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Is your company at risk of an IPv6 brain drain?

Demand for workers with IPv6 skills -- from undergrads to experienced engineers -- is on the rise

By Carolyn Duffy Marsan, Network World
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Timothy Winters, senior manager at the University of New Hampshire's InterOperability Laboratory (UNH-IOL), gets calls every week from headhunters looking to hire network engineers, network architects and software developers with experience in IPv6, the looming upgrade to the Internet's main communications protocol.

"A lot of people are sending me job opportunities in the IPv6 space," says Winters, who has more than 10 years of experience testing routers, firewalls and other network devices for compatibility with IPv6-related standards. Winters says the IPv6 hiring frenzy is the result of "a lot of companies rushing as fast as they can to get IPv6 deployed in their products."

The sudden demand for IT professionals with IPv6 experience coincides with a push by content providers such as Yahoo, carriers like AT&T and network equipment vendors like Juniper to expand their IPv6 offerings.

CIOs from all vertical industries are realizing that they need to deploy IPv6 on their public-facing Web sites in the next few months or risk making these sites unavailable to new Internet users and devices that ship with IPv6 addresses.

PANIC TIME: IPv6 quiz

The growing interest in IPv6 is the result of the Internet having run out of unassigned addressing using the existing version of the Internet Protocol known as IPv4.

Another driver for IPv6-related job opportunities is World IPv6 Day, a 24-hour trial of IPv6 that is scheduled for June 8. Dozens of high-profile network companies and content providers -- including Cisco, Juniper, Facebook, Google, Yahoo and Microsoft -- have announced plans to participate in World IPv6 Day.

"I've seen a lot of companies wanting to demo or show stuff around World IPv6 Day," Winters says.

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Meanwhile, U.S. federal agencies must adopt IPv6 on their public facing Web sites and services by September 2012 because of a new mandate from the Obama administration.

As IPv6 momentum builds, so do the job and career prospects for IT professionals with knowledge and hands-on experience with this emerging network technology.

One sign of the times is that the 12 undergraduates who work at the UNH-IOL IPv6 testing lab are getting job offers months in advance of graduation, Winters said.

Demand for UNH-IOL students has coincided with an increase in the number of devices -- currently 20 per month -- that the lab is testing for compliance with the U.S. government's IPv6 profile and the IPv6 Forum's IPv6-Ready Logo program. To meet the rising demand for IPv6 product testing, Winters added one full-time staff member and five undergraduate students to the lab's staff last year.

"We haven't had any of our five full-time staff poached," Winters says, "but our undergraduate students haven't had any trouble finding jobs."

Jobs are readily available for not only entry-level engineers with IPv6 skills but also senior executives with experience in IPv6 network deployments.

Ed Jankiewicz, an active member of the IPv6 standards community and a senior research engineer with SRI International, says he and some of his colleagues have received calls from an IT industry recruiter trying to fill a job opening for a senior-level IPv6 network architect job at Cox Communications.

Cox Communications is "seeing IPv6 within their planning horizon and recognizing the need for an experienced network architect to help with their implementation," Jankiewicz says. He describes the job as "a very strategic position for someone with the background and initiative to help bring a major network operator into IPv6. If I were on the market and willing to [relocate], I would jump on this, but [it's] not the right time or place for me."

Online job postings that specifically mention IPv6 skills are multiplying.

A search of the www.simplyhired.com Web site turns up nearly 1,500 job postings that specify IPv6 as a required skill. These include positions for network engineers, software engineers, network architects, systems engineers, test engineers and developers. Companies looking to hire IPv6 expertise include Accenture, AT&T, Blade Network Technologies, Brocade Communications, Cisco, EBay, Ericsson, Google, Hewlett-Packard, Microsoft, Motorola and Verizon.

IPv6 skills are a prerequisite for getting hired at Global Crossing, which has a network backbone that has been running IPv4 and IPv6 side-by-side in what's called a dual-stack configuration for 10 years.

"Most of Global Crossing technical staff already have IPv6 skills, and any new engineers we hire are skilled in IPv6," says company spokeswoman Kate Rankin. "These skills have become standard for engineers working in this area."

Network engineers with IPv6 skills are now boasting about them on their resumes. There's an interesting debate about whether it's worth listing IPv6 certifications on a resume on an online forum run by Hurricane Electric, which runs the world's most interconnected IPv6 backbone.

"If you are cleaning your resume, you should put IPv6 in there somewhere if it's a skill you feel you have," says one post.

IPv6 will "be a topic of conversation that you can use to sell yourself," adds another post.

Sensing the demand, IT professionals without IPv6 experience are signing up for training classes in droves.

Lisa Donnan, executive vice president of cybersecurity solutions at Command Information, says demand for the firm's IPv6 training classes is up 100% over last year among both commercial and public sector organizations.

"CTOs, CIOs and CISOs are now having to deal with, Do they have the right talent in their organizations to address IPv6?" Donnan says. "The short answer is they don't. It is complicated and, unlike Y2K, not a calendar event."

So far, Command Information has been able to retain its own IPv6 experts.

"While our experts have always been in demand, recruiter calls have increased exponentially: at least one recruiter call per Command Information IPv6 staff person a week," Donnan says. "Our experts have been focusing exclusively on issues and challenges related to IPv6, which keeps them here."

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