

Winter 2005

IT challenges on a global scale

In this issue ...

IT challenges on a global scale cover

Government Watch:
spam update 3

Company Watch:
10th anniversary 5

Industry Watch:
technology in review 7

Communications, security, systems maintenance. The IT challenges are the same for a global relief organization as for a local business. The difference? The logistics of dealing with large distances, limited resource availability, inhospitable weather, an unpredictable infrastructure, and a demanding mission.

Shelter for Life (SFL) deals with those challenges on a daily basis. Headquartered in Oshkosh, Wisconsin, SFL is an international relief and development organization in operation since 1979 to help poor and suffering people affected by conflict or disaster to rebuild and improve their lives and communities. Since the year 2000, SFL shelter programs, infrastructure reconstruction, and

community development have benefited more than a million people in five disaster-stricken countries. SFL is presently working in Afghanistan, Iran, Iraq, Sri Lanka, and Tajikistan. In the past, SFL has worked in Angola, Burundi, Honduras, India,

actual construction work is done by local residents of the communities being rebuilt. SFL believes that using local workers is critical to the success of its programs. The organization operates under guiding principles that stress the importance

of:
working together with communities in program design and implementation; respecting local cultures and traditions; helping communities to become self-sustainable; strengthening communities through knowledge transfer; striving to provide cost-effective, disaster-



Kosovo, Macedonia, Pakistan, and Western Sahara.

SFL employs about 30 field workers from western developed nations to manage projects, but the

resistant, and sustainable shelter solutions that are culturally appropriate; introducing appropriate and innovative solutions; providing economic benefit to local populations; using local resources,

Continued on page 2...

IT challenges ...Continued from front cover

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2

labor, and technologies; and encouraging small enterprise development. These are worthy principles, indeed, but ones that can be challenging for IT administrators.

Communications

The biggest challenge, according to David Rosenfield, who operated a one-man IT department for SFL before joining ZyQuest as a consultant, is maintaining communications.

“Communication is a big challenge when you’re dealing with a lot of ex-patriot workers out in the field. A lot of them aren’t even in any major city. They’re out in some town in the middle of nowhere, say in Afghanistan. They don’t even have electricity. And yet communications are absolutely vital to operations. So that’s the biggest challenge: how to keep the lines of communication open. Because once the people in the field lose touch with HQ and people coordinating things, they start to feel like they’re forgotten and neglected. And they need money and supplies transferred to them. They need to know that everything they need is going to get there,” Rosenfield explained.

The solution? Satellite phones, for the most part. They work any place in the

world, thanks to a couple dozen satellites in high orbit. The system began as a private commercial venture, but was never really successful, and the company was about to scuttle the satellites when the Defense Department stepped in at the 11th hour and took over the system. Satellite phones are now available only to government agencies and a few private organizations, such as Shelter for Life.

Each phone costs about as much as a laptop computer, and the service runs about several hundred dollars a month per phone. But the calls themselves cost only about 99 cents a minute, when going from one satellite phone to another. So they aren’t cost prohibitive.

In addition to making phone service available anywhere in the world, satellite phones can be connected to a laptop and used to transmit e-mail. It’s clumsy and can take five or six calls before you get a strong enough connection to actually retrieve the e-mail. But when you’re working in isolated parts of the world, even clumsy satellite communications are welcome.

The biggest problem with the basic satellite system is that it can transmit only

text e-mail. To improve its satellite communications and allow the transmission of attachments, SFL upgraded its system by purchasing satellite Internet connections about two years ago. The system uses a satellite transmitter that can negotiate an Internet connection through a geo-stationary satellite. Rosenfield commented, “It’s actually a very decent Internet connection – not quite as fast as a broadband connection with DSL or cable, but pretty close. So basically, the field workers can plug that into their power generator and network their computers to it, and they have an Internet connection like they were in an office in the U.S. They can get e-mail attachments, web, instant messaging.”

Rosenfield noted that this type of real-time communication would have been impossible a few years ago. “Five years ago, the idea of having any type of real-time communication to the field – places like Taloqan or Faizabad, in Afghanistan – would just be unheard of. We’re talking about places that are completely and totally off the grid. The closest they are to any type of civilization would be a one day or two day drive to Kabul. To get an idea of the distances, going from

Continued on page 4...

government watch

spam update

Putting the spam back into the can is proving to be about as easy as putting toothpaste back into the tube. At least, that's the consensus of most spam watchers. And a full year after taking effect, federal legislation deigned to curb spam doesn't seem to be helping much.

