

The step-by-step guide to bridging the IT skills gap from within:

Part 1

Defining the skills gap and building a Cloud Foundation Team



Welcome cloud innovators

Organizations are growing increasingly aware of the **IT skills gap**—the expanding separation between even the most fundamental cloud-based technologies and the ability of internal IT specialists to take full advantage of them. Yet, surprisingly few businesses have fully acknowledged the severity of the problem.

This AWS eBook Series provides guidance on overcoming the skills gap—quickly, economically, and holistically. In this first of three parts, we'll begin by defining what characterizes the skills gap, how it formed, and why it is proving so difficult to close. Then we'll focus on sparking transformation with your Cloud Foundation Team. Welcome to the future of your workplace.

“By 2020, 75% of organizations will experience visible business disruptions due to [infrastructure and operations] skills gaps.”

—Gartner, Inc., 2018¹

¹<https://www.gartner.com/en/newsroom/press-releases/2018-03-27-gartner-says-lando-skills-gaps-will-cause-75-percent-of-organizations-to-experience-visible-business-disruptions-by-2020>



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Defining the skills gap

[Forbes](#) defines a **skills gap** as the difference between what companies need or want their employees to do and what employees have the ability to do. Not limited to IT experience, a skills gap can apply to any role: hard skills like sales, business, finance, and coding, as well as soft skills like interpersonal communication and time management. Perhaps most concerning for businesses today is that the gap continues to expand with rising demand and inadequate supply. As proof, according to a [World Economic Forum report](#), 133 million new roles may emerge globally by the year 2022.²

By turning to cloud providers and managed IT services, many organizations are solving one set of challenges while creating another: the need for newly qualified technology experts. These experts must know how to work effectively with cloud and IT service providers to ensure that new capabilities deliver business value and bottom-line results. It's not enough to hire practitioners versed only in installing servers and maintaining the stack—you need the people who can spin up compute infrastructure in the cloud on an as-needed basis, directly from code in the application. The necessary skills do not stop there, however, as this new reality is applicable across your entire team.

A logical first step would be to evaluate the competencies of your existing team, but unfortunately, most companies lack an accurate inventory of the available skills of their IT workforces¹. If they were to make such an assessment, these businesses would recognize their technical skills gaps and could start to develop strategies to bridge them.

IT and business converge

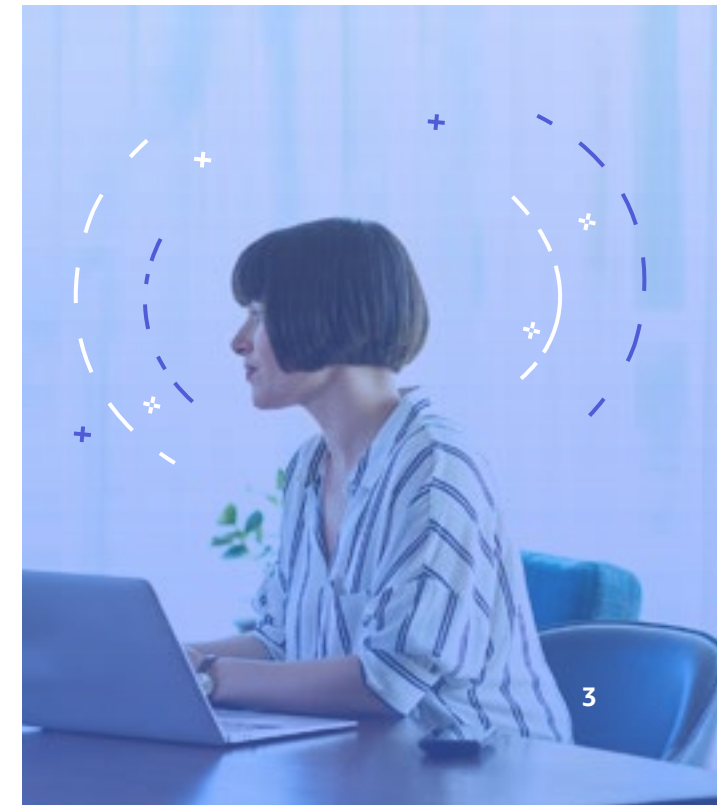
"What made I&O (infrastructure and operations) leaders successful in the past is not what will make them thrive in the future," says Hank Marquis, research director at Gartner. "Instead of focusing on the 'what' of I&O jobs—such as technical knowledge, education and training—I&O leaders need to shift their focus to the 'how'—the behavioral competencies required."

