

## November/December 2007

- » Disruptive Technologies Are Reshaping Costs
- » Corporate Social Responsibility
- » Ergonomics and Productivity Matters

## CEO PERSPECTIVE



### Oracle OpenWorld 2007 Keynote

Watch Jonathan Schwartz unveil new Sun xVM virtualization technologies and discuss Sun's latest Solaris partnership with special guest Michael Dell. [MORE »](#)

[Jonathan's Blog »](#)

## UPDATE YOUR PROFILE

Want to get information tailored to your needs? Update your profile now.

## YOUR NEWS

### The 'Warrior' in Jonathan Schwartz

A tough background, college scholarship, and near-death experience went into making Sun's CEO the driven success he is today.

### McNealy Minute: On Procurement

Why pay \$150 for a \$15 hammer? Scott McNealy talks to W.W. Grainger's CTO about secrets to reducing procurement costs.

[LISTEN !\[\]\(3342c215b2a8b663596a81468d5dc314\_img.jpg\)](#)

## DISRUPTIVE TECHNOLOGIES ARE RESHAPING COSTS

The message from Sun's recent Customer Engineering Conference was loud and clear: Demand for massive-scale computing power is growing rapidly. Energy consumption and costs are on the rise. Disruptive technologies are reshaping costs — and opening new opportunities for innovation, growth, and eco responsibility.

[MORE »](#)

Don Grantham  
EVP, Global Sales and Services  
Sun Microsystems, Inc.

[Voice from the Field »](#)  
Don Grantham's Executive Perspective



## LEADING VISION

### Good for the Planet, Good for Business

A transparent and metrics-driven culture of corporate social responsibility isn't just good for the planet. It's good for the business, too. Sun's Ingrid Van Den Hoogen explains.

[MORE »](#)



## EXPERT INSIGHT

### An Ounce of Prevention Worth a Pound of Productivity

Poor ergonomics can cramp workforce productivity. Dr. Robert Goldberg of the University of California explains how "enlightened self-interest" should guide an organization's approach to health and ergonomics in the workplace.

[MORE »](#)



## INDUSTRY FOCUS

### Compared to IBM, Sun Blade Performance Is off the Charts

In need of greater processing speed and capacity, financial data supplier StockCharts.com installed 10 Sun Blade 8000 systems to replace 28 IBM blade servers. The result — more than double the performance and 77 percent fewer systems to maintain.

[MORE »](#)

## Sustainable IT Made Easy

Eco responsible computing costs a fortune, Right? Wrong! Get tips from Gartner and Sun experts on simple steps you can take today.

- » [View the Webcast](#)
- » [Read the Newsletter](#)

## ZDNet: Sun's Green Enterprise

The tech media provider looks inside Sun's energy efficient datacenters, OpenWork, and other Sun eco initiatives.



## Schwartz Top CEO Blogger

*Network World* says Sun's CEO stands out in the corporate blogosphere.

## Disruptive Technologies Are Reshaping Costs



Don Grantham

I was excited to attend our Customer Engineering Conference (CEC) in Las Vegas in October, as it's our largest annual gathering of our worldwide engineering community — thousands of customer-facing engineers from all corners of the globe.

The theme of the conference was innovation and growth, sparking discussions on the evolution of the market, disruptive technologies reshaping costs, and how they fuel growth for Sun, our partners, and our customers.

A recurring topic was the explosive growth in computing needs and the increasing demand for network infrastructures to meet those needs — what Sun refers to as Redshift. There was also buzz on the growing needs of our customers for energy efficiency and eco responsibility — or

what's often called “green IT.”

### Related Resources

- » [Sun's Redshift Wiki](#)
- » [InformationWeek on Redshift Theory](#)
- » [eBay Drives Explosive Growth with Sun Technology](#)

These are two key technology areas where disruptions are occurring with our customers, creating a significant economic impact on your business.

### Redshift: Meeting the Demand for Massive Computing Power

In conversations with you, our customers, I'm hearing what keeps you up at night. On one hand, your servers are running at low capacity. On the other, your datacenters are running out of space and power. Infrastructure is poorly utilized, yet datacenters are bursting at the seams. How can this be?

The Web has catalyzed an explosion of participation-based innovation. Whether it's Web 2.0 — or as Sun calls it, the Participation Age — the core idea is the network effect: systems improve the more people use them. The result is an increased demand for network infrastructure being driven by society, governments, enterprises, and communities as millions of people join the world network each week.

Sun's Redshift theory of computing, as defined by Sun CTO Greg Papadopoulos describes these rapidly growing applications. I highly recommend reading this [InformationWeek report](#) for a good perspective on Sun's Redshift theory.

