



Managing Change in the Cloud



Helping your people thrive in the cloud

A Google Cloud Adoption Framework whitepaper

Google Cloud

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Executive summary

When moving to the cloud, many organizations concentrate their focus on the change in technology and overlook an area just as complex and impactful: cultural change. Having your people ready to embrace the change – supporting them with the right processes, equipping them with the right skills – is as important as getting the technology right.

To realize the full value of cloud technologies, many organizations are rethinking their IT organizational structure.¹ There are a variety of potential talent implications too – from adopting agile ways of working to hiring for more cloud-centric skills to looking at redeploying current IT skills and reskilling and upskilling current teams.

As one of the organizations that pioneered hyperscale infrastructure, which led to the creation of the cloud, Google has spent years nurturing its culture and workforce to best operate in the cloud. We leverage this experience every day to help organizations ready their workforce for the change, and in this whitepaper, we aim to pass that experience along to you, by:

- Providing a framework for thinking about your organization's cloud readiness (Sections 1 and 2)
- Exploring how different elements of the framework evolve and mature (Section 3)
- Sharing typical customer scenarios surrounding the journey to Google Cloud (Section 4)
- Examining common migration approaches that customers consider (Section 4)
- Articulating a set of principles based on best practices and lessons we've learned along the way, which influence our change management work with customers (Section 5)

These are principles rather than hard and fast rules. There is no one-size-fits-all answer about the end state, and every organization will have unique considerations that will guide key decisions throughout the journey.

For some, the journey to the cloud can be simple; for many, it will have complications. We believe that considering how to get everyone moving in the same direction will help make the radical impact offered by the cloud both more tangible and more sustainable.

¹ In a [2018 IDG survey](#), 48% of respondents expected the cloud to impact the operating structure for their IT organization.

The challenge of moving to the cloud

Cloud computing is a fast-moving field. The development of processing and storage technologies means that computing resources have become cheaper, faster, and more available than ever before. We now live in a consumption-driven world: to be more competitive, to deliver better outcomes faster, and with greater reliability and efficiency, organizations need to find a new way to consume IT. At the same time, IT resources (for example, storage and computing) are provided as general utilities that can be leased and released through the internet on demand.

As more organizations seek to use it to differentiate themselves from competitors, the momentum gathering behind cloud adoption will continue to increase. According to International Data Corporation (IDC), in 2018 almost half of IT spend was cloud based, with estimates to reach 60% of all infrastructure and 60–70% of all software, services, and technology spending by 2020.²

But the journey to the cloud can be a complex transformation. Many organizations are finding greater costs and greater obstacles to the adoption of the cloud than they anticipated. There is increasing recognition that successful digital transformation³ isn't only about technology. It's about people as well.⁴

Organizations will only realize the full potential of new technology if employees use it, if they know how to make the most of it, and if they are empowered to do things differently than before.

Successful digital transformation isn't only about technology. It's about people as well

² [Spending on IT Infrastructure for Deployment in Cloud Environments is Forecast to Grow 10.9% in 2018, According to IDC.](#)

³ There isn't a standard definition of "digital transformation" and so the term is at risk for becoming a hold-all buzzword. For the sake of simplicity, here we mean the use of digital technologies to increase the competitiveness of an existing business model (i.e., do more, both faster and cheaper) or to better meet customer demands with a new business model (i.e., create new products and services).

⁴ For an articulation of this principle, see [Successful Digital Transformation Isn't About Technology, It's About People.](#)

This recognition can be articulated by a range of questions:

- **Leadership.** How can we get leadership visibly and meaningfully behind the journey to the cloud?
- **Collaboration.** How do we break down the silos between the business, the technology, and other supporting functions?
- **Capabilities.** What new skills and capabilities do we need to make the most of the cloud?
- **Talent.** Where do we find potential employees with these new skills, and how do we get them to join and stay with us?
- **Engagement.** How do we win the hearts and minds of those who are skeptical of the cloud?