Modern IT workers must leave the sheltered safety of server rooms and data centers and become more integrated with the larger business. The need for today's IT to develop so-called "soft skills" is just as great—if not greater—than the need for them to improve their technical prowess. They'll need to advance their skills in communication, critical thinking, leadership, teamwork, and even sales and customer service. For tomorrow's businesses to be successful, IT must deliver digital value at scale,

helping everyone—from others in tech-related departments to executives and beyond—use new technologies to further business initiatives and results.

In the age of software and enhanced customer experiences, every IT professional must learn how to lead. Likewise, every executive must become better at using data to find deeper insights and make smarter decisions. To make these changes stick, IT must have more ownership and support of the entire business.

² <https://www.forbes.com/sites/lizryan/2016/08/18/the-most-dangerous-skills-gap-of-all/#792c523f42d3>



Recruiting vs. training

You may be wondering if all that holistic internal change is really necessary. Isn't this a problem best solved by recruiting, with businesses simply hiring new experts and letting them handle the transition?

Many companies are trying to do just that, but they're hitting a wall. There are far more job openings for highly skilled IT professionals than there are qualified candidates to fill them.³ Finding the right people—and winning the resulting bidding war to hire them—is expensive and time-consuming. Even those businesses that are able to commit the cash and resources required to land these “big fish” are likely to encounter a good deal of internal resistance—an issue we'll explore more in-depth later.

Most businesses are left with no other choice than to upskill their existing talent. Some organizations are attempting a “sink or swim” approach, requiring their existing staff to perform work outside their skill sets and without the proper training. They are asking IT to do more with less. And while this may generate some positive results, it ultimately leads to overworked, overstressed IT departments that suffer from high turnover.

Regardless of these challenges, the people you have today are the people you need for tomorrow. They may not currently be experts of modern technology per se, but they are experts at the science of technology itself. And that makes them supremely qualified amateurs who can be trained to fulfill the needs of the future.

So, the essential question is not “How will we skill up?” but rather “What's the most economical and efficient way to turn our qualified amateurs into practiced experts?” This eBook will endeavor to answer that question. And while some of the changes you'll make may be difficult, they can happen a lot more naturally than you might think.

Before we get into the steps it will require to transform your processes, let's jump ahead and see how, once the correct model is in place, your teams can drive success—naturally, organically, and across the entire organization.

³ <https://www.gartner.com/en/newsroom/press-releases/2018-03-27-gartner-says-lando-skills-gaps-will-cause-75-percent-of-organizations-to-experience-visible-business-disruptions-by-2020>



2

Sparking organic transformation with a Cloud Foundation Team

Once the necessary process changes are in place (outlined later in this series), and you've obtained visible and active buy-in across the executive stakeholders, you'll be ready to begin your skills-gap transformation in earnest. First step: creating a Cloud Foundation Team. This is your all-important "first team," responsible for the success of your very first cloud project.

Your Cloud Foundation Team will become the core of cloud competency, extending their knowledge and experience into the rest of your business and helping to transform on-premises engineers and developers into veritable cloud professionals.

With this process in place, learning spreads purposefully, reaching beyond IT and into the lives and work habits of your executives. This is where leveraging members of your current teams as trainers and evangelists—rather than hiring new recruits—pays meaningful dividends. Your internal engineers possess a thorough understanding of the unique processes and needs of your business. They also have existing relationships with other employees and partners, and those relationships can help curb resistance, increasing adoption and allowing everyone to learn in their own ways.

How do you start your Cloud Enablement Engine?

