



Staying Competitive by Investing in Cloud Skills

Perspectives from AWS Staff

As more and more enterprise executives embrace migration to the cloud, some wonder if their current IT employee base is holding them back from realizing its full potential.

After all, the cloud involves a rather different set of practices and technologies, and making the most of the cloud through DevOps, infrastructure as code, automated security and compliance guardrails, and so on requires a very different mindset and culture. Looking at the enterprise's current employees, an executive may conclude that these skills are lacking.

Mark Schwartz, an AWS Enterprise Strategist, finds that belief often rings true. He notes, "Well, of course they are! Current employees are unlikely to have cloud skills simply because the company has selected and trained them to support the company's earlier, non-cloud technical needs! Working at this company, they most likely haven't had a chance to work in the cloud, let alone demonstrate proficiency."

The data supports this belief. [The 2018 Global Knowledge IT Skills and Salary Report](#) shows that two-thirds of IT decision-makers are reporting a gap between their team's skill levels and the knowledge required to achieve organizational objectives. IDC research predicts this gap will continue, and they estimate that 30 percent of global IT jobs will be left open by 2022.¹

But, having this gap is not an insurmountable problem. Stephen Orban, an AWS General Manager, says in his blog post "[You Already Have the People You Need to Succeed in the Cloud](#)," that employees already have invaluable knowledge about the company, its products, and its customers. Furthermore, Orban says, "I've yet to come across a use case where someone with the appropriate skills and a can-do attitude couldn't find a place for themselves in the cloud." The fact is that technology employees tend to be fast, flexible, eager learners.

The real question is how to take advantage of their wealth of knowledge as company insiders by helping them leverage their existing technical skills to learn the critical new ones.

¹ IDC FutureScape: Worldwide CIO Agenda 2019 Predictions IDC FutureScape (Doc #US44390218 / Oct 31, 2018)

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The first step to addressing the skills gap

It can be expensive and time consuming to recruit and hire new employees to fill cloud-related roles.

Maureen Lonergan, Director of AWS Training and Certification, notes that "most businesses already have the staff and support they need to transition from traditional IT to the cloud, but they need to help those employees learn to apply the fundamental IT skills and institutional knowledge they already have to new cloud roles."

She adds that "training can help you build internal buy-in, get your staff speaking the same language, and help your teams accomplish business objectives more efficiently."

Whether you are just getting started with cloud or looking into a cloud-first strategy, educating your staff should be part of your plan in 2019.

An IDC whitepaper, "[Train to Accelerate Your Cloud Strategy](#)," demonstrates that training enables organizations to accelerate cloud adoption, achieve business objectives sooner, and overcome concerns related to cloud adoption. The research shows that comprehensively trained organizations are 80 percent faster to adopt cloud, 2.7 times more likely to realize that the cloud can help jump-start innovation, 3.8 times more likely to meet cloud ROI requirements, and 4.4 times more likely to overcome operational and performance concerns.

According to Lonergan, training can also help you save time and money. Not only will you be able to avoid hiring new staff to fill cloud-related roles, but your employee retention may improve.

Research from Global Knowledge shows that training is positively associated with job security and satisfaction. Trained individuals are more likely to report feeling fully satisfied and more secure in their jobs.





Leverage AWS Training to educate your organization

AWS Digital Training can help your organization build cloud skills with a range of training topics, modalities, and class levels.

It offers hundreds of on-demand digital courses that help your team build new cloud skills and learn about the latest services when and where it's convenient. Your team can get started quickly with short introductions, then dive deeper with advanced courses.

To get started, Lonergan suggests your team take AWS Cloud Practitioner Essentials for an overview of cloud concepts and AWS services, security, architecture, pricing, and support. And if your team is looking to learn about the latest from AWS, our AWS re:Invent 2018 New Services curriculum includes introductory training material.

If you are looking to dive deeper, AWS Classroom Training offers in-person and virtual training from instructors who teach your team in-demand cloud skills in a hands-on learning environment. Lonergan explains "that if you are interested in classroom training, we can work directly with your organization on an education strategy."

We evaluate your needs and build a customized learning path, so your team can learn the skills they need to accomplish your specific business goals.

Also, private onsite training gives your team the opportunity to learn from an instructor who comes directly to your location and who is familiar with your AWS use cases. Alternatively, virtual classroom training for private engagements provides a flexible and cost-effective way to easily strengthen team's skills.

Contact the [AWS Training team](#) to learn more about private training, or search for a public class near you at [AWS.training](#).

Scale knowledge and best practices

Training can help you go far, but by itself it is not enough. Once you have built up a core of expertise within your enterprise, how can you scale that knowledge? Some organizations begin by pooling their experts into Cloud Centers of Excellence (CCOE), where they can implement new ways of working, such as DevOps models, that introduce automated testing, deployment scripting, infrastructure provisioning, continuous integration, etc.



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But then, how do you leverage those expert skills to build enterprise-wide competency?

"Every enterprise is different, but there is a set of related techniques that we have seen work well," says Schwartz.

"Experiential rather than classroom-based, these techniques involve pairing people who have the skills with people who want to develop the skills. Constant exposure to good practices not only teaches the critical skills, but also gives the learner exposure to people who consider it perfectly normal to work in the new paradigm—in other words, these techniques help with cultural change as well."

Schwartz highlights several methods for sharing skills in a recent blog:

- "*Pair programming*" - a tactic common in the Extreme Programming community and elsewhere in the Agile world that pairs a skilled team with a nonskilled one to promote learning.
- A "*dojo approach*" developed by Target, that employs a Center of Excellence (or dojo) to teach skills one team at a time.
- Finally, a "*mitosis technique*," implemented at Capital One, which splits skilled teams, forming two new teams filled with skilled and nonskilled members.



All of these techniques are organic rather than centralized or hierarchical, opening new roads for skilled practitioners to spread their knowledge through hands on learning. This is important, because centrally controlled learning will run into problems of scale. What's more, these programs let the people with skills feel good about their abilities and proud to be spreading them—and perhaps vested in the success of the people they teach.

Getting started

In the quest to stay competitive, cloud skills may be the most important investment you make. But like any cloud initiative, upskilling your organization should start with ensuring your current employees already understand your business, your company's culture, and influence structure. In the transformed world, that is arguably the *most* important set of skills. And, with that foundation in place, acquiring cloud skills becomes a much simpler proposition—one that builds on what your people already know, with mechanisms in place to share and pass on that knowledge.