Quick Answer: How Do I Overcome a Lack of Cloud Skills in My Organization?

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Executive leaders often want cloud computing adoption to proceed at a faster pace than the organization can staff internally. Managed services are only one possible answer to this need.

Quick Answer

How do I overcome a lack of cloud skills in my organization?

- **Structure for success**: Support, monitor and measure the progress of the management team against cloud skills initiatives, which are a crucial part of successful cloud strategy execution. Try to avoid demanding that a given role be skilled in everything; split roles if necessary in order to have achievable hiring goals. For example, cloud projects need to be managed through a program/portfolio management approach. Therefore the organization needs a program management office (PMO) that works with the cloud center of excellence (CCOE) to effectively drive this approach, rather than demanding that cloud architects also possess project management skills.

- **Combine multiple approaches**: Most organizations will combine training, hiring, staff augmentation and outsourcing throughout their cloud journey, emphasizing different approaches at different points in their journey. This also ensures that existing staff gain access to experts who can seed best practices and lead by example. Highlighting staff that already possess such expertise is also important, raising the importance of mentoring and communities of practice. (See Unlocking Mentoring for Development Impact and Communities of Practice Unlock the Latent Expertise of Your Workforce.)
- **Train**: Train your existing staff on new cloud skills. This, however, takes time, and becoming truly skilled requires not only training, but also relationship-based learning from experts and experiential learning that teaches what cannot be acquired through “book learning” and lab projects (see Agile Learning: Use Progressive Layering of Skills to Upskill and Develop Employees). More technical staff members need to be “versatilists,” with a skill set that spans different IT domains. Technical leaders of cloud initiatives should ideally be strategic thinkers with business acumen and a big-picture perspective, team players who can communicate with diverse audiences, and agile in thought and action. Not all existing staff will be successful in acquiring the new technical skills — and more will fail to have the personality traits and mindset necessary.

- **Hire**: Permanently hire new employees with the necessary skills. The availability of people with cloud skills varies significantly by geographic area. Because many organizations are seeking employees with these skills, they frequently command higher salaries than is typical for their years of experience. Organizations are increasingly seeking remote employees in lower-cost cities, further straining skills availability. New employees will take time to learn the business and IT environment, but the staffing budget is sometimes best spent on a handful of key experienced hires who can help accelerate cloud computing initiatives.

- **Augment**: Bring on contractors from a staffing agency, or hire independent contractors. This can be a useful way to acquire junior and mid-level people to perform cloud-related tasks and staff cloud projects. Senior-level contractors can be excellent partners to comparable-level employees who generally possess the right skill set but lack sufficient cloud experience. However, you should avoid allowing senior-level contractors to make strategy or policy decisions. For organizations that routinely use primarily contract staff (such as U.S. federal government agencies), rotating out existing contractors for new ones with cloud skills can be one of the swiftest and most effective ways to acquire the necessary skills.

- **Outsource**: Bring in outside assistance in the form of an external service provider (ESP) — usually a cloud managed service provider (MSP), third-party consultancy that offers professional services (such as an IT outsourcing or system integrator [SI]), value-added reseller (VAR), or a cloud provider’s own professional services organization. You can take a project-based approach, or a medium-to-long-term managed services approach. Be selective; large differences exist in ESP skills and experience. Low-quality assistance can significantly damage the likelihood of satisfactory cloud outcomes.
Executive leaders can map cloud skills gap deficiencies through the use of Gartner’s IT Talent Quadrant (see IT Skills Roadmap Workshop Tool: Roadmap Your IT Skills of the Future). An example quadrant is shown in Figure 1, depicting the needs of an organization that is open to outsourcing cloud operations.

