Lake County Contractors Association

Professional Practice Report

July, 2000

e-Commerce - The Dark Side

Bill Zeigler - Zeigler Associates, Ltd

Like it or not, connectivity is here until further notice - bringing so many wonderful developments and new ways to do things, accomplish your work, get the job done, new things you can do. But like so many revolutions, there is a price. Suppose for a moment that e-Commerce access were to terminate our job - we will take the argument for a moment that instituting its use and capabilities is a bad idea and focus on why. We will focus on the problems of increased access and its use to accomplish tasks.

Software/Hardware Investment

The payments begin immediately just getting and staying in the game. Compared to typewriters and telephones, more complex tools and additional layers of technology are required to support connectivity effort such as multimedia system capabilities, modems and higher connection speeds [tried getting DSL lately?], newer versions of operating systems and browsers. These tools come with their own initial cost and subsequent maintenance. In complex enough environments, even a new staff position [or perhaps an entire department] is required to keep up with the changes and normal problems. Software publishers have taken on an annual 'upgrade' timetable to increase their revenue stream - which is paid for by you the user. And many readers can attest that upgrading need not be a smooth process.

Once you select hardware, you fight 'obsolescence', growing inadequacy as software advances, component failures and incompatibilities across system manufacturers or even models within the same manufacturer. Anyone who has replaced a hard drive raise your hand - is it an autosensing CMOS, do you need an install diskette and which one, is the drive jumpered right, do you have a dual IDE cable, is the spin speed compatible with your system speed, what will happen to your drive letter assignments for all other drives and previously installed software. Once all those questions are answered satisfactorily, you still have to prepare and format the drive - then you can start using the space. Then we could talk about replacement sound systems, CPUs, CDROM drives, RAM chips [types, banks, quantity, motherboard settings and capacities], network cards, modems.

Learning Curve

Much is spent to make browsing and the supporting software as easy to use as possible. But the fact remains a higher level of technical experience and prowess is demanded of the user then the typewriter days. Most Help Wanted ads today include 'Word and Excel a must'. Once the systems are acquired, installed and operational, support includes configuration changes, usability questions, crash recovery. Somehow, the way a program installed in the field works differently or encounters errors that it didn't in the development environment. Even today, the writer has to teach users how to add or download email attachment files. Often the 'line users' are or become the expert and need the most help. Enter again the support staff or third party, all at a cost. You can arrange outside classes [tuition, pressure to pay for employees' time investment, take home materials expenses]. While all this is being worked thru, connectivity waits or is used at a lesser pace and effectiveness until the 'plumbing' is resolved.

Security

Now here's good news - you're connected! Oops - now you can get a virus or hacked. This threat is getting increased attention lately. Like tornadoes, in days long past many users wanted to get a virus just to see one. Now, enough of them have hit [Michelangelo, Melissa, Lovebug], that desire is long gone. So you engage the usual defenses - virus protection software, firewalls, disk and file handling procedures [Los Alamos] - to the extent that all that effort and expense to properly configure and tune your system discussed so far is, in a few words, gets all screwed up. Virus protection software intercepts disk reads and writes, monitors memory and CPU function, watches incoming email - all these operations drag down the system and usually create errors and crashes eventually. But of course so do viruses, even worse. Firewalls are an attempt to prevent unauthorized outside access to in-house systems and their storage. Their design interferes with accessing some websites, particularly the secure pages that require two way communication with your system.

In addition to attack from the outside, security for an implemented system also calls for protection from unauthorized internal access, your own users who have a distinct advantage over the outsider in the Philippines - their proximity and internal knowledge. Ever forgotten a password? Resolvable but inconvenient. Ever lost a diskette [or a file on the server] with hours, days or weeks of work on it? Not very efficient.

A company specializing in building website or internal network security commonly performs a demonstration as part of a sales call. Within several minutes, they show that they can get into the prospects system, collect all passwords and gain full access to all internal data. They have yet to fail.

So the tool to accomplish good brings with it the capability of others to do bad, proven from past experience to be a capability that has fervently been used. Usually, these security inconveniences can be reduced to 'inconvenient but operable'.