Popularly known as the **CAN-SPAM Act**, the Controlling the Assault of Non-Solicited Pornography and Marketing Act requires unsolicited commercial e-mail messages to be labeled (though not by a standard method) and to include opt-out instructions and the sender's physical address. It prohibits the use of deceptive subject lines and false headers in such messages. The FTC is authorized (but not required) to establish a "do-not-email" registry. State laws that require labels on unsolicited commercial e-mail or prohibit such messages entirely are pre-empted, although provisions merely addressing falsity and deception would remain in place.

Taking effect on January 1, 2004, the CAN-SPAM Act was introduced by

Senators Conrad R. Burns (R-MT) and Ron Wyden (D-OR) in April 2003, with minor changes from the previous year's version, S. 630 (2002). Two other bills (S. 1231 and S. 1293) were subsequently merged into it. The final version was approved by the Senate in November 2003 and by the House of Representatives in December 2003, and was signed into law by President Bush on December 16, 2003.

The federal legislation may have made the anti-spam fight more serious, but it doesn't seem to have reduced the amount of spam overall. One spam watchdog group reports that spam volumes increased by up to five percent during 2004.

Another firm estimates that spam grew from 67 to 77 percent of all e-mail last year. And Paul Hoffman, director of the Internet Mail Consortium, reflected the feelings of many anti-spam groups when he commented that "CAN-SPAM had done nothing, and the spam problem is much worse today than it was a year ago."

But the FTC insists that the goal of CAN-SPAM is not to cut down on spam,

but to give recipients a way out. Every commercial e-mail, according to CAN-SPAM, must contain an opt-out component.

Despite its apparent lack of muscle, the CAN-SPAM Act is giving e-mail providers the legal support they need to sue aggressive spammers. And suing they are. AOL, Microsoft, Earthlink, and Yahoo filed lawsuits in March and October of last year against the biggest offenders on their networks. The Federal Trade Commission has filed five suits under CAN-SPAM; Massachusetts and Washington have each filed a suit against spammers.

And there's more good news. AOL has declared 2004 a "banner year", reporting that spam coming into its network dropped from 2.1 billion messages in 2003 to 1.6 billion in 2004. One reason may be improved spam blocking.

But if the presence of junk mail in snail mail boxes is any indication, spam is probably here to stay. The easiest solution? Use the delete key.



IT challenges ...Continued from page 2

Kabul to one of the northern cities might be like going from Chicago to Green Bay, but without the superhighways we have in the U.S. You're going over dirt roads and through mountain passes. It's really out in the rough. So



information technology has been able to solve these major problems and has made doing this kind of work much more feasible.”

Security

In addition to communications, security is another important issue for SFL. Shelter workers, Rosenfield observed, are not in the safest parts of the world. Requests for and deployments of supplies and money, for example, need to be safe from interception. “You don't want warlords in Afghanistan to intercept a

transmission that someone is about to receive \$40K in cash.”

In addition to security of information, SFL needs to maintain strict security about the nationals who work with Shelter. While they make a point of never proselytizing, SFL is a Christian organization, so in Muslim countries, locals working in Shelter field offices could be in personal danger. “So we don't want to let out names of nationals, what they're doing, where they're working, because it puts them at extreme risk. They're probably at the most risk of anybody working for the organization,” Rosenfield added.

The solution, of course, is good encryption software. Fortunately, satellite communications allow encryption. But a big challenge for IT is maintaining up-to-date encryption software for critical information and teaching non-computer savvy folks how to use it.

Maintaining Hardware

Maintaining, transporting, and accounting for equipment located half-way around the world in remote and inhospitable conditions is also a challenge for Shelter. Some locations are harder

on equipment than others, noted Harry Van Burik, Communications Director for SFL. “High humidity in countries such as Sri Lanka, or a lot of dust, like in Afghanistan, can really affect the computers. In Sri Lanka, for example, where it is a tropical climate and high humidity – a very aggressive environment, so to speak – we bought two new computers and had big problems. Quickly they had to be sent out for maintenance. My experience personally is that laptops are more durable than desktop computers, perhaps because they are designed to travel,” Van Burik said.