In short, Redshift is about understanding where you can cut costs and how you can deal with runaway growth. In fact, you may be using a Redshift infrastructure already through high-performance computing grids or software as a service (SaaS) vendors.

What does this mean for your technology infrastructure? New content, new consumers, new devices, and new services equal new demands on the network. This drives increased demand on and complexity for your infrastructure: mobility, reliability, network management, power reduction, virtualization, security, Web services, etc. The list goes on! Get these right, and you have the competitive advantage.

### Green IT: Reducing Datacenter Energy and Space Consumption

Many of you are surprised when I tell you 40 percent of the cost of running a datacenter is energy consumption. Energy costs are increasingly impacting the bottom line. Practical impacts of energy are hitting customers who are running out of space, power, and cooling in datacenters. Soon, if not already for businesses in major cities, it will cost more to cool and supply power to a server than to buy the capital equipment.

Don't just take our word for it. Analyst firm [Gartner](#) is also covering this trend and the often simple steps companies can take toward more efficient and eco responsible computing.

Leading companies are beginning to measure their global impact and environmental footprint, and to put in place programs to lessen that impact. Using an example close to home, Sun recently published its [2007 Corporate Social Responsibility \(CSR\) Report](#), demonstrating our commitment to transparency and our philosophy of “Innovate, Act, Share” — while underscoring Sun’s commitment to CSR and eco responsibility.

Sun’s CSR strategy is an integral part of our business objectives to drive positive social, economic, and ecological change. We expect the number of companies that do this to continue to grow yearly as stakeholders use this as a factor for investments and purchases — and as attention to environmental issues continues to grow. Increasingly our customers are looking at their global impact and environmental footprint, and more of them are taking action to improve eco responsibility.

[eBay is an excellent example of a company](#) responding to both of these trends. eBay is a Sun customer and participated in a customer panel at the recent Customer Engineering Conference. The panel explored future datacenter architectures with massive scale, power density, virtualization, and grid management in the context of hyperscale datacenters (an element of the Redshift theory).

As a traditional enterprise that’s experienced explosive growth over the years, eBay is at the heart of Redshift. Additionally, eBay implemented Sun’s Niagara servers, designed to be eco responsible and reduce power consumption and associated costs in the datacenter.

These trends towards Redshift and eco computing impact the architectural advice that Sun provides to you, the customer, and how you map it back to your business objectives. We’re aligning R&D and our top technical resources around these areas to provide you with the best innovation and cost-effective solutions in the market.

As I’ve said before, I really value this forum as a two-way dialogue. [Do please feel free to drop me a line](#) with any comments or questions.

Regards,

[Don Grantham](#)  
Executive Vice President  
Global Sales and Services  
Sun Microsystems, Inc.

---

## Good for the Planet, Good for Business



Ingrid Van  
Den Hoogen

Aligning corporate social responsibility with business goals is crucial both to maintaining your company's success today and sustaining it for the future. Sun Sr. Vice President, Brand, Global Communications and Integrated Marketing, Ingrid Van Den Hoogen shares with Sun *Executive Boardroom* readers the importance of transparency and accountability to society, the planet, and a company's bottom line.

**Q: How does Sun define corporate social responsibility? What does it encompass?**

**Van Den Hoogen:** We believe that what's good for the planet is also good for business. For us, corporate social responsibility (CSR) is a strategy that integrates with

business objectives to create positive social change, minimize environmental impact, and generate business value. It involves an ongoing commitment to behave ethically and contribute to economic development while improving the quality of life of our workforce, the community, and society at large. Our CSR strategy centers around three key pillars — innovate, act, and share.

With regard to innovation, we want to make sure that the products and technologies we create are innovative and provide solutions to aid in areas like energy efficiency and sustainability. In the "act" area, we work to ensure we're socially responsible, so we measure things like carbon footprint, output of our buildings, activities in our supply chain, and we make those metrics transparent to the world.

With regard to sharing, we've always been based on the principles of sharing and openness. We take the best practices we've learned and share them with communities around the world, customers, and partners in vehicles such as our [2007 Corporate Social Responsibility Report](#).

**Q: What are the components of a comprehensive CSR effort?**

**Van Den Hoogen:** Metrics are critical. There are many ways in which you can measure your responsibility. You can look at your products, technology, or services. Are they energy efficient? Do you share technology with communities around the world? How do you interact with your supply chain? What goals do you set for employees? What is your culture around ethics and integrity?

For most companies, customers and partners are the #1 constituents, so you can include them in your metrics and work to improve upon them. Almost anything can be measured. Once you have metrics in place, make sure those goals are made transparent to all of your stakeholders so that you are held accountable.