### Figure 1. Example IT Talent Quadrant for Cloud Skills

<table>
<thead>
<tr>
<th>Importance to IT Strategic Objectives 2021-2026</th>
<th>Core</th>
<th>Critical Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Important skills that should be sustained</td>
<td>Priority skills needed for the next two to five years</td>
</tr>
<tr>
<td></td>
<td>Cloud program management</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Accessible skills that may decline over the next one to three years</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Legacy</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>Niche</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>Promising skills that need to be supported and grown</td>
<td></td>
</tr>
</tbody>
</table>

**Note:**
- Importance to IT Strategic Objectives 2021-2026: Arrange skills on the basis of how important they are for you to achieve your IT goals for the next two to five years.
- IT Skills Gap: Identify skills where you expect the skills gap to be the highest based on the current level of skills in the organization. A ‘high’ IT skills gap implies a greater difficulty in hiring the skill for you.

Executive leaders frequently consult Gartner for advice in overcoming particular "skills gap" challenges, illustrated in Figure 2.
Gartner's recommendations for overcoming each of these common challenges are as follows:

- **Creating a cloud strategy**: External assistance can be useful in assessing your cloud readiness, helping you understand how to structure and think through a cloud strategy in a “workshop” approach, or providing technical information and feedback. However, you should not entirely rely on an external party or contractor to craft your cloud strategy. Cloud strategies are not interchangeable, and external reliance increases the probability that the cloud strategy is not well-aligned to your business or IT strategy, or that it will be overly aligned to the interests of the external party or to a particular vendor.
Appointing a chief cloud architect to lead a cloud center of excellence: Effective CCOE leaders need a combination of deep knowledge of the business and IT environment, respect from technical and business leadership, technical acumen, and cloud skills. Therefore, the chief cloud architect should generally be an existing senior-level enterprise architect who receives an internal promotion into that role. If the architect candidate does not have sufficient cloud expertise or experience, it is highly effective to pair that individual with a skilled cloud architect on a six-month to one-year contract. That contractor can provide the architect with the benefit of their experience and knowledge, supplying that person with the expertise and advice needed to successfully implement a CCOE. (See How to Deploy a Cloud Center of Excellence and The Cloud Architect: Skills Guidance for Modern Technical Professionals for hiring guidance.)

Conducting a cloud migration: Significant migrations to cloud IaaS or PaaS — those that exceed 100 applications — are best done with the help of an ESP that has a systematic and automated “migration factory” approach. This is the fastest, most efficient, least risky and lowest-cost way to achieve such migrations. Competent migration providers can methodically assess your application portfolio and infrastructure, plan and project-manage a migration, and competently execute the migration itself. In the process, most will help you modernize, cloud-optimize and automate — without needing to refactor applications. (See Replace Assumptions With Accurate Estimates Before Migrating to Public Cloud for details.)

Running cloud operations: In the 2020 Gartner Cloud End-User Buying Behavior Survey, 65% of respondents indicated that they worked with a cloud MSP or incumbent outsourcing provider to overcome challenges in managing their cloud infrastructure. A high-quality provider of cloud-managed services will significantly leverage automation and cloud-native capabilities to drive greater efficiency and thus lower costs, and should bring a preexisting cloud automation platform along with best-practice orchestration templates. Unless you expect to outsource cloud operations over the long term, you should contractually require the provider to transfer knowledge and skills to your employees. This transfer must occur gradually, over a multimonth or even multiyear period. It is insufficient to do a “handoff” at the end of the contract. The organization needs to shift into a new mode of working as well as gain cloud competence, and this is best done collaboratively, with the external experts handing over responsibilities on a gradual basis. (See Choose the Best Cloud Operations Delivery Model for Your Organization’s Needs for details.)
Executive leaders must also keep in mind that technical skills are not the only skills required for the organization to successfully adopt cloud computing. Business leaders must understand enough about cloud computing to be able to envision new digital business possibilities that are enabled by the cloud. Members of the finance, sourcing, legal and compliance teams must understand the nature of cloud services and how they impact their respective areas in ways that demand new skills in financial operations, contracting and governance oversight. In most cases, these skills can be addressed through training, potentially coupled with staff augmentation to seed the team with cloud experience.

**Recommended by the Authors**

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*Solution Path for Transforming Your I&O Work and Career Strategies*

*The Cloud Infrastructure and Platform Services Skills I&O Teams Require for the Future*

*New Roles and Skills for I&O Professionals in DevOps*

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