

# St. Louis Technology News

**THE TECHNOLOGY SPIRIT OF ST. LOUIS™**

TECHNOLOGY SOLUTIONS AND STRATEGIES FROM ISPIRIAN, SYLLOGISTEKS® AND ULTRATECH



## Tomorrow's IT Talent

SylogisTeks establishes a scholarship program to encourage local business students to major in IT.

**I**T research firm Gartner, Inc., says that the U.S. is suffering from a massive shortage of IT skills that is threatening business growth. As the Baby Boomers start heading into retirement, fewer young students are enrolling in science, technology, engineering or mathematics programs. As a result, there are simply not enough technical people available to meet business demands.

“For many young people, IT is an unattractive career option — they view it as hard work and ‘uncool,’” said Lisa Null, Corporate Communications Director and Scholarship Program Liaison, SylogisTeks. “There’s not an ade-

quate pipeline of local people emerging with degrees in computer science or related disciplines. Future IT projects will face staffing constraints more than budgetary constraints.”

As an IT staffing firm, SylogisTeks has already begun to feel the pinch. But rather than simply worrying where tomorrow’s IT talent is going to come from, SylogisTeks is doing something about it.

“We’re working with local colleges and universities to establish scholarships for talented business students who are interested in IT,” Null said. “Our goal is to help the best and the brightest meet their educational objectives, and to raise awareness among students of the benefits of a career in IT.”

### Skills in Demand

SylogisTeks has established its first scholarship opportunity with Southern Illinois University Edwardsville (SIUE). The SIUE School of Business offers undergraduate and graduate degree programs in Computer

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## Tomorrow's IT Talent

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Management & Information Systems (CMIS), providing a solid background in the latest technologies.

"SyllogisTeks recruits our graduates for placement in leading organizations in the St. Louis area because they are very high-caliber IT professionals," said Judy Woodruff, Director of Development, SIUE School of Business. "When Lisa called me and said SyllogisTeks was interested in establishing this program, I felt it was a very natural extension of our relationship. The high-tech field is growing rapidly and SyllogisTeks is interested in making sure that there are good employees entering the workforce. This scholarship program should help attract more students to IT."

Tomorrow's IT professional will need more than technical skills. IT has become an integral part of business, and organizations are looking for professionals who understand business as well as technology. SIUE's CMIS program produces the kind of versatile, multi-disciplined professionals who will succeed in the IT marketplace.

"The SIUE School of Business is one of only four schools in the area that is accredited by the Association to Advance Collegiate Schools of Business — that's the accrediting body for business schools worldwide," said Woodruff. "Only about 10 percent of business schools have achieved accreditation, so we're very proud of this distinction."

The purpose of the SyllogisTeks scholarship is "to provide assistance in educating students to become well-versed in the most current technologies so that they can seek successful careers in the field of information technology." It is awarded to a full-time junior or senior who has declared a business

**Saint Louis University is currently looking for a recipient for its SyllogisTeks-sponsored scholarship. Interested students should contact Amanda Rainey, Director of Stewardship, Saint Louis University Advancement Division, 221 N. Grand, DB Suite 310, St. Louis, MO 63103.**

major in IT and has an overall grade-point average of at least 3.0 on a 4.0 scale.

### **Cream of the Crop**

The first SIUE CMIS student to receive the SyllogisTeks scholarship is Amy Bach, who received an overwhelming endorsement from the selection committee. Amy is a "non-traditional" student who thoroughly researched the potential for a career in IT before choosing her major.

"As an older student, I wanted to be sure of my career plans," she said. "I was interested in information technology and decided that with the strong future job market and many career options that IT was a good choice for me. I chose the CMIS degree over the computer science degree because I enjoy the business aspects of IT."

Amy says that many students — particularly women — don't realize that the CMIS degree is business-focused rather than purely technical. She believes the SyllogisTeks scholarship program will increase awareness and encourage more students to explore the CMIS program.

"The more scholarships available

in a certain program the more students will be drawn to that degree," she said. "Scholarship opportunities signify a demand for the field and a high regard for the profession. Scholarships also acknowledge the accomplishments of exceptional students, which in turn acknowledges the exceptional program to which the student belongs."

Because SyllogisTeks has established the scholarship program primarily to benefit the St. Louis business community, the SIUE scholarship requires that the student be a resident of the St. Louis metropolitan area. SyllogisTeks has also just set up a scholarship with Saint Louis University, and plans to establish similar programs with local business schools.

"Our customers need software developers, business analysts, network architects, security specialists and more, as well as technicians with specific technical competencies and certifications," said Null. "To meet these demands, we need to foster an environment that encourages students to enter the IT field. Our hope is that this program benefits students, universities and local businesses alike."