Rosenfield noted that a normal laptop usually lasts in the field about two years, provided it's kept in a carrying case when not in use, and the PC card slots closed. It's interesting, Rosenfield noted, that the little pieces of plastic you insert into the PC card slot in a laptop are considered junk here in the U.S. But in the field, those little pieces of plastic can be the most valuable part of the computer. They are particularly valuable in Afghanistan, which is an extremely dusty place. “Everything that comes back from Afghanistan is full of something that's almost like ash. It's a fine ash that gets into

Continued on page 6...

company watch

10th anniversary

Time flies when you're having fun! ZyQuest celebrated its tenth anniversary in business this January.

Incorporated in January, 1995, under the name Applications Software Technologies, Inc., ZyQuest operated under the trade name AZTECH until the company reorganized under the name ZyQuest in December, 1999.

Throughout its ten years in business, ZyQuest has provided a broad range of IT services, including staff augmentation, project management and outsourcing, Internet solutions, software development, and technical education. While ZyQuest has focused on serving clients in the Green Bay-Fox Valley area, we also provide IT services to customers both nationally and globally.

ZyQuest remains committed to providing IT solutions to companies of every size, from local start-ups to multinational corporations. Our cutting-edge IT service has made us the preferred vendor for many of our clients.

Among ZyQuest's clients are American Express Property Casualty, American Medical Security, CellCom, Fujitsu, Georgia Pacific, GE Medical Systems, Humana, Kimberly-Clark, Krueger International (KI), Sak's, ShopKo Stores, US Mobile, Wisconsin Public Service (WPS), SC Johnson, M&I Bank, Schneider National, WS Packaging Group, Inc., Texaco/Shell, A.C. Nielsen, and Younkers.

ZyQuest's software products include ZyTax® in the fuel industry, Big Ticket and Price Management in retail, IMPACT in health information systems, and Proto-X, SCI-Lock, and Smart DTMF in engineering and product development. The development of ZyTax®, which facilitates fuel excise tax compliance, led to the birth of ZyQuest subsidiary, ZyTax, LLC, in 1999. That company was sold to the Texas-based company, FuelQuest, Inc., in 2001.

ZyQuest's consistent performance and growth led to national recognition by *Inc.* magazine, which

named ZyQuest as one of the 500 fastest growing companies in America for the year 2000.

Today, ZyQuest employs nearly 100 IT consultants and support workers.

About a third of those employees are expected to work out of ZyQuest's new office building, which is under construction in the Ashwaubenon Business Centre. The new building will house ZyQuest's corporate offices and the Development Center, ZyQuest's in-house software development facility.

We thank all of our clients for making our first ten years in business so successful and enjoyable. And we look forward to serving you in the decades to come.

For more information about ZyQuest, please visit our website: www.zyquest.com.



Al Zeise, founder and president of ZyQuest, Inc.

IT challenges ...Continued from page 4

“People become stakeholders in their own communities, which also creates more stable and secure societies.”

~~ Harry Van Burik

everything. So it is rough on equipment,” Rosenfield said.

Repairing malfunctioning equipment in the field can be extremely difficult. Fortunately, Shelter has been able to work with an IT organization based in Kabul and operating in Afghanistan and Pakistan. Having IT people available locally means Shelter doesn't have to send a tech person from the States to set up, configure, and trouble-shoot systems.

Most of the computers originate in the states. Transporting equipment has been facilitated by the shipping company DHL, which can send a medium-sized package for a cost that usually ranges from \$50 to \$300. When DHL shipping isn't available, Shelter workers traveling to field offices carry computer equipment in their luggage.

Software

In addition to maintaining and updating encryption software for security, IT work at Shelter, as in many companies, involves managing and upgrading software. Data about grants, donors, contracts, subcontracts, project timelines, resource management, schedules, accounting, and so forth, must all be managed through a variety of

software programs, such as QuickBooks, Microsoft Office, and desktop publishing. Much of that work has been done by Rosenfield, first as the IT manager for Shelter and now as a consultant to Shelter through ZyQuest. Along with testing, implementing, and teaching new software to Shelter office workers, Rosenfield also installs and updates anti-virus software to keep operations running smoothly.

