



How the iPhone is killing the 'Net

We review Jonathan Zittrain's new book: *The Future of the Internet and How to Stop It*. Zittrain argues that today's Internet appliances, such as the iPhone and Xbox, hamper innovation. He writes that these locked-down devices prohibit the kind of tinkering by users that made PCs and the Internet such a force of economic, political and artistic change. **Page 12.**

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Linux client momentum

While Linux isn't going gangbusters on corporate desktops, it is showing up in everything from mobile phones to tablets to global positioning systems to gas pumps. **Page 23.**

Wide-open Verizon

Verizon Wireless exec Kyle Malady explains what's behind his company's decision to open its network more to third-party devices. **Page 24.**



10 security threats to watch for

Virtual servers, public Web sites and mobile devices are popular targets. **Page 30.**

The trouble with Motorola

Columnist Howard Anderson on why the wireless company has struggled so mightily. **Page 32.**

Selling your skills to software

Screening apps now part of labor-crisis discussion

BY DENISE DUBIE

Terri Morgan could sell her talents to anyone who would listen, but the software programs used to screen IT job applicants don't hear so well.

Morgan has dealt with more résumé-screening programs than human beings in her quest to gain a live interview at companies such as IBM, KPMG and Disney (see Morgan's first-person account, page 22).

These talent management applications look for keywords and patterns, but can't, after all, recognize human potential (see related story at www.nwdocfind.com/4444).

See Careers, page 20

Rising security threats sparking calls for unity

BY NETWORK WORLD STAFF

SAN FRANCISCO — IT executives heard firsthand at last week's RSA Conference about just how vulnerable enterprise networks have become in light of more organized and dangerous cybercriminals going on the attack.

An estimated 250,000 computers are compromised every day by bot herders, according to Robert Holleyman, president and CEO of the Business Software Alliance (BSA). The number of exploits is seven times higher than it was a year ago, and the cyberthreat is "growing exponentially," he said.

Vendors are rallying to improve enterprise security options, but no one suggests it will be easy. A number of the 550 speakers at RSA highlighted the need for more industry collaboration to fight the threats more effectively.

Microsoft championed the need for a

new generation of secure systems, an idea that the company is calling end-to-end trust. (See related story, page 16.)

Craig Mundie, Microsoft's chief research and strategy officer, called for industry cooperation to work out the protocols and

formats that will be needed to create these end-to-end trust systems, which could let people establish trust and disclose private information electronically in a manner similar to how it's done in the real world.

Among the challenges are creating devices with hardware-based authentication, designing operating systems and programs that can talk to other programs about their own trustworthiness, and devising ways of keeping track of where data has been, Mundie said. We have a lot of work to do to make this effort succeed, he said.

Separately, Art Coviello, executive vice **See RSA, page 14**

RSA show coverage inside

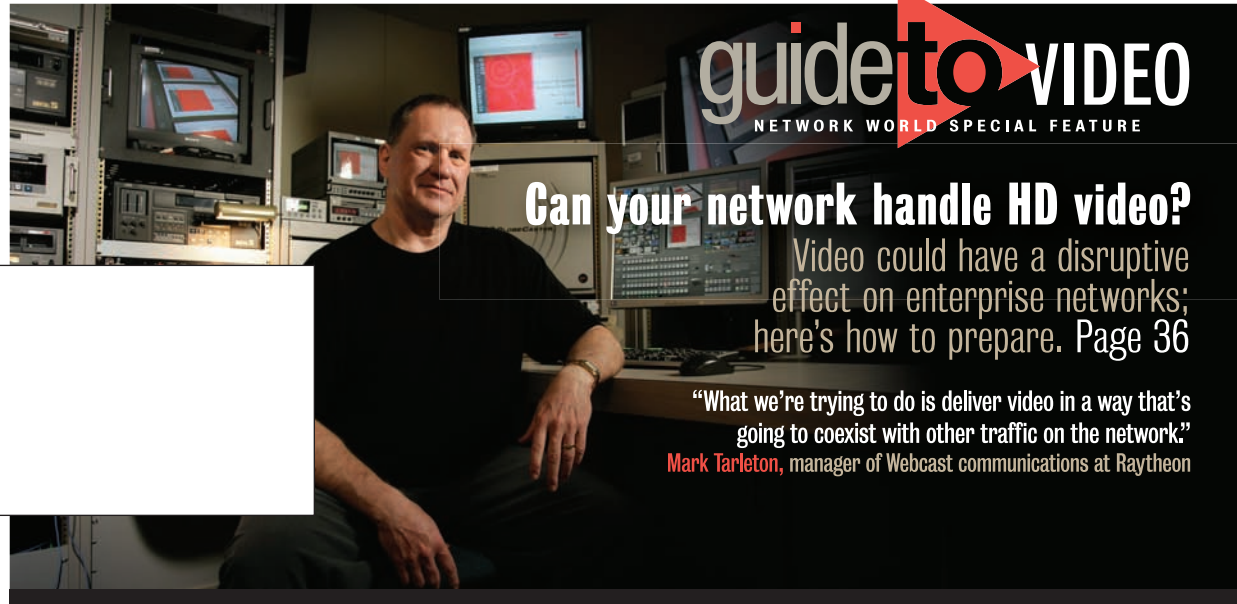
Microsoft talks about trust. **Page 16**

