

# COMPUTERWORLD

Vol.47 - 2013

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- 10 Cloud platform OpenStack owes a debt to NASA.

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- 30 Wanted: Jack of Two Trades. Job hunters, take note: Today's hottest job titles are business-tech hybrids.

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- 34 Dice.com's Alice Hill argues that it's time for IT professionals to start quitting their jobs.

### **HEADS UP**

- 2 A Swiss supercomputer upgrade might improve Alps weather forecasts. | Solar cells could get an energy boost from nanowires.
- 4 The DHS embraces cloud computing and agile development. | With next-gen transistors, circuits could work like the human brain.

### **NEWS ANALYSIS**

- 6 Small and midsize organizations are pulling the plug on in-house data centers.
- 8 Oracle moves toward a unified chip architecture for its two server families.

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- 4 Easy XP-Windows 7 upgrades are history. | College-level Cobol classes grow scarce.

## **NEWS ANALYSIS**

- 6 Microsoft faces a loss of relevance as user aversion to Windows 8 leads to a drop in PC sales.
- 8 Smartphone photos and videos were key to the Boston bombing probe.

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- 14 Bart Perkins' advice is to keep self-destructing messages out of the enterprise.
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- 40 Paul Glen lists the five warning signs that you have a toxic project team.

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- 24 Free (With Strings Attached). Open-source software is free, flexible and adaptable, but lax oversight can obliterate the benefits. Read about how IT is keeping track.
- 28 Spring Training for BI Experts. How do you make it to the data scientist big leagues? There's no one right path. Instead, it's largely a scramble out there on the big data field.

## **HEADS UP**

- 2 Harvard envisions an era of low-cost solar power. | Google bets big on new tech.
- 4 Domestic IT service providers applaud the immigration bill's checks on H1-B use. | Florida bans drones without a warrant.

## **NEWS ANALYSIS**

- 6 Companies ask business-savvy IT pros to help them make money.
- 8 Breaches are harder to detect because clever hackers are outwitting security tools.

## **OPINIONS**

- 14 Thornton May advises taking an "ensemble" approach to data science.
- 34 Preston Gralla wonders if Microsoft will once more be bested in a market it pioneered.
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## **COVER STORY**

- 16 Project Greenlight. It takes finesse to manage a seemingly infinite stream of worthwhile projects as they flow through an IT department with finite resources. Here's how to avoid backlogs and chaos.
- 26 Bring Your Own Cloud. As personal and professional clouds converge, IT'S mission to improve productivity while protecting corporate apps and data is getting tougher.
- 32 Build, Dismantle, Repeat. You can learn a lot about running a successful IT shop from CIOs who manage short-lived but intense IT operations for disaster relief efforts and the like.

## **HEADS UP**

- 2 A Black-Berry shop bucks the BYOD trend. | Half of all companies are expected to go completely BYOD.
- 4 Shrinking chips challenge Moore's Law. | Microsoft's Nook bet has yet to pay off.

## **NEWS ANALYSIS**

- 6 Out-of-work IT vets say employers give them the cold shoulder.
- 8 Chinese hackers stay hidden as they quietly steal data.

## **OPINIONS**

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- 38 Bart Perkins has advice on avoiding IT audit nightmares.
- 44 Paul Glen shares the secret to keeping processes vital.

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### **COVER STORY**

- 16 How to Wrangle Innovation. Creativity is the driving force in top-tier organizations. Read how five are capturing opportunities for innovation and pulling in fresh new ideas.
- 24 IT Takes on Bureaucracy. How a small, fast SWAT team is improving performance at the Department of Veterans Affairs - one project at a time.
- 28 Big Data, Big Impact. Four of this year's Computerworld Honors Laureates are using big data to battle the effects of unemployment and climate change, raise social awareness and help at-risk students.

### **HEADS UP**

- 2 Crazy ideas pay off for Google. | If you telecommute, thank a techie.
- 4 Windows 8 again plays the role of Dell's scapegoat. | The Bitcoin Foundation is doubling its staff-to four people.