Unique to SFL

While SFL faces many of the IT challenges encountered by for-profit businesses, Shelter has the unique distinction of operating with a mission that sometimes requires the organization to do things a little differently. For example, because Shelter is committed to making people self-sufficient, the organization works with locals whenever possible. One of the end-products of that commitment is a school in northern Afghanistan with a computer lab to train girls in basic computer use.

SFL believes that providing houses does more than give people a place to live. Harry Van Burik explained, “We did a program in Northern Afghanistan where we built 5000 houses in 2002, in four months' time. We

did a survey to see how people there were using their houses. We saw that more than 50 percent of people who just moved into their new houses used their houses not just to live in, but for a home-based enterprise. So houses are important for economic activity. So by providing people with houses, we provide not only a safe shelter, but we help people become more economically independent. These people also help build their own houses and become owners, with all the positive things that entails. Most people take better care of their own houses. People become stakeholders in their own communities, which also creates more stable and secure societies. We are building a better and safer world. These people become much less receptive to messages from groups like the Taliban.”

With an outcome like that in sight, ZyQuest is honored to do its part by keeping Shelter's IT operation running smoothly. For more information about Shelter for Life, including information about how you can become involved in their new home sponsorship program, we invite you to visit their website at www.shelter.org.

industry watch

technology in review

Most technophiles have their favorite list of trends for 2004 and predictions for 2005. Here are just a few of ours.

Looking back at 2004:

1. The year of the iPod. Apple's little portable music player became the hot Christmas gift for 2004. In October, the company reported that more than 2 million of the sleek, colorful little iPods had been shipped to stores.

2. VoIP starts to catch on. Companies such as Vonage look to revolutionize communications with telephone services over the Internet.

3. Oracle swallows up PeopleSoft. Who's next?

4. Bloggers come into their own. Internet junkies are probably largely responsible for discrediting Dan Rather and making Howard Dean's name a replacement for the old term, "going postal".

5. CAN-SPAM goes into effect. But how effective is it?

6. The Internet war. Television brought us the

Viet Nam war, but the Internet makes the Iraq war and global terrorism even more immediate and disturbing.

7. Mozilla's Firefox takes on IE. Tech reviewers are raving about the newest web browser to challenge Microsoft's supremacy. More than 10 million free copies have been downloaded since its introduction.

8. E-voting. Despite the doomsayers, e-voting seems to have been successful so far, with none of the anticipated fraud marring the results.

9. Security, security, security. With threats from viruses like MyDoom, email scams, identity theft, and phishing, the computer security business was bigger than ever.

Looking ahead to 2005:

1. How about an iPhone to go with your iPod? The Mac faithful will flock to buy what would undoubtedly be the prettiest phone on the block.

2. DVRs will become home entertainment necessities. We'll see them built into satellite

equipment and cable services. Will TV commercials go the way of the dinosaur?

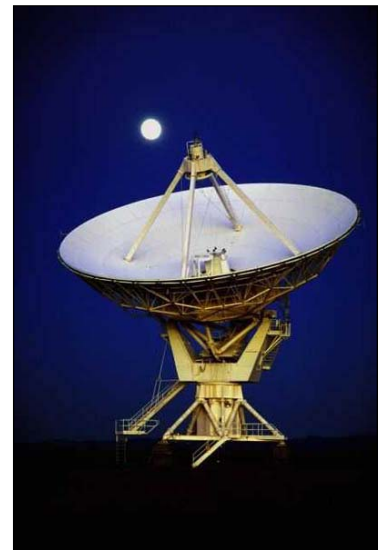
3. Everyone's going wireless. More businesses and individuals cut the cord as they take their tech toys and tools with them.

4. Nanotech makes inroads against OPEC? Nanotechnology could help make hydrogen fuel cells a coming contender in the war for the world's energy dollars.

5. A better Internet. Work will proceed apace on a new, improved, and not so crowded Internet 2.

6. Like the poor, spam will be with us always, and probably in ever larger amounts, despite federal legislation to control it. How the U.S. handles spam will not endear us to the European techno community.

7. And the big will get bigger. After PeopleSoft, who will Oracle go after next? Its appetite, like that of Microsoft, may not be easily satisfied.



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Staff Augmentation and
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Project Management and
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Internet Solutions

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To learn more about how ZyQuest can provide cutting-edge technology for your business, call us at
1-800-992-0533. Or visit our website at www.zyquest.com