Think big, but start small. **Launch a Cloud Foundation Team** and a small number of Development teams to start the flywheel. Scale as the customer's cloud transformation accelerates and expands.



Remember, the people you have are the people you need. If you empower your foundation team in the right ways, recruiting needs will be minimal—54% of businesses say they are addressing the skills gap by providing additional training and development⁴. A full 25% of working Americans don't believe they have the technical skills necessary to perform their jobs⁵—suggesting that there's plenty of room for growth within existing workforces.

⁴ [https://go.manpowergroup.com/hubfs/TalentShortage%202018%20\(Global\)%20Assets/PDFs/MG_TalentShortage2018_lo%206_25_18_FINAL.pdf](https://go.manpowergroup.com/hubfs/TalentShortage%202018%20(Global)%20Assets/PDFs/MG_TalentShortage2018_lo%206_25_18_FINAL.pdf)

⁵ https://www.docebo.com/wp-content/uploads/2019/06/Tech-Skills-Survey-Results_USUK.pdf

The Cloud Foundation Team roster

Ready to build your Cloud Foundation Team? Start by identifying a simple cloud-related project for the team to complete. Then choose talented individuals to join the team and to fulfill dedicated cross-functional critical positions: the **product owner**, the financial analyst, the **OCM specialist**, some **cloud architects**, a couple of **engineers**, and a relevant **specialist**.

You may also want to recruit for two optional positions, but let's run through the mandatories first.

- The **product owner** is essentially your team leader and will be singularly accountable for the Cloud Enablement Engine's vision and its viability from a business perspective.
- Your **financial analyst** is responsible for budgeting, tracking, and financial reporting. He or she will push for maximum cost optimization, identifying and justifying the financial desirability/profitability of the project and any organizational changes along the way.
- The **OCM specialist** enhances the move to the cloud through workforce preparedness, communications training, and career management planning.
- Your all-important **cloud architects** translate customer, business, and governance requirements into product architectures. They represent platform

operations, ensuring security as the project comes to life. Depending on the project and/or your personnel, it might make sense to select a single lead architect, divide the team into some type of hierarchy (senior architect, junior architect, etc.), or simply let them all operate as equals.

- The **engineers** are responsible for across-the-platform operations and security domains. These team members work closely with the architects to ensure that what they design can actually be built and that what is built is functionally and operationally sustainable.
- Lastly, there are two optional positions you may want to add to your Cloud Foundation Team. These may be separate individuals, or you may find it preferable to assign these roles to members you've already recruited.
 - o The **engineering manager** is accountable for team execution, technical delivery, quality, team member performance, and development.
 - o As the overseer of HR responsibilities, the **scrum master** acts as the lead encourager in the metaphorical team "scrum" (or "huddle," for you American football fans), facilitating agile processes and encouraging forward progress toward business results.

Failure isn't fatal—it's fundamental

Bridging the skills gap won't happen overnight. It may be helpful to consider that the success or failure of your Cloud Foundation Team's first project is secondary to the fact that you're assembled and you're doing it. Success is preferable, obviously, but what's really important is for the team to document its learnings and keep trying new things.

Once the team gains a basic level of proficiency, you can challenge it with increasingly complex projects. From there, you'll split the product team in two, assigning additional members to the new teams. Once these teams are successful, they'll split and add more members as well—think of it as cellular mitosis but for I&O training and personnel. Before you know it, your Cloud Enablement Engine will be roaring, with knowledge and capabilities branching into every department and empowering every employee.

Exciting, right? But, before any of this can happen, you'll need to start laying the organizational groundwork that allows your teams to succeed (even when they fail).

Next in Part 2:

Shift to a product-based model and position your people for success

Ready for the next step? Learn how to transition from the inefficiency of "activity-based" models so your teams can focus on customer-centric innovation and modernization. Remember, you needn't reshape your company to move it forward. In fact, the transformation from cloud zero to cloud expert starts with just a single spark.



Read Part 2 of this AWS eBook Series to learn how to move from an inefficient, activity-based model.

[Read Part 2 now »](#)