BRIDGING THE GAP

Strategies for Cultivating New IT Skills and Transforming to a Services Model
One of the most common roadblocks IT leaders encounter as they modernize their data centers to align more closely with business goals is a gap in the skills and knowledge required for moving to cloud environments and IT-as-a-service models. According to Windows IT Pro’s 2015 IT Skills & Salary Report, one in five IT decision-makers is having difficulty finding skilled talent for cloud initiatives.

First, enterprise demand for IT services has grown so quickly that it is outpacing supply. Traditional enterprise IT operating models are not agile or flexible enough to match the speed enterprise customers have grown accustomed to with consumer IT services. Meeting consumer-level expectations requires a vast operational shift, toward a services and consumption model that often involves a hybrid infrastructure strategy. The new model represents a significant departure from traditional IT operations.

Second, the shift to agile IT systems and processes requires a vastly different set of skills than IT departments have traditionally favored such as open-source, configuration management, cloud architecture, DevOps, and the ability to align with business initiatives. A 2014 EMC study shows that 84 percent of IT managers believe in-house cloud architecture and design skills are critical, but only 14 percent believe they have the necessary skills in house.

But solving the problem isn’t as simple as hiring new people with skills for the new era of IT. According to McKinsey, by 2018, supply of IT professionals with the requisite skills will only meet 50 to 60 percent of enterprise demand. So how can IT teams learn new technologies, modernize their infrastructures and implement new operating models to meet enterprise demand in the cloud era? Here are four strategies that can help bridge the gap.
I. Understanding the Shift

To fill a formidable skills gap, many enterprises are turning inward, reassigning existing employees and investing heavily in training and certification as new requirements emerge. “We’re starting to see this shift where central IT is having more of an impact around the decision-making process of where applications and workloads are running, and it’s shifting the emphasis on what skills IT organizations need to develop,” says Scott Peyser, who is vice president of global services at EMC. The company offers a variety of IT transformation services, many of which are based on EMC’s own IT department’s transition to a services model in 2014. “It’s a shift from siloed skills to a more horizontal skill-set that allows IT to engage with the business more proactively and think across the continuum of infrastructure to build a services strategy,” Peyser explains.

The shift can be tied in part to the rise of converged infrastructure (CI), which gives IT a way to quickly implement pre-configured compute, storage and networking resources. Specialized skills are still necessary in the majority of enterprise data centers, which still rely on legacy systems. But “once you start to build CI, all of that integration and testing is done prior to installation, giving teams the ability to focus on the management of the infrastructure as opposed to the componentry within the convergence.”

In ComputerWorld’s 2015 IT skills survey, “IT architecture” jumped to No. 1 on the list for the most in-demand IT skill. Here’s what Computerworld had to say about it: “The top 10 list starts off with a surprise. Although IT architecture is a fundamental area of expertise for techies at all levels and in various roles, it rarely makes anyone’s list of hot skills.” IT architecture skills imply a horizontal perspective: While infrastructure refers to the components that make up the architecture, architecture skills require knowledge of the design of the components and their relationships.

Further, the architecture skills required for today’s hybrid cloud environments are more significant than those that were traditionally required. According to Peyser, more than 80 percent of EMC customers now have a hybrid strategy. “The goal there is to broker services; some of which you build, and some of which you buy as software or platform as a service,” he says. “And that implies a more complex enterprise IT architecture.” To broker IT services in that way requires a knowledge of not only the relationship between individual
on-premises infrastructure components, but also the relationship between existing architecture and the cloud architectures that are now a part of the IT environment.

II. Filling the Gaps

According to the Windows IT Pro report, the most in-demand skills and certifications include Amazon Web Services, open-source tools such as Linux and OpenStack, configuration management systems such as chef and Puppet, programming platforms such as Ruby, Perl and Python and knowledge of development operations. Others include database technologies such as MongoDB, CMDB systems such as ServiceNow, and container technologies such as Docker.

Some experts suggest that the ability to converge infrastructure, or build custom integrated systems that can run private clouds, will be an increasingly in-demand skill. There is evidence of the growing importance of infrastructure skills in a recently published list of the 500 IT skills and job titles most cited by UK recruiters. Demand for the role of senior infrastructure engineer has jumped 31 places on the list this year, according to ZDNet. Jim O’Reilly, an IT infrastructure and cloud consultant at Volanto, says the low cost of white-box infrastructure will continue to drive enterprises in this direction.