And there are several reasons why answering these questions successfully is critical for effective transformation:

- **Higher performance.** Organizations where leaders set the direction, but give their teams the **autonomy** to decide the route, have higher levels of trust, cooperation, and service delivery performance.⁵
- **Increased collaboration.** Increased levels of interteam “bridging” is an important link to engagement: employees who experience a **collaborative culture** like this are 1.8 times more likely to recommend their team as a great place to work.⁵
- **Minimized resistance.** People tend to be confronted with more information than they are able to process, and so they have a tendency to stick to the status quo.⁶ Communication strategies that channel “**dolphins not whales**” are more effective at breaking this sort of resistance down.⁷

The [Google Cloud Adoption Framework](#) provides our perspective on what drives successful cloud adoption, and we build on it here to articulate the principles for successful people-centric Google Cloud change management.

⁵ Our friends at DORA DevOps have looked at what leadership behavior and cultural attributes set apart high performers. You can read more about it at [The 2019 Accelerate State of DevOps: Elite performance, productivity, and scaling](#).

⁶ [Behavioral science](#) can help us understand why people resist change: a lot of it has to do with sheer capacity.

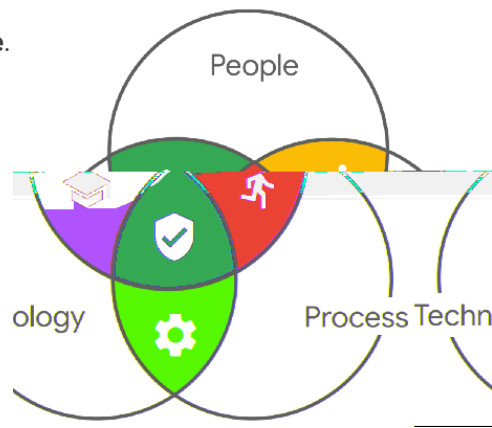
⁷ Oxford academic David Feeny has used [this analogy](#) for a long time. Broadly, it’s better to pop up often to talk about a little change (like a dolphin) than to make a big splash once in a while, only to disappear back into the depths for long stretches of time (like a whale).

Going further with the Google Cloud Adoption Framework

The [Google Cloud Adoption Framework](#) is our perspective on successful cloud adoption, based on our experiences working with customers and our own evolution in the cloud. It comprises the Cloud Maturity Scale (to analyze where you are today) and 17 epics⁸ (to help you prioritize and organize next steps to further your progress).

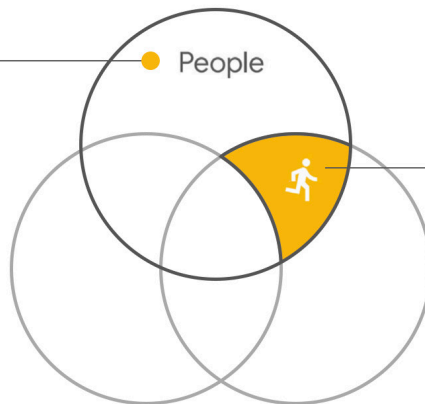
At the intersections of the rubric of people, process, and technology, there are four priority themes: the ability to continuously **learn**, to effectively **lead**, to efficiently **scale**, and to comprehensively **secure**. If you make the investment into these foundations from the start of your cloud journey, you will be supporting your organization’s ability to support increasingly ambitious business objectives – and it is also in these areas where there is often friction and complexity.

In this whitepaper, we’re going to concentrate on the **People** dimension and the **Lead** theme – which comprise five epics required to successfully transform people and culture.⁹ We will look at how these epics evolve over time as an organization moves along the Cloud Maturity Scale.



The People dimension

- Communication
- Behaviors
- People Operations



The Lead theme

- Sponsorship
- Teamwork

⁸ Epics are clearly defined, nonoverlapping workstreams.

⁹ We’ve summarized the key epics from a people-related perspective. If you want to dive into objectives for each of the epics, see the [Google Cloud Adoption Framework](#) whitepaper.

To kick-start the change, you'll need two things: top-down sponsorship from leaders who are committed to the journey, and a cross-functional and psychologically safe environment for those involved through great teamwork.

