

INSIDE

The business side of cloud computing

Cloud-in-a-box: Is it a good fit?

Making the cloud gateway connection

Hybrid clouds: The early years

The evolution of the cloud

Wanted: Cloud computing skills

Case study: Cloud solves big data problems

your strategic guide to

operationalizing

cloud

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wanted: cloud computing skills

Job opportunities are increasing
for IT pros with cloud-related
security, virtualization and
development abilities.

BY CAROLYN DUFFY MARSAN



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with cloud computing skills is on the rise, prompting training and certification organizations to expand their cloud-related offerings for 2011.

Dice.com, a website that lists available IT jobs, says it has 1,270 open positions that are classified as cloud computing jobs. This figure is up nearly fourfold compared to a year ago, when 320 cloud computing posts were listed.



“What I’m hearing a lot about now is security around the cloud.”

KATHY HARRIS, MANAGING DIRECTOR,
HARRIS ALLIED

“We have close to 1,000 more positions looking for cloud computing skills,” says Tom Silver, senior vice president of North America at Dice.com. “Cloud computing is not as big as some of the other skill areas, but it certainly is among the fastest-growing that we’re seeing in terms of year-over-year change.”

Overall, Dice.com has more than 74,000 IT jobs listed on its site, a figure that’s up 40% compared to January 2010.

Companies that are seeking [cloud computing expertise](#) include IT vendors such as Amazon and HP, and consulting firms such as PricewaterhouseCoopers and Computer Sciences Corp.

Silver says hiring managers are looking for certifications related to network security and virtualization when they hire cloud computing experts. Programming skills related to mobile apps and the latest browser technology – such as HTML5 and

JavaScript – are also cited in some cloud-related job postings.

“I think cloud computing jobs are to grow significantly in 2011,” Silver says. “Anything that helps employers make their operations more efficient and allows them to save money, which cloud computing does, is going to see an increase in demand. I could see the number of jobs doubling again by the end of the year.”

Seeking security skills

Silver’s advice to IT professionals looking to get into cloud computing is to brush up on their network security skills. “If more and more data is being accessed through the cloud, keeping that data secure becomes an even bigger deal,” he says.

“What I’m hearing a lot about now is [security around the cloud](#),” agrees Kathy Harris, managing director of Harris Allied, a Manhattan executive search firm that

places IT professionals at financial services firms and tech startups. "I'm seeing interest in engineers that have cloud security knowledge, both for the Internet and wireless, especially global knowledge, because the cloud can be literally anywhere."

Harris says her clients prefer cloud computing candidates to have security certifications such as the Certified Information Systems Auditor (CISA). She's also hearing some interest in the new Certificate of Cloud Security Knowledge (CCSK) exam, which launched in September.

"I'm also seeing a lot of interest in people with storage and virtualization experience, especially with VMware," Harris says. "I'm starting to really see the inclusion of scripting languages, especially for [database administrators] that are becoming automation gurus. The one I personally find the most challenging to find is API development experience."

IT training organizations are tapping into the demand for cloud computing skills. Learning Tree

International of Reston, Va., has four cloud computing courses that it developed over the past 12 months, and it plans to add four more courses this year.

"Cloud-specific courses have become such a key industry focus point," says Nicholas Schacht, president and CEO of Learning Tree. "People who are taking these courses are still in the early-adopter phase in their organizations."

In addition to a half-day, high-level cloud computing overview

IT training organizations are tapping into the demand for cloud computing skills.

for IT managers, Learning Tree offers three-day courses on cloud computing technologies and cloud computing security, as well as a four-day course on Microsoft's Windows Azure platform. New courses planned for 2011 include those on Amazon's EC2 platform and building private clouds with [Google App Engine](#).

"In the cloud, you need greater emphasis on [Microsoft's] .Net, Java and PHP," Schacht says. "Python



and Ruby may become more important. There's a great emphasis on the open source databases."



IT departments have a two-to-three-year window to acquire cloud computing skills.

But the most important skill set for cloud computing is security, Schacht says. "The requirement for good security skills is going to grow and grow and grow," he adds. "You also need a good, strong nod to mobile technologies, because cloud-based applications will increasingly be enabled with mobile technologies."

Securosis, an infosec research and analysis firm, hosted its first all-day training session in February to prepare IT professionals to take the [new CCSK exam](#).

"A lot of folks don't even understand what the cloud is, where it starts, and how it impacts the traditional ways that IT departments think about application and network security," says Mike Rothman, president of Securosis. "We've built a case-oriented metaphor to

guide the training. We build a cloud instance, and we talk about the specific decisions you need to work

through regarding the architecture and the security around moving a key business application to the cloud for this sample company."

Securosis plans to license its CCSK course to training facilities worldwide this year. The firm also is developing a longer-format training class that will include not only cloud architecture, but also related design and programming skills.

Schacht says IT departments have a two-to-three-year window to acquire cloud computing skills.

"Most organizations are not going to shed their current infrastructure and current architecture overnight," Schacht says. "But as they start to get to the end of life of their current servers and look at next-generation hardware and software, that's when you really have to be getting the cloud-based skills up and running." ■

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