### **NEWS ANALYSIS**

- 6 The immigration bill "stinks like an onion," says H-1B critic Charles Grassley. | 8 The U.S. faces a "Sputnik moment."

### **OPINIONS**

- 14 Preston Gralla is seeing signs of life in Microsoft's mobile corpse.
- 34 Lynne Williams thinks education is the way to keep IT security pros a step ahead of the bad guys.
- 40 Thornton May has learned that IT cost management doesn't mean cost reduction.

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- 27 Top 10 Rankings. See the organizations that have the best benefits, the most diverse workforces and the widest selections of training options.
- 50 How We Chose the Winners. We collected employer data and gathered satisfaction ratings from more than 27,000 IT workers.

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- 4 IT is evolving as tech changes. | Hackers embrace P2P systems.

### **NEWS ANALYSIS**

- 6 China has once again built the world's fastest supercomputer.
- 8 Are your systems hosted in Oklahoma? Don't worry: Data centers there can withstand tornadoes.

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- 26 Our Email Addiction. The kids may have moved on, but business users love (and hate) their email. Here's why we can't break free.
- 32 Data Centers Under Water. Climate change causes some IT leaders to ponder relocation and other, less drastic, hardening measures.

### **HEADS UP**

- 2 HP plans to close the book on OpenVMS. | Foxconn puts 20,000 robots to work.
- 4 Dual-OS hybrid tablets may be versatile, but they give IT headaches.

### **NEWS ANALYSIS**

- 6 Oracle joins Salesforce.com and other rivals in cloud-centric ventures.
- 8 A film tells how a diesel-fuel bucket brigade kept a Manhattan data center running during Hurricane Sandy.

### **OPINIONS**

- 16 Preston Gralla believes Microsoft needs an engineer CEO.
- 40 Bart Perkins says size matters when it comes to suppliers, but not the way you think.
- 48 Thornton May urges IT to reconsider its position on tech buying habits.

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- 16 Buried in Licensing. IT leaders are fed up with traditional enterprise software licensing models, and they say the cloud may complicate, rather than simplify, the situation. Here's a look at how they're breaking free.
- 24 Inside the Yogurt Wars. In the fiercely competitive yogurt business, one company was able to gain market share with the help of data analytics tools that improved the accuracy of its forecasts.
- 28 Job Well Done? The IT performance evaluation is evolving, as managers seek a better way to measure techies' contributions now that IT is a strategic business partner, not a service provider.

## **HEADS UP**

- 2 New NOAA supercomputers go live. | A study says U.S. workers outperform foreigners.
- 4 Microsoft adds Java to its cloud roster. | A new app foils spam with email aliases.

## **NEWS ANALYSIS**

- 6 Many IT pros can't seem to avoid working vacations.
- 8 Microsoft plans to expand its lineup of hardware offerings.

## **OPINIONS**

- 14 Steven J. Vaughan-Nichols ponders Microsoft's about-face on targeted ads.
- 32 Paul Glen questions the value of quick-win deliverables.
- 40 Bart Perkins says coding contests can help identify IT talent.

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- 10 The Grill: Vanguard Health CIO Scott Blanchette
- 32 Security Manager's Journal: Learning to let go and offshore
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## **THE WINNERS**

- 14 Quintiles uses data analysis to speed time to market.
- 15 Procter & Gamble navigates global markets with BI visualization.
- 16 Intel safeguards enterprise IT with a big data security platform.
- 16 LiveRail uses metrics to help customers get the most from ads.
- 18 Pinellas County Juvenile Welfare Board spends wisely with the help of BI.
- 20 Novation turns to big data to control medical supply costs.
- 21 Ingram Micro automates contract renewals with BI.
- 21 Catalist analyzes data to give pols an edge in close elections.
- 22 Constant Contact studies big data to improve email marketing.
- 23 Express Scripts helps doctors and patients find lower-cost medications.
- 24 Vanguard Health Systems adds \$62 million in new revenue.
- 25 Harvard University uses a computing grid to share research data.