But to build early momentum for early adopters, you'll need to go further.

To set the right tone within the organization, and win hearts and minds, you'll want to develop an environment of transparent and open communications that reinforces collaborative and blameless behaviors. Within such an environment, you can further empower change by aligning people operations to ensure that the right structure, roles, and skills are in place to make change a long-term success. Table 1 lists the five epics and key behaviors for successful cloud adoption.

Table 1: Summary of the Google Cloud Adoption Framework people-related epics

Epic	Description
Sponsorship	Leaders visibly prioritize the cloud adoption strategy, providing resources and giving early adopters a mandate for change
Teamwork	Teams live and breathe collaborative and trusting behaviors, helping to optimize the adoption of cloud technology
Communication	Transparent communication is used to reinforce and nurture a culture where failures are shared openly, and treated as opportunities for improvement
Behaviors	There are clear expectations and support structures for people who continually seek to improve how they work as a team and empathize with their audience
People Operations	The organizational "muscle" – like role clarity, performance measures, and recognition – is tuned to help cloud adopters fulfill their new tasks and duties

The evolving employee experience

As your journey to the cloud progresses, the experience of your people – how it looks, sounds, and feels to work in your organization – will evolve. The Google Cloud Adoption Framework defines the key characteristics of different levels of adoption, known as the Cloud Maturity Scale, which provides the basis for an articulation of the changing employee experience. Table 2 summarizes the highlights of each of the three phases of the scale.

Table 2: The Cloud Maturity Scale

Maturity phase	Organizational state
Tactical	The focus is on reducing the cost of discrete systems and on getting to the cloud with minimal disruption. The wins are quick, but there is no provision for scale
Strategic	The organization has begun to embrace change, and the people and processes portion of the equation are now involved. IT teams are both efficient and effective, increasing the value of harnessing the cloud for business operations
Transformational	People and processes are being transformed, which further supports the technological changes. IT is no longer a cost center, but has become instead a partner to the business

Different organizations often have different starting points, and so there are no two identical end states. However, there are some common expectations at each evolutionary step in maturity.

Table 3 overlays this evolution from tactical to transformational against the five people-focused epics, to provide clarification on what “good” looks like as a goal, as cloud maturity evolves. For each of the epics, you can see the desired state evolve, with the cloud adoption increasing across the organization. This framework can be used to understand where you are today and to highlight potential gaps in where you need to be tomorrow.

