The Mouth of The Kenai

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Plugged In: Doing business virtually a goal in the clouds

By Joseph Kashi, for the Redoubt Reporter

Germany's biennial Photokina trade show is under way and announcements for new photo equipment are coming fast and furious. Some are unexpected and seriously cool.

Most of this equipment won't be on the "virtual" Internet shelves until mid-October, though, and prices won't stabilize until after Christmas. So, we'll take a break from digital photography for another week while the dust settles and it's possible to gain some perspective.

In the meantime, let's look at setting up a "virtual" office. This could be a law practice, a consulting or engineering business, or a tourist lodging or guided fishing business that appeals to a national clientele.

Let's start with a basic question: What is a virtual office or business? The definition's been changing almost as quickly as the technology. Nearly everyone now works "virtually" to some extent, even if only responding to business e-mails or sending PDF files and digital photographs to someone out of state. Most people think of a virtual business as one that has no fixed office, that's oriented toward one-time business, and that rarely, if ever, involves direct client contact. That's not the norm, although that may be changing.

Most businesses, even those that work primarily through electronic contacts, still include a significant degree of personal interaction, preferably retaining customers and clients of long standing. Although most professional services and businesses in a small-city environment like the central Kenai Peninsula are still traditionally organized, that may be changing — thanks, in part, to current economic stresses and society's evolving acceptance of electronic relationships that have been with us since long-distance telephony and then faxing became widespread.

Almost every business now routinely uses technology, especially fast, long-distance communications, to deliver its services faster and more efficiently. I consider this to be a mixed blessing. Greater efficiency benefits everyone, but failing to gain firsthand, up-close knowledge has its own risks.

Much depends upon the nature of your business. A family physician needs to prod and probe you and take your vital signs. A civil engineer needs to be familiar with a building site. As a trial lawyer, I find that there's no substitute for direct personal contact with clients and the deeper knowledge that comes from visiting the scene of an auto collision or a construction problem.

Technology produces its greatest benefits when we "re-engineer" what we do and how we do it, taking advantage of a new technology's unique capabilities and efficiencies while retaining the best practices from our more traditional way of doing business or professional practice.

Engineers and architects became far more efficient when CADD (computer-assisted design and drafting) programs replaced hand drawing on Mylar. Real estate offices cast a wider net when MLS listings are posted online. Radiologists can review an MRI file from the other side of the continent just as easily as if they were viewing films on the spot. Construction superintendents can carry a project's current plans and specifications on a USB jump drive.

Business, done virtually

So, how can your business go "virtual?" I believe that it would:

- Use Internet-based "cloud" computing technology and modern communications to allow everyone to work together efficiently, regardless of their physical location;
- have a stable core group;
- have established collaborative relationships with others who possess expertise that is occasionally needed;
- expand and reduce personnel as needed;
- often, but not always, operate from remote locations; and
- be reasonably "paperless," sharing centrally located electronic documents and files.

Frankly, there is nothing new, or even very frightening, about operating virtually. We already operate virtually when we use our telephones, faxes, e-mails and Blackberries, or even the U.S. mail to deal with far-away businesses and people. Perhaps, though, we haven't given a lot of thought to restructuring what we do and how we do it in order to take full advantage of modern technology.

Over the past several years, efficient long-distance collaboration among businesses and customers who may never physically meet has dramatically increased as high-bandwidth Internet technologies finally made the process fast, easy and efficient. If you really need to work with the other person face to face, free video-conferencing from a provider such as Skype works surprisingly well. Using a cheap webcam and Skype real-time video broadcast over a regular DSL Internet connection, I've been able to conduct computer camps for students at a Rotary-sponsored school in Thailand from my Alaska office. Until I turned the webcam toward an outside window in late winter, these Thai students had never seen snow.

Cloud computing

With the broad use of imaged documents stored somewhere in the Internet "cloud," and web-based application programs, it's entirely feasible and inexpensive for a traditional business office to go "virtual" and cast off the bounds of working only from a fixed physical location. The Internet "cloud" refers to data that's stored throughout the Internet but accessible through a single-access website.