## **HEADS UP**

- 2 Hackers could cash in when Windows XP is retired. | IBM partners with Google to push its Power platform.
- 4 Orange County sues an Indian outsourcer over a "fatally flawed" project. | BlackBerry may seek a new owner.

## **NEWS ANALYSIS**

- 6 Public-sector CIOs head for the exits.
- 7 Revelations about NSA surveillance could hurt the U.S. cloud industry.

## **OPINIONS**

- 11 Thornton May says there's one thing we know for certain about the future: It's coming.
- 32 Scot Finnie wonders whether Apple is OK.

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- 8 The Grill: Healthcare CIO Steve McManama
- 26 Security Manager's Journal: Data classifications meet the real world.
- 28 Career Watch
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## **COVER STORY**

- 12 Managing Chaos (As Usual). Our survival guide for IT leaders navigating the new business normal offers tips for staying a step ahead in a world fraught with volatility, uncertainty, complexity and ambiguity.
- 18 Open Your Data to the World. Public APIs let customers connect to you in new ways, but the interfaces must be easy for outside developers to work with.
- 25 Finally! HR Reps Who 'Get' IT. As the market for tech talent heats up, some companies gain a competitive edge with HR staffers who specialize in IT recruitment.

## **HEADS UP**

- 2 Like it or not, self-driving cars are on the way. | Linux turns 22.
- 4 Microsoft bets its mobile future on Nokia. | Dell sticks with Windows 8 for tablets.

## **NEWS ANALYSIS**

- 6 Data science "nerds" are now a permanent fixture in U.S. politics.
- 8 A collection of blunders led to Ballmer's demise.

## **OPINIONS**

- 11 Steven J. Vaughan-Nichols thinks you're kidding yourself if you refuse to believe that Windows 8 helps government spying.
- 32 Bart Perkins warns against buying your way to social media popularity.

## **DEPARTMENTS**

- 9 The Grill: Healthcare CIO Cynthia Nustad
- 27 Security Manager's Journal: Inexpensive priorities for 2014 budget
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## **FORECAST 2014**

- 16 Wring Value From Your IT Budget. Computerworld's Forecast 2014 survey offers a peek at what IT leaders will be thinking about next year. Most notably, 36% of the respondents said that their IT budgets will probably rise, and that investments in hosted services will outpace spending on in-house hardware and software. But they will still be challenged to do everything while containing costs.
- 22 Boost Your Mobile Bandwidth. As IT executives watch mobile devices and cloud-based systems mercilessly hammer their wireless and wired networks, many anticipate that they'll need to find ways to add bandwidth and keep traffic flowing in 2014 and beyond.
- 28 Nab the Honest IT Skills. The Forecast 2014 list of the eight IT skills that will be most in demand next year leads off with programming and application development in the No. 1 spot - again.
- 32 Master Disruptive Technologies. Meet three organizations that aren't afraid of upsetting the status quo. They're changing business processes, even strategies, with social media, the cloud, mobile and more.

## **OPINION**

- 36 Futurist Thornton A. May says in 2014, IT leaders will need to have regularly scheduled meetings that actively and aggressively seek to make sense of the changing world around them.

## **HEADS UP**

- 2 Could DEC'S demise offer lessons for Microsoft? | In a mixed IT job market, Boston and San Francisco shine.
- 4 Some say encryption is still the best security tool, despite the NSA's code-cracking. | Two Indian outsourcers top the list of L-1 visa users.

## **NEWS ANALYSIS**

- 6 With iOS 7 and two new iPhones, Apple may have what it takes to make further inroads in the enterprise.
- 8 Dell officials vow that the company will remain committed to its struggling PC business and keep making acquisitions after it goes private.

## **OPINIONS**

- 14 Paul Glen has advice on how to cope with difficult stakeholders.
- 40 Preston Gralla counters arguments in favor of breaking up Microsoft.