A power grid's vulnerability exposed. **Page 16**

What's up with NAC. **Page 18**



STEWART COHEN



guide to VIDEO

NETWORK WORLD SPECIAL FEATURE

Can your network handle HD video?

Video could have a disruptive effect on enterprise networks; here's how to prepare. **Page 36**

"What we're trying to do is deliver video in a way that's going to coexist with other traffic on the network."

Mark Tarleton, manager of Webcast communications at Raytheon

Careers

continued from page 1

"I have the skills these companies say they want, but my résumé doesn't come out when they apply their sorting algorithms or random lotteries," Morgan says. "They are using software to look for A, B or C, so they are missing the rest of the alphabet in terms of technical skills."

Morgan's experience is at the heart of the industry's so-called labor crisis, with companies shouting about the shortage of skilled workers and out-of-work IT professionals saying shortage claims are contrived by employers who are looking to offer less in compensation, force out experienced workers and hire young or foreign staff in their place.

"Hiring managers are being told by recruiters there aren't any people to hire, and then everyone wants to look to H-1B and other foreign worker programs when there is a whole host of us in this country that have really good skills and can easily learn others," Morgan says.

Stories abound about the IT talent pool drying up as baby boomers retire and college students avoiding high-tech studies, and skilled IT workers say they are being overlooked for these open positions.

"You read all these articles and you want to scream, I'm right here!" says David Currier, a member of the infrastructure team for Perot Systems/Owen & Minor Medical in Richmond, Va. Currier is working on contract thousands of miles from his Seattle home and continues to look for a position that better suits his life.

"You start to feel invisible," Currier says, "but then you realize companies are looking for an exact fit in terms of skills, experience and salary, and that might not synch up with what you have to offer. I am not at the point yet where I'd lie to get a job."

Experts say the crux of the job disconnect involves three key areas: companies don't have the time or money to invest in training or don't make it a priority, so employees get out of synch; advances in business and technology outpace the ability of IT professionals to keep up; and salary expectations established during the tech boom of the 1990s can today be considered exorbitant.

Training drought

Companies feeling the pressure to fill positions may have created their own problem by not allocating enough time, money and resources to training programs, experts say.

"Training is an opportunity to prepare your workforce for the changes in technology and business needs," says Neill Hopkins, vice president of skills development at the Computer Technology Industry Association (CompTIA). "Still, in many organizations, as soon as times get tough, training is the first budget to get cut — which will hurt in the long run as systems get more complex and technology changes come faster and faster."

The lack of priority given to training forces companies to look outside for new skills, but

Help wanted

Many leading technology companies are among 500 U.S. firms with some 140,000 open positions listed as of January 2008.

| Company | Job openings |
|-------------------------------|--------------|
| Microsoft | 4,005 |
| Northrop Grumman | 3,925 |
| Lockheed Martin | 3,901 |
| IBM | 1,670 |
| Computer Sciences Corp. (CSC) | 1,666 |
| Cisco | 1,504 |
| HP | 1,398 |
| Oracle | 1,200 |
| Electronic Data Systems (EDS) | 981 |
| Google | 922 |

SOURCE: NATIONAL FOUNDATION FOR AMERICAN POLICY, MARCH 2008

hiring people based on a specific and limited skill sets needed in the short term ultimately will land companies in a personnel pinch, experts say.