Of course, it will depend on the organization, the size of their team and their IT budget, and most traditional enterprises simply don’t have the skills to build it yet. “Some organizations with a deep bench will have the ability to spend and build engineering talent, and they may go that route. You see that in a lot of the web-scale companies,” Peyser says. While EMC works with both types of customers, today, most opt for pre-engineered converged infrastructure – “because time that would be spent building, integrating and testing custom systems can instead be spent developing the services that will be offered out of the infrastructure.” However, in the future, the advantages of a custom-built environment may be compelling enough to begin developing those skills now.

It’s best to take a look at your infrastructure goals, including how and where you expect to scale over the next few years. Compare those goals against your budget, then determine which skills will be most essential to your ongoing strategy and begin to train your team in these areas first.
There are several training and certification programs available — many infrastructure vendors offer cloud, virtualization and automation training and certification programs. For IT organizations planning to train existing employees, availability and extent of training will be an important purchase consideration. InformationWeek lists some of the latest certification programs for cloud architecture, deployment and configuration, including offerings from Rackspace, Red Hat, VMware, IBM and others.

According to InformationWeek, growth in these areas has already created 400,000 new IT positions in the U.S. And even as more organizations invest in training for their employees, many will still find they need to hire new people.

III. Managing the Operational Transformation

Whether you’re placing new hires or reassigning existing employees, the people who will be best suited to take on new, service-oriented roles often possess certain soft skills that may not be covered in your training and certification initiatives. Kevin Hiler, who is director of IT Professional Services at Halyard Health, says the most critical skill a candidate can have is adaptability. When hiring or reassigning roles, Hiler suggests asking the following questions: “How much are they willing to be flexible and adaptable? Are they willing to go out there and understand and embrace the next thing? Are they proactively involved in growing and learning?”

Discussing the soft skills your team needs to develop may lead naturally to a broader conversation about the overall operational transformation that must occur. “You want to be able to package up IT services, provide financial transparency, and at the same time develop a set of processes, roles and skills to manage this,” Hiler says.

Developing a suite of services creates a different operating model that is based on supply and demand, and which relies on regular engagement with the business side of the organization. Teams making that transition will need to develop roles to manage the suite of services IT now provides, such as a services portfolio manager and services operations manager, who are responsible for managing the new suite of services and ensuring delivery of those services, respectively.
In addition to services managers, Peyser recommends assigning a business relationship manager early on in the process. “This is someone who works closely with the business, identifies demand, plans out new services proactively and is able to communicate both into IT and back to the business.” As the business relationship manager suggests new services, the services managers will formalize them as new offerings and enter them into the catalog. So while the business relationship manager may have identified a new service need for one business unit, the services managers can enable that service for other business units that may need it in the future.

IV. Managing the Mindset Shift

In addition to new roles, the shift to IT as a service requires a new way of thinking about IT, which can be difficult for employees who have spent their entire careers following traditional models. While the strategies you adopt will be highly dependent on your team’s attitude and your organization’s culture, it may be helpful to connect with peers at other organizations to discuss strategies that have worked elsewhere.

Mark Bowker, a senior analyst at ESG, tells the story of an IT leader who tackled pushback and skepticism from his existing team by bringing in a new employee with a fresh perspective. “He ended up with a new hire out of college, who wasn’t biased, and put that person in charge of the cloud strategy. The younger person was responsible for the day-to-day management and now his team is starting to walk a little faster in respect to the cloud.”

If you’re hoping a new hire will help get your team excited about the shift, Bowker says it’s key to communicate your intentions before bringing anyone new on board. “It’s important to educate people that it’s not about your job going away but embracing new ways to consume IT infrastructure.” With the right leadership, Bowker says, most people will want to make the change.

Peyser concurs. He says one EMC customer recently extended the value of clear communication beyond the IT team by advertising the new services model with the rest of the organization. The IT team developed a marketing plan that included an internal communications plan and a formal introduction of the new services menu. “It generated a lot of enthusiasm and energy within IT because they’ve seen themselves being rebranded and tied to emerging technologies and trends.
I wouldn’t classify it as a big accelerator to drive a service center model, but it is a unique way to get the rest of the business excited about transitioning.

It’s clear from this and other examples that the potential to fill IT skills gaps and shift to a services model already exists within many organizations. Recognizing that potential – in the form of both soft skills and the capacity to adapt, learn and apply new technologies – is the first step toward bridging the skills gap and embarking on a significant operational transformation.

“Many people within IT today are looking to do more things – bigger things - and our experience has been that the talent exists,” Peyser says. “When we communicate the right way, most people embrace it and are ready to learn and take on new roles and responsibilities.”

About StrataCloud

StrataCloud is building a platform to enable cloud-like agility in enterprise data centers. StrataCloud’s platform abstracts data center resources into a software-defined layer, automates infrastructure installation and application provisioning and enables IT to deliver defined services with the speed, agility and consistency of the public cloud.

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