Table 3: How the people-focused epics evolve

		Tactical	Strategic	Transformational
Priority success factors	Sponsorship	<p>Sponsorship is limited to senior management from one line of business or a team</p> <p>Cloud projects are self-funded primarily via cost savings</p> <p>Governance is ad hoc</p>	<p>Sponsorship extends to the C-suite</p> <p>Dedicated cloud budgets drive the cloud initiative at a strategic level</p> <p>Centralized governance overlooks all the cloud-related initiatives</p>	<p>There is comprehensive C-suite sponsorship, which consistently sets the tone for a cloud-first policy</p> <p>Sponsorship is reflected in department-level KPIs that ensure alignment and reduce potential for conflicting priorities</p> <p>Decentralized governance empowers the cloud-first policy</p>
	Teamwork	<p>Cloud adoption progress is driven by individual contributors with a personal interest in the cloud</p> <p>Collaboration between teams is difficult</p>	<p>Cloud adoption is driven by a dedicated cross-functional team of advocates, often referred to as the Cloud Center of Excellence (Cloud COE), working across project boundaries</p> <p>Collaboration outside the Cloud COE is difficult</p>	<p>Collaboration and adoption is driven across all application teams in a federated fashion</p> <p>They are supported by the Cloud COE, which is a competency center driving consistency, transparency, and innovation across the organization</p>
Secondary considerations	Communication	<p>There are frequent communications top-down within each team</p> <p>Key information and data is shared within the team, but not cross-functionally, for example, mail is shared with individuals, triggering disparate conversations</p>	<p>Key information and data is shared with more people</p> <p>Gradually more consistent and transparent communication is conducted across teams, for example, email is shared on group aliases for transparency and posterity</p>	<p>Consistent and transparent communication is conducted across teams</p> <p>There is a clear cadence for information, with widespread understanding of the rationale for this, for example, factual updates vs. management updates vs. documentation and discussion forum</p>
	Behaviors	<p>Knowledge is “owned” rather than shared freely</p> <p>Collaborative behaviors are recognized and encouraged in pockets, but limited and difficult between IT and the broader organization</p> <p>IT is perceived as a cost center: interactions with the business are transactional “fire and forget” requests</p>	<p>Psychological safety and trust are established, meaning there is a clear balance of empathy and accountability</p> <p>IT is perceived more widely as an enabler: interactions with the business are those of partnership</p>	<p>Error budgets and blameless postmortems are well recognized and part of regular ways of working – spreading beyond IT into the business</p> <p>IT has become the invisible innovator</p>
	People Operations	<p>The IT organization is largely siloed, with multiple handover points</p> <p>New foundational cloud skills are required, focused on cloud security, virtual machine provisioning, procurement, budgeting</p> <p>There is no standard way of measuring success</p>	<p>The IT organization pivots towards a more empowering setup, encouraging adoption of DevOps practices</p> <p>New core cloud skills are required, focused on serverless, microservice, Google Kubernetes Engine and containers, automation</p> <p>Clearly defined objectives and KPIs support the adoption of cloud</p>	<p>The IT organization consists of small and autonomous teams without the traditional role separations</p> <p>New cloud skills are introduced that spill over from IT into the business, for example, data scientist, image recognition, TensorFlow</p> <p>IT has become the invisible innovator</p> <p>Great tech is freely available for people who need it</p>

One size fits no one

While it is tempting to seek a universally “correct” answer – it is important to remember that there is no one-size-fits-all answer on how your organization should design its future people state and manage its transformation journey. Every organization will have its own unique considerations, which will determine its journey to the cloud. Budget constraints, legacy technology solutions, organizational setup, and regulatory requirements – considerations such as these, to name but a few, must all be factored in.

The answer to two questions will influence the impact of change on your people, and their future experience:

- Where do you want to go? (aka, what’s the cloud vision?)
- How do you plan to get there? (aka, what’s the migration approach?)

Where do you want to go?

As a transformation journey progresses through the Cloud Maturity Scale, the relative importance of different epics changes with scale and duration. For example, as tactical changes are first landing, there is greater importance on individual behaviors and teamwork. In contrast, as the cloud journey becomes more transformational, people operations gain more importance. Figure 1 illustrates these relationships.

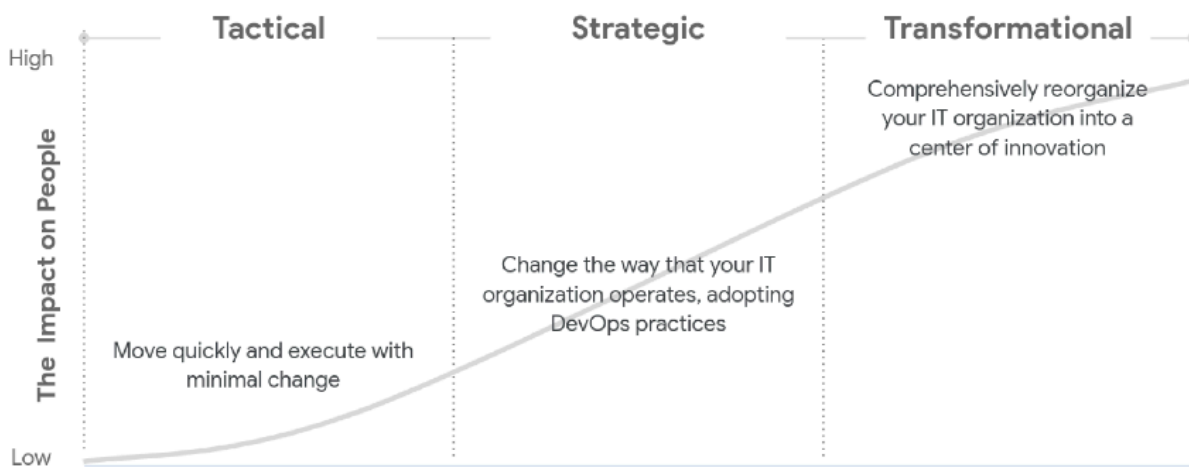


Figure 1: The impact on people at each cloud maturity phase

▶ A typical tale of Company A: “I want to get moving to the cloud quickly”

