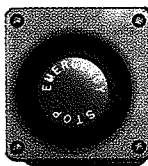


# Inside

COMPUTERWORLD ■ JANUARY 1, 2008

## NEWS DIGEST

Microsoft acknowledges that a patch crippled Internet Explorer for some users. | SPEC releases a benchmark test suite designed to help IT managers compare servers on the basis of energy efficiency.



**6 E-voting systems** in Ohio are found to have serious security shortcomings. | A systems administrator faces up to five years in prison for shutting down the data center that controls California's electrical grid.

**8 A car parts catalog publisher** uses open-source tools to ease data integration. | Opera Software files a complaint in Europe to try to force Microsoft to unbundle IE from Windows.

## OPINION

**2 Editor's Note: Don Tennant** knows he's no Nostradamus, so he figures he's better off predicting what won't happen in IT in 2008 rather than what will happen.

**36 Frankly Speaking: Frank Hayes** looks at some hot-button issues to watch out for this year: security, users who can't be stopped and baby boomer brain drain.

## SPECIAL REPORT FORECAST 2008

# 8 TRENDS FOR '08

These eight trends for the new year, identified in our latest Vital Signs survey, run the gamut from lukewarm budgets to white-hot talent searches to data boiling over. Not much in life is certain, but here's what you can count on: It will be a busy year filled with intricate projects, new staff and a crushing amount of data.



### TREND NO. 1

**10 Tightfisted Budgets Loosen a Bit**  
IT executives like Animas CTO Bogdan Butoi-Teodorescu (above) expect some relief from years of austerity, yet the economy continues to cast a shadow of uncertainty over the best-laid tech spending plans.



### TREND NO. 2

**16 Projects Get More Troublesome**  
Project management is a mounting headache for IT managers, thanks to increasing globalization, IT budget swings, an overall increase in the complexity of projects and end users who are simply demanding more.

### TREND NO. 3

**18 Servers Go Front and Center**  
As organizations consolidate their systems and prepare for new versions of key software, such as Windows Server 2008, major server-related projects are getting put on the front burner.

### TREND NO. 4

## 20 Storage Projects Rise in Importance

The profusion of large files and even virtualization technology is driving data overload and forcing corporate IT leaders to find new ways to centralize storage.

### TREND NO. 5

## 22 Face-off: Virtualization Takes Center Stage

Frank Hayes (right) draws the ire of Mark Hall when he declares 2008 the Year of Virtualization.



### TREND NO. 6

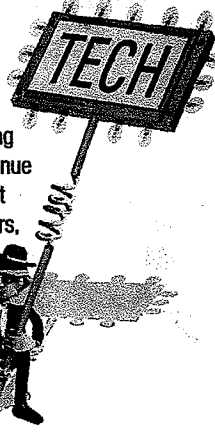
## 26 Hiring Ticks Up Again

As more projects get green-lighted, IT isn't just adding bodies; rather, it's looking for people with key skills to help drive specific business goals and objectives.

### TREND NO. 7

## 28 A Skills Shortage Simmers

CIOs and other hiring managers will continue to struggle to recruit and retain IT workers, putting upward pressure on compensation for hot skills.



### TREND NO. 8

## 30 Google Speeds Up Expansion

Google watchers offer bold predictions on the company's next moves.

# Online

AT COMPUTERWORLD.COM

Industry pundits present eight things you ought to prepare for in 2008, from working in a fishbowl to battling internal political strife.

Once you've read *Computerworld's* look at the top eight trends for corporate IT, visit our Web site to read about the personal technology trends that will make news in the coming year. *Computerworld* contributing writer and mobile tech expert Mike Elgan makes his predictions.

## >>> VITAL SIGNS <<<

### SKILLS CRUNCH

The jobs that IT hiring managers say will be most difficult to fill in 2008, because of a lack of workers with that particular skill:

- Data management experts
- Software developers
- IT security workers
- Project managers
- Network managers
- Help desk staffers
- Storage administrators

SOURCE: COMPUTERWORLD'S FIRST-HALF 2008 VITAL SIGNS SURVEY, SEPTEMBER 2007; 103 RESPONDENTS

IT consultancy BSG Concours in Kingwood, Texas.