**Q: How is CSR different from philanthropy?**

**Van Den Hoogen:** Philanthropy is a strategy of giving away money, products, or technology to people or organizations that need it. CSR is about how your company conducts business with all of its various stakeholders. The two are complementary but quite different.

**Q: How does a company ensure that CSR is more than PR?**

**Van Den Hoogen:** CSR is something you live within your company. We make that transparent by publishing results that speak for themselves. No company has perfect CSR metrics, but you can make sure that people are aware

### Related Resources

- » [Sun's 2007 Corporate Social Responsibility Report](#)
- » [CSR: Leadership for Sustainability in a Networked World — BusinessWeek](#)
- » [Sun CSR Awards and Recognition](#)
- » [Sun CSR Report Video](#)

of the efforts you have in place. I think we were first in the market to publish our building lighting and datacenter energy usage and open source those results to tell others how they can cut down on usage. We work to ensure that customers, shareholders, and employees are aware of the actions being taken to ensure that the company is more socially responsible.

**Q: To what extent do investors care about a company's CSR?**

**Van Den Hoogen:** Investors care a lot, so there is business value associated with being socially responsible. There are mutual funds based on CSR indices. In the last year, top investment firms looked at CSR metrics to see how active companies were and assigned risks based on that. If you don't have a CSR program in place, investors may be less likely to invest. We've all seen examples of consumer companies who've experienced damaged brands due to lowered standards of conduct somewhere in the supply chain. Whether the issues being addressed are environmental, social, or other, chances are that if you're addressing these factors, your bottom line will benefit.

**Q: How does a company ensure that partners and companies in its supply chain adhere to the same standards?**

**Van Den Hoogen:** Companies that are socially responsible want to align with other companies that are socially responsible. If any one link in your supply chain is weak with regard to CSR, the whole chain is weak. Sun has a code of conduct, our contract manufacturers adhere to industry standards, and we are building our systems so that we can measure up and down the complete supply chain. Everybody in the supply chain is responsible for the output of a company.

*“Everybody in the supply chain is responsible for the output of a company.”*

— Ingrid Van Den Hoogen,  
Sr. Vice President,  
Brand, Global Communications and Integrated  
Marketing,  
Sun Microsystems

It's also important to remember that you are likely part of someone else's supply chain. We're all both consumers and suppliers, and there are many companies out there today who will simply not buy from you if you don't have published CSR metrics, regardless of how good your products are.

Many companies want to see that you are transparent, open, and accountable, so there is a risk of being cut out of your own supply chain if you don't have a CSR report. That underscores why CSR is about your bottom line. If it's good for the planet, it's good for business. Here is some data we learned about our top 50 Solaris customers:

- 80% are undertaking efforts to reduce energy consumption or greenhouse gas production
- 72% publicly disclose greenhouse gas emissions
- 70% publish annual CSR reports
- 62% have greenhouse gas or energy-reduction targets

Thus, it behooves executives to know what their top customers are doing and what they care about.

**Q: Does company size matter when it comes to instituting a CSR program?**

**Van Den Hoogen:** Whether your company has one person or more than 100,000 people, there are actions you can take toward social responsibility. All companies have a responsibility to measure the impact their business is having on the world. Any size company can ask itself how it needs to innovate, act, or share.

**Q: Sun talks a lot about transparency. How does that relate to social responsibility?**

**Van Den Hoogen:** Sun has fully embraced transparency as part of its culture. Our CEO Jonathan Schwartz is probably the [#1 CEO blogger](#). We want to make sure that everything we do can be measured and shared. From 4000 employee blogs to articles we publish at conferences, we make information available so that people can see what we're thinking at any point in time. So while these aren't specific corporate social responsibility metrics, they help us be better corporate citizens by being transparent to shareholders, customers, and employees.

While all of your audiences are critical, employees are especially important because CSR requires all hands on deck. Most employees value working for a company that has high integrity, and return rates of employees who have left will verify that.

Also, by publishing CSR metrics in your report, employees can see that nothing is hidden — everything is out in the open. Customers say that they work with us because they see that we are not just publishing numbers, but that we are living this transparency and openness as part of our brand.

---

### **About Ingrid Van Den Hoogen**

Sun Sr. Vice President, Brand, Global Communications and Integrated Marketing Ingrid Van Den Hoogen has led Sun through a unique brand transformation that positions Sun as a leader in the Participation Age for the next decade. Prior to leading Sun's corporate branding efforts, she led software strategic marketing where she incubated Project Orion (the Java Enterprise System) and led the effort to energize the Java brand, which resulted in a new consumer touchpoint for Sun, java.com, and a new Java developer community site, java.net. Ingrid joined Sun in 1987.