There is no single “Company A,” but there are many organizations who find themselves in a similar scenario. Their priority is to quickly take advantage of the cloud’s scalability, leaving further work for later. The decision to move a physical data center to a virtual one, for example, represents a quick move to the cloud. This is what’s sometimes known as a “lift and shift” – where the infrastructure is delivered as a service, with minimal change to how the business interacts with IT.

A change such as this requires leadership clarity around the vision, which for the moment is reasonably conservative. Company A doesn’t want to pull up any stakes just yet, while moving to the cloud. So the communication will probably be cascaded from the top, and sponsorship must be focused on establishing trust in the cloud. This strategy will put Company A in a position to accelerate further migration, and build momentum over time.

The impact on the current IT operating model is limited to the infrastructure layer and how it is maintained and consumed. There will be increased need for the capability of infrastructure as a service and for the skills to support that infrastructure, rather than maintaining and managing a physical data center.

The level of change experienced by the rest of the IT organization is reasonably minor, and the business as a whole probably won’t know when the change happens. Table 4 lists the capability and skill changes as a result of moving to the cloud in this way.

Table 4: Anticipated capability impact for companies who want to move to the cloud quickly

Capability	Demand	Impact
Infrastructure Architecture	↑	Increased need for skills to manage the virtual resources on the shared infrastructure (for example, infrastructure as a service or infrastructure as code)
Hardware Maintenance	↓	Reduced need for traditional hardware maintenance capabilities, upgrades, and vendor management because hardware is no longer owned
Hardware Procurement	↓	Reduced focus on data center hardware in the technology procurement category, given the change in the infrastructure layer
Capacity Management	↓	Reduced need for traditional capacity management, as infrastructure resource planning is likely to be subsumed into customer contracts and pricing administration
Security	↗	Potential increase in demand for security to manage access and identity in a cloud environment (shared infrastructure)
Finance / Procurement	↗	Potential increase in demand for the new skills required to manage a different budgeting process (opex-focused) and chargeback models

▶ The ballad of Company B: “I want to be a cloud-first company”

For every Company A who wants to test the waters, there is a “Company B” who wants to use the cloud opportunity to transform the way they do things, becoming what we call a cloud-first organization. From 100-year-old retailers to automobile giants, becoming cloud-first changes the conversation from reducing IT costs to supporting and fueling business growth.

Cloud-first organizations can quickly build and deliver services in response to customer need: they automate more and more IT delivery, becoming lean, service-aligned organizations that focus relentlessly on improvement, resilience, and reliability. This sort of change is known broadly as Site Reliability Engineering.¹⁰

Having a vision like this implies a greater fundamental change in the way the IT organization operates. Delivery changes to become more agile, teams change to become more collaborative, and IT changes how it interacts with the business to become more customer focused. And all of this has an impact on the way people get things done.

New skills will be required — like container management using Google Kubernetes Engine (GKE) — which may mean upskilling current employees or hiring additional people with these skill sets. Table 5 lists the capability and skill changes as a result of becoming a cloud-first company.

¹⁰ If you want to read more about how we do this at Google, see [How Google Runs Production Systems](#).