To help retain and engage coveted IT workers, some IT leaders are beginning to try tactics such as allowing technologists to apply for sabbaticals or devote 10% to 20% of their workdays to developing a new skill or pursuing a technology or business discipline that interests them, says Rosen. "One person I know spent six months helping a university build a whole new IT curriculum," he says.

Cross-training is another way to keep people engaged, and not just in smaller IT organizations where resource constraints come into play. Sabre Holdings Corp. moves people across disciplines within projects and also has them work with different business units, says Sara Garrison, senior vice president of product and solutions development at the air-travel software company.

Cross-training "is really, really critical" for retention, says Garrison, who oversees a group of 1,200 to 1,400 developers at Southlake, Texas-based Sabre.

Since the talent pool for certain IT skills remains shallow, hiring managers should also consider casting a wider net. For instance, earlier this year, U.S. Bancorp in St. Paul, Minn., hired a client/server application support technician who had been out of the IT field for a few years and had previously worked as a manager at a tire store.

"We know that he's going to stay with something that's broken until it's fixed," says Joel Reiter, an application analyst at the bank. "His technical skills are excellent, and he knew what it was like to work with customers." ■

# 8 HOTTEST SKILLS FOR '08

No one is mistaking the current IT job market for the one that existed during the dot-com days. But even though the U.S. economy is wrestling with a weak housing market and record oil prices, demand for IT workers is on the rise.

"There is a distinct shortage of certain IT [skills], and that shortage seems to be growing," says Neill Hopkins, vice president of skills development at The Computing Technology Industry Association Inc. in Oakbrook Terrace, Ill. Here are the top eight skills for 2008, as identified in our Vital Signs survey.

**1 Programming/application development.** As companies continue to Web-enable existing applications and plow deeper into Web 2.0, demand is red-hot for people with AJAX, .Net and PHP skills, says Katherine Spencer Lee, executive director of Robert Half Technology in Menlo Park, Calif.

**2 Project management.** CIOs are hungry for project managers with experience overseeing complex efforts that have delivered clear business benefits – not just people with a Project Management Professional certification, says David Van De Voort, principal consultant at Mercer LLC in Chicago.

Many organizations, such as Sabre Holdings, are applying agile development techniques. Finding people with finely honed skills in this area "is extremely important," says Sara Garrison, senior vice president of product and solutions development at Sabre.

**3 Help desk/technical support.** Do the math: As companies add to their application portfolios, more experts will be needed to support those systems. And much of that expertise will need to be on-premises, while only a fraction of the work is being shifted to overseas call centers. Demand for support staffers will remain strong as commercial applications continue to become more complex, notes Hopkins. "You'll need higher-skilled workers not only to

implement, but [also] to manage these systems," he says.

**4 Security.** There will always be a need for IT professionals with core security credentials, such as intrusion-detection capabilities and government security clearances, but database and wireless security projects will drive that demand even higher this year.

Thanks to the Sarbanes-Oxley Act of 2002, "there has to be a way to control security on databases and networks to a level that we've never had to lock it down before," says Joel Reiter, an application analyst at U.S. Bancorp.

**5 Data centers.** There has been a flurry of activity among companies and government agencies around upgrading or relocating data centers to take advantage of virtualization and other data automation and efficiency opportunities. Meanwhile, demand for database management experts is growing "simply because organizations are putting a heck of a lot more of their business [data] on these very large databases," says Hopkins.

**6 Business knowledge.** Demand remains strong for people with business acumen, whether they're specialized business analysts or application developers, or other technicians with business-specific knowledge. "It's not impossible for us to find a technical person, but it is more difficult to find someone who can be a [technical] jack-of-all-trades with the business acumen to be a combination business analyst/systems analyst," says Frank Hood, CIO at sandwich chain operator The Quiznos Master LLC in Denver. "It's hard to find that total package of skill sets."

**7&8 Networking and telecommunications.** All sorts of networking skills are hot right now as organizations collapse their voice and data networks with wireless and voice-over-IP technologies, says Van De Voort. There's also huge demand for people with wireless know-how, particularly those with security skills, as a growing number of organizations try to build secure mobile applications, says Garrison.

- THOMAS HOFFMAN