More than anything, virtual business is driven by cloud computing, storing and sharing documents throughout the world through high-bandwidth Internet connections. If you've ever used Gmail from Google to store and share documents, photos or videos, then you've used cloud computing. Where your files are physically stored among Google's hundreds of thousands of computers is known only to Google. All that you know is that you can access your documents through a Google website. Google's "cloud" usually provides every user with about seven or so gigabytes of free document storage. If you want more, then you'll be assessed a fee. Other vendors, such as Amazon and Microsoft, also provide fee-based cloud data storage. Cloud computing has some real advantages:

- Data is always accessible from any high-bandwidth Internet connection worldwide. That makes virtual collaboration nearly as easy as working with the person down the hall.
- Because collaboration is done online in a multiuser mode, online documents are up to date.
- Cloud computing vendors, such as Google, often provide useful, free application programs that work well enough with cloud-based documents. For example, the free Google Docs application suite includes word processing, spreadsheets, photo processing and calendaring. Open Office is surprisingly effective with web-based documents, and the many photo-sharing websites, such as Flickr, usually include useful, if basic, photo programs.
- Web-based programs usually use standard, nonproprietary file formats, allowing you to download your documents and use your regular software for heavy-duty processing.
- Experienced cloud computing vendors such Google, Adobe and Amazon usually have adequate security and data protection measures, allowing you to concentrate on running a business, rather than acting as your own tech support person.

Choose your vendor carefully

Of course, there are some very real problems with cloud computing.

Unless the vendor is financially stable and has a good track record, there's a very real chance that a company selling cloud-computing services may unexpectedly shut the doors, putting your data into limbo, at best. This just happened with tax software vendor Intuit, and that's unacceptable for any business.

Moving a few hundred gigabytes of data to another cloud vendor would be complex and leave you susceptible to data loss. In addition to Google, Adobe and Amazon also provide stable, fee-based cloud computer services for businesses.

Investigate experienced cloud computing vendors that focus on working with your type of business.

Reliable backup is another potential source of trouble. If you have a large amount of data stored in the Internet cloud, then backing up that data yourself will be difficult and tedious, if not impossible, as a practical matter. At that point, you're at the mercy of the cloud vendor. Once again, be choosy.

Bandwidth limitations will determine how effectively you'll be able to collaborate online when using very large documents, such as databases or imaging files.

Cloud-based document imaging programs are rudimentary, at best, lacking the depth of features and sophistication of programs such as Adobe Acrobat Professional. You'll still need some strong, office-based programs, like Adobe.

Even though cloud storage vendors probably have better digital security than most of us, there will always be a legitimate concern about the possibility that confidential data might be compromised.

The database programs and document management systems offered by most general-purpose cloud computing vendors may be weak compared to office-based systems. Evaluate all options in depth and then choose carefully. Your business's survival may depend on your decision.

Best approach

So, what's the best approach to cloud computing until the time when these problems are resolved? Here are some short-term solutions:

- Maintain your primary records and documents locally on a network directly owned, controlled and constantly backed up by your business.
- Use the cloud solely for the storage of active documents that must be regularly accessed and shared by remote users.
- Regularly back up all cloud-based data by downloading it to your own local area network, and be sure that you have the most recent version stored locally.
- Avoid posting very large documents containing hundreds of megabytes.
- Use nonproprietary data file formats within your own office and for web-based documents. Doing so reduces compatibility problems when you have many users and positions you to avoid data compatibility problems in the future. Avoid online databases that don't provide a clear and easy migration path to other programs or vendors.

Local attorney Joe Kashi received his bachelor's and master's degrees from MIT and his law degree from Georgetown University. He has published many articles about computer technology, law practice and digital photography in national media since 1990. Many of his technology and photography articles can be accessed through his website, http://www.kashilaw.com.