Cross-functional skills key to running data centers

By Ellyne Phneah | April 2, 2013 -- 06:37 GMT (14:37 SGT)

Companies are increasingly looking for employees with a cross-functional skillset to manage their data centers, given that the dynamics are changing and IT becomes embedded in business-related activities.

That said, IT professionals equipped with security and Linux know-how will remain in demand.

Ng Tock Hiong, CTO for Cisco Singapore, said in the past, data centers were run by different teams focused on specific functions such as compute, storage, networking and applications. Each team would then work in their respective silos with minimum collaboration, he noted.

Virtualization, however, changed the dynamics of data center management by unifying applications, networks, storage, and servers. The integration demands a holistic skillset as IT becomes embedded in business activities, he explained. For example, a person who is skilled in application development will now have to understand how the software is linked to the backend and the related implications.

It's no longer enough for IT professionals to rely on a single skillset to stay relevant in the data center industry, as more companies are looking for well-rounded employees.
This is especially crucial in Asia where demand for well-rounded IT professionals is outpacing availability, Sunil Chavan, software group and cloud solutions director at Hitachi Data Systems Asia-Pacific, pointed out.

The problem is compounded with the rate in which technology and business models have evolves, with niche IT skills expected to become obsolete in a few years, Chavan added.

CR Srinivasan, vice president of global product management for data center services at Tata Communications, said when selecting potential candidates to manage data centers, they must have the right understanding of IT, facilities and security expertise, while being experts in one or two specific areas.

For instance, with the trend of companies running out of data center space and encountering power and cooling challenges, facility managers should have the experience of dealing with all of these challenges at once, Srinivasan explained.

Security, Linux skills in demand
As for specialized skills, Chavan said knowledge in security is in demand currently. Elaborating, he noted the evolution of data centers is driven largely by companies' IT demands as they start adopting on-premise, employee-centric cloud offerings. This can be seen in the growing trend of mobile and bring-your-own-device (BYOD) policies issued in workplaces, he said.

These factors create unique challenges for the IT department and how it should manage corporate information, so prospective IT professionals will need to know how to balance

providing enterprise security on BYOD technologies while providing device flexibility and ease of use to employees, he explained.

There is also a huge demand for Web 2.0 applications storage support from companies which want to use big data analytics to better manage their business units, Chavan added.

Linux skills will also come in handy for IT executives looking for a job running data centers, said Damien Wong, general manager of Red Hat Southeast Asia.

Citing findings from the 2012 Linux Job Survey and Report, Wong noted 63 percent of recruiting managers are increasing their Linux hires relative to jobs created in other skills areas. Some 85 percent of these say finding Linux talents is difficult though.

Research firm IDC also believes Linux will be one of two primary operating systems that will power public cloud infrastructure, and knowledge of the open source technology will increase in prominence as cloud adoption ramps up, he added.

These factors make Linux professionals some of the most sought after talents in the data center arena. Red Hat itself is looking for individuals with Linux administration and storage experience, Wong noted.

Collaboration between vendors, educational institutes needed
For the industry in general, the challenge now is accelerating the time required to enhance the skill levels of existing staff. Workers' skill levels will differ based on their experiences but all will need to be improved as technology advances, Ng said

Such challenges can be overcome when educational institutes work with IT vendors to come up with the relevant curriculum to address the shortage and this is a win-win situation for both parties, Chavan noted.

Red Hat Singapore, for example, has partnered several local tertiary institutes such as Singapore Management University's (SMU) School of Information Systems and Nanyang Polytechnic to offer its Linux certifications to students, Wong said.