### Enterprise-Wide Encryption Urged

Organizations with a strategic, enterprise-wide approach to encryption experience fewer data breaches than those that rely on tactical point products, according to a recent survey of nearly 1,000 U.S.-based IT and business managers, analysts and executives.

The study by The Ponemon Institute shows that 84 percent of organizations surveyed suffered at least one data breach over the last 12 months, with 44 percent of organizations suffering two to five breaches during the same time period. However, organizations with an enterprise encryption strategy showed a statistically significant lower rate of data breaches.

### Compliance Spending Shifting

Companies will spend more than \$32 billion on governance, risk management and compliance (GRC) in 2008 — an increase of 7.4 percent over 2007 — according to a recent report from AMR Research. The firm said it expects spending on Sarbanes-Oxley (SOX) compliance to grow only 2 percent to \$6.2 billion.

AMR Research said it is the first time since it began conducting this study in 2003 that executives have shifted their GRC budget focus to operational and enterprise risk management — making SOX and other regulatory compliance programs a necessary “to-do,” but not a top-of-mind initiative. More than 30 percent of companies reported that better management and mitigation of risk in the business is the most influential issue driving their GRC investment in 2008.

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## got power?

*UPS systems help keep business going when the lights go out.*

In February 2008, a power outage left many Florida businesses in the dark, including the greater Miami area, parts of the Tampa Bay area, Orlando and the Space Coast. According to Florida Power & Light (FPL), human error was the primary factor immediately responsible for the event.

A field engineer diagnosing a switch that had malfunctioned at FPL's Flagami substation in west Miami disabled two levels of relay protection without authorization. A fault that occurred during the diagnostic process caused an outage that in turn prompted safety mechanisms to shut down part of FPL's Turkey point nuclear power plant and two other generation plants in FPL's system. Total impact to

the system was a loss of 3,400 megawatts of generating capacity.

Power was restored fairly quickly. However, power problems of any duration can be devastating to data centers. Every IT infrastructure relies on electricity for its continuous operation, and the absence of clean, reliable power brings the potential for downtime and damage to sensitive equipment. In data-intensive industries such as IT, telecom, healthcare and finance, even a few seconds of downtime can mean huge losses.

Growing concern over the reliability of the U.S. electric grid — along with continued growth in the number and size of data centers — is prompting organizations to increase their investments in uninterruptible power

supply (UPS) systems. According to market analyst firm Frost & Sullivan, the world UPS market earned revenues of \$6.25 billion in 2006, and could reach \$11.11 billion in 2013.

### **Why You Need a UPS**

Detectible power outages account for only a small percentage of the power problems that plague data centers. Surges, sags, noise, fluctuations and other interference can cause everything from subtle computer lock-ups to burnt hardware components — and, ultimately, to damaged data integrity.

Surge suppressors address only power surges, while having no effect on under-voltage and variance conditions. Backup generators, which pro-

vide emergency power within 10 to 30 seconds of electric grid failure, address complete loss of utility power but provide no protection against the other power disturbances. UPS systems help fill the gap, protecting digital equipment against damage due to power abnormalities and providing an instant power source during sags and short-term outages.

UPSs vary greatly in quality and features. Standby UPSs simply switch to battery power when a power outage is detected, and are best suited for home and small office computers. Line-interactive UPSs boost or moderate utility voltage as necessary before allowing it to pass to protected equipment, making them useful for non-critical enterprise devices. Online UPSs isolate equipment from raw utility power and all of its irregularities, and therefore represent the only real choice for critical IT equipment.

## Choosing the Right Solution

Unfortunately, a lack of awareness often hinders organizations from purchasing the right UPS equipment. Many organizations underestimate their power requirements, and are unaware of the risks associated with sudden battery failure or non-availability. Others view UPSs as generic products to be purchased based upon price, relying on inadequate standby UPS systems.

Experts say organizations should consider advanced features such as battery management, automatic shutdown and scalability in their UPS purchases. Power management systems can continuously monitor the health of the UPS and its batteries, orchestrate the graceful shutdown of IT systems during power outages, and provide advance notice of impending trouble. Space-saving rack-mount systems provide flexible and scalable power quali-

ty for high-density data center environments.

Rising power costs and environmental concerns are bringing the concept of energy-efficient UPS systems into the limelight. In addition to ensuring the availability of high-quality power, energy-efficient UPSs help reduce energy consumption in the data center by automatically cutting power to peripherals when the computer is in "sleep" mode. Although energy-efficient solutions cost more than other UPS systems, they typically pay for themselves through lower energy costs.