## **DEPARTMENTS**

- 10 The Grill: Verizon's Ajay Waghay
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### **COVER STORY**

- 14 Big Data, Big Storage. the era of big data requires new storage strategies. And thanks to faster and smarter tools, these approaches don't have to break the bank.
- 19 Cloud Storage for Everyone. The BYOD trend is driving increased use of personal cloud storage services. Is enterprise IT ready?
- 22 IT Leaders on the Edge. First-world tech executives can learn from the way CIOs in developing countries maintain connectivity and keep services flowing.

### **HEADS UP**

- 2 Larry Ellison's love of yachting irks Oracle users. | Stanford builds a computer with carbon nanotubes.
- 4 Fujitsu stands firm in the Unix market. | Microsoft wants one operating system for all devices.

### **NEWS ANALYSIS**

- 6 A New England utility outsources IT work to India.
- 8 BlackBerry's new owner may have to break up the company, say analysts.

### **OPINIONS**

- 12 Bart Perkins thinks every supplier relationship should start with a prenup.
- 30 Paul Glen says avoiding blame can hurt your career.
- 36 Steven J. Vaughan-Nichols looks at the Web at 20.

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- 9 The Grill: Taming databases with Gino Pokluda.
- 28 Security Manager's Journal: Email migration opened many security holes.
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### **COVER STORY**

- 16 Innovation vs. Maintenance. Many IT leaders admit their spending is too heavily weighted toward keep-the-lights-on projects. Here's how to tip the balance.
- 26 IT Gets Its Green On. IT can drive green projects by identifying opportunities for operational efficiency - and helping to build the business case.
- 30 Keep New Hires From Jumping Ship. IT-specific onboarding programs help savvy companies bring new hires into the fold and keep them there.

### **HEADS UP**

- 2 The 2020 Olympics may showcase IT. | SAP aims to thwart NSA spies.
- 4 Ballmer touts Microsoft's "devices and services" strategy. | IBM leads cognitive computing research.

### **NEWS ANALYSIS**

- 6 CEO Meg Whitman ties HP's woes to Microsoft's hardware push.
- 8 Microblogging will go under the microscope when Twitter promotes its IPO.

### **OPINIONS**

- 15 Thornton May is sure that the CIO job isn't on the brink of extinction.
- 38 Preston Gralla thinks Ford's Alan Mulally would be the wrong choice for Microsoft.
- 44 Scot Finnie also ponders Microsoft's future.

### **DEPARTMENTS**

- 10 The Grill: The VA's Dat Tran.
- 36 Security Manager's Journal: The ins and outs of extending DLP.
- 39 Career Watch
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## **COVER STORY**

- 14 Big Data Blues. The fact that corporations have access to reams of data about their customers stokes consumers' fears. Companies are responding with internal controls, open privacy policies, ethical codes and greater candor over how they're collecting and parsing personal data. But is that enough?
- 21 Forget Fingerprints. Iris recognition tools seem ready to break into the mainstream, particularly in banking and law enforcement, as prices drop and systems get easier to use.
- 26 Your Text Resume Is So Last Century. Goodbye, boring curriculum vitae. Today's tech resumes are tricked out with video, social and graphic elements.

## **HEADS UP**

- 2 Free OS X upgrades won't affect Linux, says Linus Torvalds. | Twitter runs on open-source tools.
- 4 Whirlpool opts for Google Apps. | Tech spending slows.

## **NEWS ANALYSIS**

- 6 Healthcare.gov was bound to stumble out of the gate -like most big IT projects.
- 7 By giving away OS X upgrades and iWork, Apple is challenging Microsoft to act.

## **OPINIONS**

- 12 Bart Perkins is all for global IT standards, if local constraints are accommodated.
- 34 Steven J. Vaughan-Nichols deems Windows 8.1 another Microsoft fail.
- 40 Paul Glen says IT leaders can't wield influence if they don't know what it is.