Table 5: Anticipated capability impact for companies who want to be cloud-first

Capability	Demand	Impact
Microservice Architecture	↑	Increased ability to segment applications into microservices, which significantly increases the overall agility and maintainability of applications
Site Reliability Engineering	↑	Increased demand on those responsible for the availability, latency, performance, efficiency, change management, monitoring, emergency response, and capacity planning of their service(s)
DevOps	↑	Greater demand on the ability to build and run applications in an agile fashion and to set up structured communications among teams to solve a problem together, rather than following the traditional build/run divisions
Automation	↑	Enhanced autoscaling, infrastructure as a service, continuous integration and delivery, and automated monitoring and reporting, to eliminate human errors and save time
Containers and Google Kubernetes Engine	↑	Increased ability to pack each part (for example, application or process) in its own container, facilitating transparency and resource isolation. GKE provides the foundation of a cloud-native application
Serverless Computing	↑	Greater capacity to build and run applications and services without being constrained by traditional server concerns
AI & Machine Learning	↑	Greater demand for – and opportunity to use – the skills to leverage AI and machine learning technologies to optimize applications, provide insight in hours, and support innovation
Agile Project Management	↑	Increased demand for agile delivery methodology skills until it becomes a core competency across the organization, to maximize agility and accelerate business velocity
Waterfall Project Management	↓	Reduced demand for a traditional waterfall delivery approach, as increased rates of cloud adoption support increasing agility
Incident Management	↓	Reduced demand for traditional platform and hardware support, which moves to the provider, with in-house capability more focused on joint incident detection

Keeping development and operations close together is relatively easy in an organization of 20 or 30 people. But if you need to scale this behavior to 200, or 2000, then you're going to need a more formal scaling mechanism. In contrast to the top-down communication in Company A, those leading the change for Company B must spend more time building the lightweight – but strong – structures that recognize and encourage the right behaviors.

Communication should feel much more bottom-up and middle-out than top-down.

▶ Company A or Company B?

Both the scenarios described here are inspired by real customers of Google Cloud. And both the desired end states are feasible and valid – driven by respective sets of business priorities, implementation complexity, and a myriad of other factors.

But each requires its own roadmap.

There are many paths to successful organizational change: the process is seldom linear

How do you plan to get there?

Our natural tendency is to characterize change as a linear process — a straightforward progression from start to finish. However, linearity is one of the pervasive myths about change. In fact, there are many different paths to successful organizational change.¹¹ The exact impact on people will depend on the specific workloads being migrated, but based on our own migration experience, on our work with customers, and on successful collaborations with partners, we’ve identified five common change paths that organizations tend to take. Figure 2 maps these out across the three cloud maturity phases.

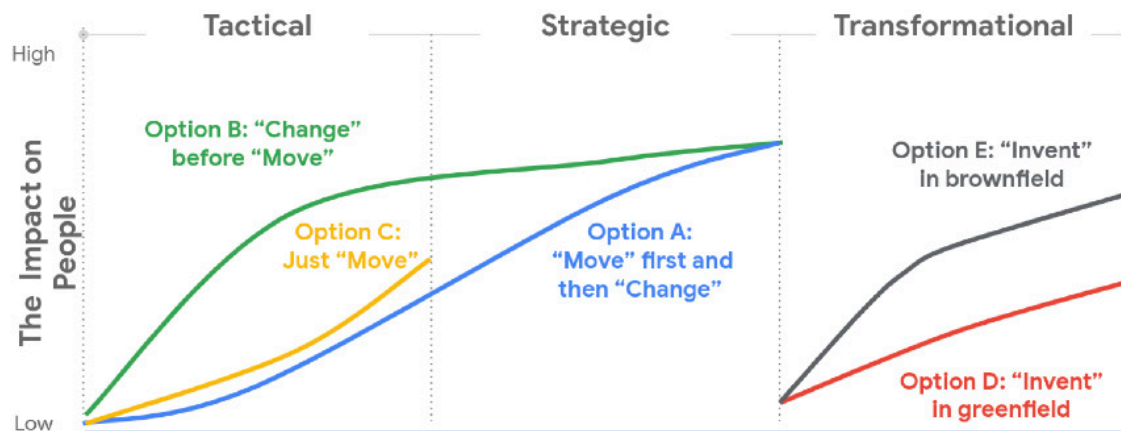


Figure 2: Five common change paths

▶ Option A: "Move" first and then "Change"

The enterprise that takes this path is taking a reasonably conservative approach to adopting the cloud to modernize applications and drive growth. Change is relatively slow but tends to gather momentum over time.