Productivity

Once all the aforementioned problems are ironed out, you're home free, yes? Not necessarily. As staff gets online and starts navigating the expanse of Webspace, productivity completing previous assignments is impacted. They need time to develop the information base of useful tools out there to do the work. System use is not always directed toward company goals [personal email, games, entertainment sites]. Add any effort to monitor and modify such unintended behavior to the cost of operating the system.

Even effort devoted solely to company goals is challenged by learning how to use this tool efficiently for desired results. Searching the web and 'hot sites' [in the opinion of the whatever author] is the topic of many articles, classes, books and software programs put out by people who are also trying to make a living. With a relatively successful program of developing your company's set of useful links and web sources, you end up with another body of information worth protecting that at this point represents a significant investment of time, money, blood and perhaps tears.

Legal Considerations

And speaking of email, another development has come to the fore. The Spring 2000 issue of the Wisconsin AGC's *Constructor Magazine* includes an article in the Labor Law section, "Employee Abuse of Company Communication Systems" written by Doug White of Melli, Walker, Pease and Ruhly [p. 28]. In addition to productivity concerns, we see a potential liability upon the company as they deal with these productivity issues. The company may monitor email - doing so improperly or without a clear policy can bring liability, privacy abuse and morale issues. Email can provide a sense of anonymity which might foster 'informality, off the cuff remarks, and the transmission of remarks that should never have been sent', adding to harassment or libel concerns. Many remember Oliver North and recently the current administration dealing with electronic evidence - quite common these days is to include a demand for electronic information [memos, emails, files] in Discovery proceedings. Even the NLRB has begun looking at company policy relating to these communication tools and their use in union related discussion leading to a potential NLRB complaint.

The recommended approach to these issues is a properly designed policy that foremost advises employees of the boundaries and intended company activities and guidelines in the use of email and internet access, stated policy prohibiting harassment, directive to report violations, etc. In a union environment, this policy may require bargaining. Bet you didn't know that implementing web access might require union consultation and/or legal counsel.

Stability

So everything thus far described is under control and you've finally developed a system of e-Commerce access and procedure to obtain certain goods and services as well as perform a set of your company operation responsibilities. You've thrown away some reference and catalog materials, terminated some paper based publication subscriptions, perhaps even set up your own business' web site for offerings, timecard and customer quote submissions, etc.

Then for some hopefully short period of time, your Internet provider has an optic cable cut in South Florida by an unknown construction contractor [actually happened to the writer] and you lose your Internet connection. With the explosion of Internet businesses and connection providers comes an inevitable 'shakeout' which we are seeing at the moment [Amazon.com and Peapod.com projected cash crunch]. Suppose your website server [or your own internal one] goes down, or one of the providers you rely on goes offline and you can't access a critical product or service and you scramble for the phone number. Compared to the days when we walked everywhere we went, what's it like by comparison today when your car goes down and you can't get to work, the grocery store, the doctor or any other place of business, service or utility - or your power goes out…

So if you're really on top of things and Scout-prepared, you develop a- whole 'nother layer of contingency, backup and redundancy that makes your system and access even cheaper, easier and faster to use, right? Or like many, maybe not and you pay the consequences that way.

Human Element

So now you've survived all the hurdles - the investment, configuration, hiring and training, security breach protection installation, personnel productivity procedure challenges, legal problems and risks, the outside systems are running [for the moment] and online. You are doing business [again] on a predictable pattern and developed a bit of history and routine. Then you may discover you become part of a recent statistic now being charted by the providers. In an incredible twist of irony after all you've gone thru surviving everything so far, more users are discovering they need or want a human follow-up or interaction to process web business. Questions on an order or product not adequately handled by the site or buried too many levels deep when it can be answered in a few seconds with the right person on the other end [if there aren't too many menu choices to navigate]. The human brain compares quite favorably to the function of many artificial pieces of equipment.

Summary

All this is not to say that connectivity and e-Commerce will be a failure. Solutions to these problems and challenges improve continuously. The current user needs to allow for some burden with current implementations. Perhaps more a credit to e-Commerce benefits, the load of these challenges is no match to the benefits which currently power it's continued massive march and development explosion. So we see for the moment at least that connectivity's service continues to improve while the problems with getting connected diminish or get handled more effectively. You can do the math as you plot the trend forward from today's point of hot Internet business opportunities and offerings.