"The mentality is that when companies need IT people, they will hire them for whatever skills, and if they don't need them, they let them go. There isn't an interest in building careers in IT for employees anymore," says David Foote, CEO at Foote Partners, which focuses on IT workforce issues. "It's almost as if IT people have become expendable."

Even when the money is there, the pressure cooker nature of the work can make it impossible to use. Ron Nutter, *Network World* help desk editor and an IT professional looking for full-time work in the Kansas City, Mo., area, says he had \$4,000 for career development in one position but could never find a chance to use it: "It was never a good time for the company."

And now that he is searching for a job, he says the expectation for candidates to be fully up to speed on new technologies is ironic. "They want you to have what they need walking in the door but often refuse to make training available," Nutter says. "To me it begs the question, 'Where do you want to spend your money? Finding new people or training the good IT staff you have?'"

Staffing agencies such as TAC Worldwide say they advise their clients to keep training top of mind. "You may spend \$1,000 to train an existing person, but you'll spend \$6,000 hiring a new one," says Steve Clifford, field recruiting director for TAC Worldwide.

Skills shift

Technical skills are a must for any IT position,

but the type of skills needed has changed and the balance of technical know-how vs. business acumen has shifted dramatically, meaning once marketable and specialized skills are now considered commodity.

"There are a lot of IT folks out there that for some reason can't get up to speed on what is more in demand now, and they will be bypassed in the hiring process for younger workers or outsourced," Currier says.

Among the desired skills is business knowledge. Industry watchers say IT job seekers must expect to work with business managers, incorporate business plans in IT strategy and talk the language of the business.

"This has been a slow shift, but it's real now," says John Estes, vice president of strategic alliances at Robert Half Technology, an IT staffing consultancy. "IT people need to be well-versed in the business. It's not about building a better mousetrap anymore; it's about proving what you have done delivers a return on investment, improved services or made more money for the business."

TAC Worldwide's Clifford agrees: "If you are an IT professional, it is critical you get involved at a business level and that you are not just a coder, so to speak. Today you have to understand the business you are supporting."

For this reason some high-tech graduates today also pursue degrees in business management. Those who focused solely on computer science say they are at a loss when looking for work, and some believe the education system didn't adequately prepare them for the skills employers want.

"There is a severe skills disconnect," says one job seeker who wishes to remain anonymous as he continues his four-year search for full-time employment. "What the college courses offer and career services say employers are looking for is completely off. I have a bachelor's in computer science and I'm [also pursuing that in] grad school, but universities are not training us in the skills employers really want so I'm not sure my graduate work will help me find a job."

Skewed salary expectations

Salary requirements is also a point of contention in the hiring process. IT professionals say companies won't offer what experienced tech workers deserve.

"I understand the market is soft, but if you want talented people, you should offer pay commensurate with skills," Nutter says. "I also look at the benefits package. If that is good, the pay can be less, but that will only carry you so far."

Industry watchers argue that salary expectations developed during the high-tech boom need to be right-sized for today's economy. While Nutter, Morgan and Currier all can recall a time when they could pick and choose positions based on the highest pay, experts say today's IT market won't bear that same luxury.

"Employers are always looking for younger

See Careers, page 22

Careers

continued from page 20

talent for a lower price point because it benefits the business," CompTIA's Hopkins says. "IT pros need to understand this, keep their skills updated and not fall behind, because that makes them vulnerable."

Currier says companies prefer to hire young IT workers not only because the pay is lower but also because they can work them 80 hours per week on the promise they will someday become millionaires before they are 30 years old.

"They take advantage of kids that don't already know what senior IT people know: The Microsoft millionaire story only happens to a few people out of thousands, no matter how hard you work," he says.

IT staffing experts say companies don't base salary solely on technical expertise or years of experience. Newcomers might be surprised they won't get six figures to start, and veteran IT workers expecting an increase every year could be disappointed.

Part of the reason is the current economic climate, but Beyond.com CEO Rich Milgram points out that even specialized skills don't promise the same pay they once did. And advances in social networking and Web 2.0 technologies in which non-technical people can download software, communicate with each other easily and even build Web pages, has created the perception that IT skills might not require higher pay.