This path typically starts with a "lift and shift" approach for selected applications, minimizing changes to ways of working. Once migrated, the applications will be rearchitected and optimized in the cloud. At this tipping point, new ways of working become more feasible for more people, which will require increased change management to realize, sustain, and celebrate the benefits of moving to the cloud as these changes are unlocked over time.

¹¹ There's an increasing recognition of the nonlinearity of change. This [data-led analysis](#) of the different paths to successful change is one that we like.

▶ Option B: “Change” before “Move”

An enterprise on this journey is taking a more aggressive approach to reach its end goal. This path typically starts with rearchitecting applications first, to make them more cloud-ready before migrating to the cloud.

This application modernization requires new skills (see [Table 5](#)) and ways of working if it is to be successful. For example, while the cloud can enable increased responsiveness to customer needs, this cannot be achieved through traditional waterfall delivery; rather, a DevOps-led approach supported by automation needs to be in place.

The cloud can also make experimentation easier, cheaper, and less risky. However, this won't happen in a culture that does not reward the behaviors of innovation and learning, testing, and iterating in order to “fail well.”

Taking this sort of approach requires more change management up front, with a more immediate effort to launch and manage the change. Central to this approach is developing a clear vision that helps all stakeholders understand not only the direction of travel, but also why this change is important and what to do differently to be successful.

▶ Option C: Just “Move”

Building cloud-native applications is trendy, but that doesn't mean it's applicable to all scenarios. For some use cases, it's sufficient to leverage the cloud just to modernize the infrastructure layer, as with these examples:

- **Disaster recovery.** With a robust and scalable infrastructure layer, organizations can consolidate their disparate disaster recovery systems into one virtualized environment for disaster recovery.
- **Data center.** With fast, secure data migration to the cloud, organizations can decommission the on-premises data center and move towards a virtual environment.

- **Big data.** With cloud storage providing the basis for a single source of truth, organizations can manage, store, and analyze big data both in the form of structured data (that is, databases) and unstructured data (that is, social media, images, web, email, and IoT sensors).

There is typically less change to the existing application workflow and to the ways of working, and so the complexity of change is low. The focus of the change is on those who are operating and consuming the infrastructure layer (see [Table 4](#)).

▶ Option D: “Invent” in greenfield

With a greenfield strategy, a whole new infrastructure and application is built in the cloud. This approach really only applies when the organization needs to develop new products or offerings (for example, a new ecommerce platform or digital banking).

The greenfield path requires agility, access to a diverse development skill set (see [Table 5](#)), and generous organizational tailwinds (especially executive sponsorship) to make its vision a scalable reality. Typically, this is the approach we see when customers start up a Cloud Center of Excellence¹² — building a small team from a diverse set of professional backgrounds, a team who can experiment and document the new ways of working, scaling, and advocating best practices.

This option can potentially bring an interesting tension between how much of the organization is “new” and how those parts interact with the “old.” This tension can bring technical pain, governance pain, and even procurement pain (for example, paying on consumption vs. traditional standards). Tension like this can lead to the feeling of a two-tier IT organization, where some people get the agility of the cloud, while others don’t. That experience can be painful, but it also provides a very visible incentive for teams to migrate to the cloud, and to devise more agile ways of working.

¹² A [Cloud Center of Excellence](#) is one of the ways enterprises can get to the cloud faster, and maintain stronger alignment between business strategy and cloud investment. This whitepaper explores the key characteristics of a Cloud COE.

▶ Option E: “Invent” in brownfield

A brownfield strategy, on the other hand, is to invent a new application in the cloud environment, after which the existing legacy application will be retired. While the redundancy can be comforting — especially for mission-critical applications — this path can be dogged by the financial implication of dual running and so it is often the most expensive choice.

▶ Lots of choice: Is there an answer?

The pace of change, and the change management required, is driven by the end destination, and the choice about how you want to get there. These are fundamental choices, but we think there are some things to keep in mind that can help with these decisions.

