneficial lock-in and building skill sets on alternative clouds and cloud-neutral options.

Key steps to resolution

- Assess whether your organization is ready to or even should reduce lock-in. If lock-in is necessary to achieve the speed and quality your organization needs — recognize that.
- Investigate the current state of vendor lock-in, including where it's advantageous, painful, unnecessary, or unintended.
- Develop a plan to eliminate negative or unnecessary lock-in where possible.
- Deploy applications using enterprise container platforms that use Kubernetes-based solutions that run on multiple clouds or that simply leverage the K8s standard.
- Begin building multicloud skills and management capabilities, using vendor-neutral tools when available, and testing some less-critical apps on alternative public cloud platforms.
- Deploy to a secondary cloud provider for a small selection of workloads (e.g., office functions, or analytics). This will continue to build skills on multiple clouds.
- Remember that portability and point-and-click cross-cloud migration are different and not interchangeable. Focus on portability, as the latter will be prohibitively expensive.

Quote from peer

“Launching our new digital infrastructure strategy (Azure and GCP) is a critical step in our multiyear journey to transform Wells Fargo, making it easier for customers to do business with us and creating a better working experience for our employees.”

— Saul Van Beurden, head of technology, Wells Fargo

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Figure 15

Scenario O

Scenario O: extending public cloud to the edge

Challenge

Our organization wants to extend public cloud capabilities to edge environments where data and services optimize outcomes in connected assets. Edge environments often have specific access, availability, throughput, or latency requirements that are required for seamless application delivery and effectiveness.

Core principle

Focus on the workloads you wish to extend to the edge to best understand which solutions satisfy its requirements.

Key steps to resolution

- Explore Forrester's edge and IoT priority.
- Only a small portion of your workloads may require capacity at the edge, where local computing is required to fulfill the business need. Determine which factors prevent your workload(s) from fully operating in the public cloud or in your on-premises data centers.
- Explore challenges that may prevent edge deployment, such as regulatory compliance issues, workload size, and processing demands.
- With a clear idea on workloads requirements, explore the landscape of solutions available.
- Determine whether there's a need for workload affinity across your various environments that might require API consistency or the use of cloud-native tooling to optimize the deployment of your workload over time.
- Support your selection with the appropriate networking strategy, recovery plan, and governance strategy. You may face compatibility limitations.

Quote from peer

“Companies are moving to virtualization, not just in virtualization but in the network layer as well, where you put a virtual network function (VNF), where you terminate an autonomous system number route (ASN) to expose an SD-WAN capability back to some location. You can't assume the same things in a tier-three facility. The edge is not always as fault-tolerant as a big tier-three facility.”

— Cole Crawford, CEO of Vapor IO

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Figure 16

Scenario P

Scenario P: solving for cloud data management

Challenge

Our organization struggles with navigating their data estate and making decisions on how to create the best data consumption experience in a federated ecosystem.

Core principle

Get organized with a centralized view, a metadata environment, reusable components, and a great working relationship with the broader cloud management team.

Key steps to resolution

- Build a domain-centric view of data by linking analytic and digital consumption journeys to data views, definitions, and insights.
- Maintain a robust metadata environment to describe the physical, logical, and semantic state of the data at rest and in motion.
- Design, build, and deploy repeatable and reusable data products of pipelines, services, and controls.
- Engage early and frequently with cloud management teams to test, retest, and rebalance infrastructure within and between clouds for evolving pipelines and workloads.
- Maintain and monitor data flows between cloud data platforms, application data platforms, and mobile/machine data sources to check for quality and performance issues.
- Unify data governance activities and responsibilities across security, privacy, protection, trust, and regulatory imperatives.
- Measure data metrics meaningfully to determine the outcome potential of the business process and initiative.

Quote from peer

“Data cataloging and metadata management shortened the time to build and deploy models from six to two months.”

— Chief analytics officer at a financial service company

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Figure 17

Scenario Q

Scenario Q: achieving compliance in the cloud

Challenge

Our company must abide by multiple regulatory frameworks to continue to meet evolving regulations across the multiple cloud platforms and cloud technologies we leverage to support our business.

Core principle

Our cloud compliance strategy must support the goals and objectives of the business, and our shared responsibility models must align to our risk appetite while also supporting company innovation.

Key steps to resolution

- Create your cloud compliance strategy with defined implications for cloud infrastructure providers and SaaS applications.
- Inventory all cloud estate to understand what you have, what's being used and for what purpose, and what's no longer being used. And make sure you decommission/deprovision.
- Map your regulatory requirements to create a master framework that you can apply across cloud environments.
- Assess the current state for the technologies in use and the data accessed and stored in these environments. Assess the controls that cloud providers have deployed in your environment. Are they sufficient?
- Update internal policies accordingly and assess compliance with these measures, identify gaps, and implement compensating controls.
- Regularly assess and monitor the maturity and effectiveness of controls that will help significantly with audits.
- Engage stakeholders from business areas such as vendor management and legal.
- Expand the scope of the cloud center of excellence or equivalent body to include compliance.

Quote from peer

“We’re decentralizing cloud management to the greatest extent possible while operating under a governance structure to ensure that everybody is on the same page. We recognize that there are different requirements within each area of responsibility, but at the end of the day, we all need to be aligned and to synchronize as a department.”

— Dan DelGrosso, technical director, program executive office for enterprise information systems (PEO EIS), US Navy

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Figure 18

Scenario R

Scenario R: selecting a cloud partner

Challenge

Our company is seeking to accelerate our cloud migration and modernization strategy, but our internal resources are limited. We're seeking an external service provider to help.

Core principle

Start with your existing platform provider and services providers but evaluate existing suppliers on their cloud competencies.

Key steps to resolution

- Determine your hyperscaler strategy and establish relationships with the major platform providers.
- Establish requirements for advisory/strategy and migration/modernization.
- Evaluate incumbent suppliers on their cloud competencies.
- Determine appropriate service-level agreement (SLA), experience-level agreement (XLA), and GKS metrics.
- Issue an RFP/RFI instrument to evaluate and explore alternative options to your primary supplier.
- Review hyperscaler credentials of respondents.
- Review and evaluate RFP/RFI responses.
- Conduct in-person evaluations and workshops with down-selected suppliers.
- Identify the award winner and begin contract negotiations.

Quote from peer

"We're seeking a partner to be responsible for setting up our new cloud environment as part of building a multicloud environment. We intend to establish a multiyear contract under which we have a target set of services and spend level. We also do individual work orders underneath."

— SVP of business technology at a European energy company

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Supplemental Material

Online Resource

The online version of this report includes Forrester's scenario quick start cards PowerPoint tool. Click the download link at the top or at the right-hand side of this report on Forrester.com to access the tool.

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