"It's going to be tough on entry-level people with little hands-on experience and high-end people who have had bigger salaries," Milgram says. "Both groups will have a tougher time finding a job because salaries are coming down. Frankly, it's just easier for business people to do some of the technical things that in the past required a special skill and a high-end IT professional."

But back to the fundamental question: Is or isn't there a skills shortage? At the very least, there is a misalignment of needs and expectations.

Employers aren't finding the skills they want in the candidates applying for work, but that might be because they are overly reliant on applications that can't recognize potential, and the shortage might be of their own making if they aren't investing adequately in training.

And IT professionals can't seem to find jobs that match what they have to offer for what they believe is adequate compensation. That means they might have to update their skills and come to grips with new economic realities.

The irony is the IT industry thrives on change but hasn't done well in preparing for it.

"Technology forces skills shortages," Foote of Foote Partners says. "Technology changes too quickly for IT professionals to keep up or for companies to know in advance what technology they will need to put in place in the future to better compete." ■

Please see me in person

BY TERRI MORGAN

Editor's note: First person account, special to Network World.

"Well-qualified, capable, generalist with management, software development, Web programming, quality assurance, documentation, multiple languages and extensive China experience seeks interim or regular employment."

Problem is, no one wants me. I'm told I'm overqualified for this position or don't have enough experience for that position or don't have version 3.2.4.7 of Big Company's software or 'I'm not a good fit' or something. The excuses go on and on.

Pseudo-requirements are sliced and diced and assembled into lists of tasks that no one person could actually perform. It seems the real goal is to eliminate as many people as possible so recruiters don't have to talk with all those pesky applicants, and then the company turns around and claims it can't find anyone.

I was recently told by an IBM representative that "Your skills and experience are admirable, but they don't matter." She said the company uses a computer matching algorithm to search résumés for keywords and proper formatting, then uses a random selection process to pick through the matched resumes. Translation: We "care more about formatting and keywords than people."

KPMG takes a similar approach. I recently responded to a call for a senior project manager for the company's China practice, preferably with language skills. With more than 15 years in China, many business contacts, near-native fluency in Mandarin and 10-plus years project management, consulting and business development experience, I thought I would be on the short list. I was wrong. My qualifications and skills did not matter. I was told I wasn't wanted because I had not previously worked for a direct competitor.

Just recently I was told by a sympathetic recruiter (one of the good ones) that he thought I would be a good fit for a team developing requirements for a SAP implementation, but he wasn't sure if the hiring manager would consider me because I didn't have years of SAP experience. I reminded him I was experienced in gathering requirements, had worked with other ERP systems and that each installation is unique. I pointed out I learn quickly and can perform basic functions in any system within hours. He agreed I could probably do the job, but the hiring manager had an unrealistic expectation of the skills needed for the role.

Last month, there was a translation job at Disney. The requirement was for someone who could translate a database interface to Chinese. I have over 10 years database development and translation experience; I know the difference between a field name and a label. I've worked extensively with forms and reports and with the CJK character sets. I contacted the recruiter.

"Do you know Siebel?" he asked. "I have Oracle, Informix, MySQL, Access and a little DB2," I replied. It did not matter that I was not going to be a DBA nor was I being hired to design the system; the manager would only consider a Siebel expert.

Conversely, I have been told I have too much experience (translation: we want someone younger). I had applied for an analyst contract, but was told by the consulting company the job was reserved for someone with two to five years experience and they didn't want me. I thought about filing an Equal Employment Opportunity Commission complaint, but last year the EEOC office in Miami told me contractors and consultants are not covered by EEOC laws. It seems hiring managers can freely discriminate as long as they are only discriminating against non-employees.

Bottom line: "Must have" lists have replaced human beings, and experienced workers are not wanted. If real people were actually considered instead of simplistically matching skill lists, employers would find a wealth of resources available — and there are quite a few of us looking for work!

The practice of automatically rejecting qualified people because résumés don't precisely match the "must have" list or include the "right" combination of keywords is what is creating the fake skills shortage. It has nothing to do with a lack of talented people.

If your organization could use a talented, well-qualified, multifunctional person with international experience and a positive attitude, contact me at terri.morgan71@yahoo.com.