Ten things we've learned along the way

The table stakes in your journey to the cloud are knowing where you want to go (that is, your cloud vision) and having a sense of how you want to get there (that is, your migration approach). The Google Cloud Adoption Framework provides a structured way of thinking about these, and the evolution articulated in [Table 3](#) provides focus on the areas to help your people embrace the change.

On your journey, there will be many specific nuances and unique constraints, though there are some typical scenarios and migration approaches that can be employed to shape your approach to change. Based on lessons we've learned along our own journey, as well as from our work with customers, there is also a set of considerations that we think are important to make your journey a successful one.

- 1. Focus on the people, and all else will follow.** It is worth investing time to paint a clear picture for those who will follow on in this project later – but also to make sure that this cloud adoption vision translates into department KPIs. This vision ensures that the change approach is set up to win the hearts and minds of those involved.
- 2. Measure, measure, measure – so you'll know if you've been successful.** Be up front about the metrics you'll use to measure your success along the way. Set goals and communicate them to hold yourself accountable.
- 3. Be clear about the critical capabilities you will need in the future, and where you'll get them – either internally or through your partner(s).** Product- or service-driven agile development, Site Reliability Engineering, and cloud-enabling service capabilities are the basics for scalable, agile cloud enablement. Make sure you're confident these are available.
- 4. Fast is better than slow. But finding your balance between central control and agility can be hard.** Agility is achieved through increasingly decentralizing capabilities, balanced with a central foundation. There isn't a "universal truth" for hitting this balance: automation can support such balance¹³ but there *will* be disagreements about it, which you will need to navigate.
- 5. Sweat the basics: people will look to you for guidance.** More people will be interested than you think. Map out who they are and what they've got to gain, and establish champions to promote and support the cloud transformation.¹⁴

¹³ This is one of the focus areas of the Scale theme in the [Google Cloud Adoption Framework](#) – and the Infrastructure As Code epic in particular.

¹⁴ For a good overview of how to prepare end users for the move to cloud, check out this [blog post](#).

6. **Ensure that there is a “nontech” learning plan available.** Not everyone will feel comfortable with the future picture of collaboration, innovation, and agility. Give people the opportunity to develop and practice these new skills, before they need to use them for real.
7. **Start thinking about the longer-term tech skills, now.** Whether you’re choosing to hire in the skills you’ll need or to build them up in-house, there will be some cloud, AI, and machine learning skills in short supply. Know how you’re going to fill those gaps.
8. **Appeal to self-interest and growth.** Any classical economist will tell you that a shortage drives up prices. Careers and salaries for cloud skills are both on the rise.¹⁵ People will want to ride this wave. As you engage and convince people to develop their cloud skills, frame the future opportunity for them.
9. **Things won’t be perfect the first time.** The journey itself is an opportunity to role-model the future. Give people the opportunity to reflect and share their suggestions about how to improve. Retrospectives can be your best friend.
10. **Share what you learn along the way, both the positive and the negative.** You will learn a lot, and this experience will provide valuable insight that will benefit others. Share with generosity and scale the lessons you may have had to learn the hard way.

These ten statements *aren’t* a manifesto. They’re not rules. You might even disagree with them — and we would love to hear about that.

They *are* reflections about what we think is important when moving to the cloud, based both on working with our customers and partners and on what we’ve learned inside Google itself. We’ve distilled, tinkered with, and baked these lessons learned into an approach. If you’re interested, please [get in touch](#).

¹⁵ See, for example, these [GCP job stats](#), showing that the median salary increase is between 12% and 20% in the UK, with job adverts doubling in the 6 months to February 2019, and [The Most In-Demand Hard and Soft Skills of 2019](#), in which LinkedIn rates cloud computing and AI as the top two in-demand skills for 2019.

Find out more or get in touch

If you need help thinking through some of the questions explored here, get in touch with your Google Cloud representative or [contact us](#).

If you would like to find out more about the overarching Google Cloud Adoption Framework, take a look at [our whitepaper](#) on the subject.

If you would like more detail about setting up a Cloud Center of Excellence, you can find our perspective in [this whitepaper](#).