The electric power grid is susceptible to a wide range of problems, from human error to hurricanes. Organizations should take steps to ensure that their IT equipment is adequately protected by a properly scaled and reliable UPS system.



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# Transforming Backup

**Disk-based CDP revolutionizing backup and recovery.**

**T**ighter legislations on data retention and recovery have led IT managers around the world to rank data protection among their chief storage management challenges. Industry experts say an emerging technology known as continuous data protection (CDP) is about to revolutionize the very notion of backup and recovery, and constitutes a major step toward achieving seamless business continuity.

Tape-based backup systems — the traditional go-to option for most organizations — can be tricky to implement and maintain. In addition, tape systems are notoriously unreliable, with failure rates in backup or recovery running as high as 50 percent, according to industry analysts.

Worse, the periodic nature of tape backup schedules leaves a gap in data protection. The most recent data —

typically the data with the highest value in terms of business continuity — is frequently left unprotected.

## **Closing the Backup Window**

CDP can help change all that. Also known as continuous backup, CDP uses hard disks — the same kind of drives used in PCs — as the backup medium. Instead of using a rigid backup schedule, CDP systems constantly replicate data in real-time to preserve a record of every transaction that takes place. Unlike other backup solutions, CDP doesn't require organizations to halt normal business activities. With CDP systems, backup windows become irrelevant because backup is occurring all the time.

Traditional tape backups are usually completed once a day, and many organizations supplement that with snapshots every four hours or so. But

with these conventional backup systems, organizations can only restore to the time of the last backup. Even if a data loss occurs only two hours after the most recent snapshot, that can still represent a significant loss.

CDP allows companies to restore data instantly, exactly as it existed at any point in time, and to recover business applications in just minutes. What's more, installation of CDP hardware and programming is straightforward and does not put existing data at risk.

### Picture This

As the name implies, snapshots are like a camera set to take pictures periodically. CDP, however, is more like a video camera that is always running. CDP systems essentially make a rolling journal or index of all data changes, which are time-stamped the moment they occur.

Because CDP systems back up data as changes occur, organizations have minimal data loss at the time of restore. If a hacker or virus corrupts all data at, say, 1 p.m., an administrator can retrieve the data as it existed at 12:59 p.m. The CDP will present a new set of virtual disks, which can be instantly restored and used to restart business applications.

There are several different approaches to CDP, depending on the vendor. Some products are software-based, while others are appliances. They can be either host-based or network-based, operating on either a block, file or volume basis. Some are implemented as in-band or out-of-band appliances, while others are application-aware. Some are agentless, while others require host-based agents and/or drivers.

### The Business Case

The business case for CDP over traditional backup solutions seems solid. Disk-based backup is faster, cheaper and more efficient than tape backups. In addition, CDP solutions place less demand on system resources or network bandwidth by writing changes to disk and recording only altered bits rather than entire files.

CDP can also be an ideal solution for protecting data that lives on the edge. The edge is defined as mobile and laptop users or remote offices not tethered to corporate networks, or desktop data that is frequently not included as part of the backup window. A recent statistic indicates that 93 percent of corporate data lives on the edge unprotected.

The market for CDP products is expected to grow as businesses discover the advantages of maintaining a continuous journal of backups or archives generated over time. CDP can help organizations avoid serious injury to the business due to lost data, damaged files or extended downtime.



## Funny, it doesn't look like a smoking gun.

Cell phones, GPSs, PDAs and other handheld devices have become practically indispensable as business and personal productivity tools these days. In many cases, they can also be repositories of a variety of dirty little secrets in the form of data, text messages and photographs. As such, they have become increasingly important in a broad range of criminal and civil investigations.

Handheld devices are really tiny computers with their own operating systems, file systems, file formats and methods of communication. Performing a forensic examination on one of these devices takes special software and special knowledge of the way they work, as well as where possible evidence could be stored.

Ispirian Incorporated's computer forensic experts have the specialized tools, training and expertise to properly identify, collect and protect evidentiary data from handheld devices. Call us today to learn more.



*Ispirian is a member of the High Technology Crime Investigation Association (HTCIA).*



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# where are the holes in your security?

According to Gartner, 40 percent of small and mid-sized businesses that manage their own security and use the Internet for more than email will be successfully attacked — and more than half of them will never even know it. Why? Because hackers know that effective security can be too costly and time consuming for most small businesses to implement successfully.

That's why UltraTech Resources has developed UltraShield™, a managed security offering that helps ensure your critical systems and data are protected. UltraShield combines a state-of-the-art security appliance with focused monitoring and management at a reasonable price to provide a solid line of defense against threats ranging from hacking attempts and denial of service attacks to phishing and viruses.

To learn more about UltraShield, contact an UltraTech representative today at 877.235.7698



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