## An Ounce of Prevention Worth a Pound of Productivity



Dr. Robert Goldberg

Employee health is inextricably linked to productivity. Sun recently caught up with ergonomics expert Dr. Robert Goldberg, M.D., of the University of California, San Francisco, to understand how ergonomic and workplace issues affect the bottom line.

### **Q: What are the potential costs of poor ergonomics in the workplace?**

**Goldberg:** The most conservative research estimates suggest that ergonomic problems in the United States are costing billions of dollars. It's important to understand what

ergonomics is.

It's more than just making a desk or computer screen comfortable for a user. It encompasses the entire interaction between workers and their workstations and environments.

Ergonomics is an important subset of workplace health. Environmental factors such as lighting and air conditioning play important roles in the state of general musculoskeletal health. Other things that contribute to ergonomic problems include repetition, force, and the pace of work.

### **Q: What's the correlation between workplace ergonomics and employee productivity?**

**Goldberg:** Enlightened self-interest can go a long way when employers institute workplace health and ergonomics initiatives. Essentially, the research supports the supposition that a healthy and positive workplace tends to have higher levels of productivity — as well as less absenteeism and staff turnover.

### **Q: What are the new ergonomics complaints in today's workplace?**

**Goldberg:** We still see a lot of long-standing issues in the hands and wrists, but now we see more problems centered in the upper body areas like the neck and shoulder regions. These upper body problems are often caused by working in front of a screen for long periods of time or by excessive use of the mouse. That's a problem because the upper body is already susceptible to strain because it's the region in the body where many people tense up because of stress.

To manage these problems, a properly adjusted workstation will help maintain proper postures and movements with the hands, arms, and neck. Employers should ask themselves whether it's always necessary for an employee to do the same task throughout the day. This is often unavoidable in the knowledge economy, but making sure that people stretch and take breaks can have a positive impact on employee health and productivity.

### **Q: Are there health and ergonomic advantages to working remotely?**

**Goldberg:** Yes, there are a number of health and ergonomic advantages to working remotely — all of which can help employees be more productive. Many of these benefits are psychosocial. Remote workers are often less stressed because they don't have to fight traffic, and they can presumably work in a comfortable environment that provides the flexibility to take breaks. These factors can help decrease musculoskeletal disorders and help people perform their jobs better. There are recent studies that remote workers have greater job satisfaction and stay at their jobs longer.

### **Q: What are the ergonomic and health problems associated with working remotely?**

#### **Related Resources**

- » Health, Safety, and Wellness: Sun's 2007 Corporate Social Responsibility Report
- » American College of Occupational and Environmental Medicine
- » University of California Ergonomics Program

**Goldberg:** One of the downsides of telecommuting can be found in situations where people get totally absorbed in their tasks and work continuously without taking breaks. This can create problems — if not immediately, then later down the road — by not giving the eyes, brain, psyche, and musculoskeletal system a chance to recover from the intensity of work.

I should also add that the psychosocial and ergonomic factors that affect a worker in the office are also likely to be found in the remote workplace. This can present more problems for the telecommuting worker because few companies provide their offsite employees with ergonomic assessments.

**Q: What do you think about the Sun offsite ergonomics program, which uses digital photos and conference calls to assess remote workplaces?**

**Goldberg:** It's fabulous. This means that Sun can do remote, Web-based ergonomic assessments without intruding into an employee's home. Presumably the Sun program helps remote employees stay healthy by setting up comfortable workstations. But most companies with remote workers do not go to these lengths to provide ergonomics oversight. I suspect this may change, though, with the advent of remote communications technologies.

**Q: What are some of the best ergonomics practices in the traditional office workplace?**

**Goldberg:** This may sound intuitive, but it's critical that new employees are given some basic training and education on ergonomics, along with instructions on how to set up and use their workstations. It also helps to encourage employees to report discomfort to their supervisors early so that an ergonomic assessment and early intervention at the workstation can be undertaken before the discomfort becomes a medical condition or an injury.

**Q: What role does prevention play in workplace health and ergonomics?**

**Goldberg:** What our mothers told us about an ounce of prevention being worth a pound of cure is true when it comes to health in the workplace. Research evidence tells us that prevention — such as setting up workstations appropriately — usually pays for itself many times over.

That said, a person may still develop workplace-related injuries, regardless of how many preventative measures are taken. It's like driving: No matter how careful you are behind the wheel, statistically you will probably be in a car accident at least once in your life. The trick is to reduce the potential for risk.

---

### **About Dr. Robert Goldberg**

Robert Goldberg, M.D., is the director of the occupational medicine and environmental medicine program at the University of California, San Francisco, School of Medicine where he is a clinical professor of medicine. He has published numerous scholarly papers on occupational health and ergonomics, a field in which he has received several honors. Dr. Goldberg also is a member of various workplace health and safety associations.