## **DEPARTMENTS**

- 8 The Grill: Becky Blalock on women in IT
- 32 Security Manager's Journal: Stumbling upon 30 unmanaged servers
- 36 Career Watch
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### **COVER STORY**

- 12 The Danger of Things Going Right. When IT isn't coping with catastrophic system failures or working on a major software deployment, the CEO might wonder what the CIO does all day. Here's how to make sure IT isn't undervalued.
- 19 Mobile's New Ergonomics. Mobile devices give freedom of movement to once-deskbound office workers, but they present ergonomic challenges of their own.
- 22 Perils of the Brand Specialist. Hitching your wagon to a hot technology may lead to lucrative job opportunities, but it can be risky. Have you met any dBase developers lately?

### **HEADS UP**

- 4 A new supercomputer uses SSD storage. | Marin County wants to ditch SAP.
- 5 Infosys pays \$34 million to settle visa fraud charges. | Apple plans to build a green factory in Arizona.

### **NEWS ANALYSIS**

- 6 Microsoft's plans for Office Web Apps are hazy.
- 7 The Senate tries to spur data center consolidation at U.S. agencies.

### **OPINIONS**

- 26 Thornton May says mobile computing has IT caught between a rock (users demand it) and a hard place (security is inadequate).
- 32 Scot Finnie has some thoughts on why Apple made OS X and its iWork office suite free.

### **DEPARTMENTS**

- 8 The Grill: Rosetta Stone CIO Pradeep Mannakkara.
- 25 Security Manager's Journal: It's policy-tweaking time.
- 28 Career Watch
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## **COVER STORY**

- 14 Fueled by Analytics. Ford is using big data to drive virtually every aspect of its global turnaround.
- 20 When to Pick a Private Cloud. Here's how to determine if your organization needs the security, control and performance that a private cloud offers.
- 24 Who Owns Mobility? Mobility touches multiple facets of IT - platform choice, application development, customer engagement. Does it make sense to put one person in charge of it all?

## **HEADS UP**

- 2 The Internet of Things is a headache for IT. | Building touch-based Office apps will challenge Microsoft.
- 4 BNSF Railway chugs to the cloud with Office 365. | Google envisions microphone/tattoos.

## **NEWS ANALYSIS**

- 6 Microsoft says "stack ranking" doesn't work here anymore.
- 8 Facing a post-silicon future, supercomputing hits a performance plateau.

## **OPINIONS**

- 13 Bart Perkins argues that benchmarking is often a waste of time and money.
- 32 Steven J. Vaughan-Nichols wonders if anyone can save Microsoft after Steve Ballmer's dreadful tenure as CEO.

## **DEPARTMENTS**

- 10 The Grill: Intel CIO Kimberly Stevenson.
- 27 Security Manager's Journal: Surfing on a server is a big no-no.
- 28 Career Watch
- 31 Shark Tank

### **COVER STORY**

- 12 Why Few want to Be The CIO Anymore. More than half of the respondents to our survey say they don't aspire to be the CIO. Here's why politics, relatively low pay and lack of prestige can sink CIO aspirations.
- 17 The Help Desk Is Hot Again. If you thought tech support was doomed to be outsourced or automated, think again. Hiring for the help desk is up.
- 22 Out-of-Pocket Expense. IT spending is up again, but training budgets haven't kept pace. Many IT pros are taking matters into their own hands.

### **HEADS UP**

- 2 A new app store could bring supercomputing to small businesses. | Microsoft vows to tell customers about NSA data request.
- 3 Hackers may find many new targets as the Internet of Things expands. | Consumers aren't touching touchscreen laptops.

### **NEWS ANALYSIS**

- 4 The U.S. is in danger of falling behind in the race to build exascale systems.
- 5 NSA snooping doesn't deter IT execs from venturing into the cloud.

### **OPINIONS**

- 16 Thornton A. May sees a bright future for IT pros who strive to integrate value-creating IT behaviours throughout the enterprise.
- 28 Paul Green says you're putting your career in jeopardy if you expect your employer to take responsibility for your training.
- 32 Preston Gralla thinks companies like Google and Amazon could save the economy by pursuing seemingly off-the-wall research.

### **DEPARTMENTS**

- 10 The Grill: CIO-turned-COO Michael Relich.
- 30 Shark Tank