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Top Ten Trends Impacting Bank Technology for 2007

Get ready for an innovation explosion in 2007. All the pieces are falling into place for what promises to be a banner year for technology installations that help innovative banks leverage new technologies to better serve customers, increase employee productivity and enhance profitability.

To get your strategic plan in order and to prepare for this new wave of technology, we offer ten predictions:

Prediction #1 – The Web Evolves Into the Platform for Business

This long anticipated "webolution" will become quite evident as 2007 will be the year the Web becomes host to a variety of applications and services. Thanks to ubiquitous Internet connectivity, wireless, and affordable bandwidth, the average user will not be able to distinguish which applications are in-house and which are Web-based.

Just as the PC of 1985 was a far cry from the PC of 1995, the Web of 2007 will be robust and ready for business. Call it Web 2.0 or 3.0, but whatever you call it there is no doubt the Web will impact your business in 2007 more than it has the previous 10 years.

Further leveraging the Web to reach the "MySpace, YouTube, Google, Starbucks, iPod, Tivo, Satellite Radio" generation, banks will discover "Vodcasting," or video podcasting, as a way to advertise and educate. A new generation is getting their information condensed and on-demand. Vodcasting will be another method to reach this market, "connecting" not just advertising. Banking vodcasts will range from primers on Internet banking to snippets on personal finance, all designed to inform, entertain and sell. Internally, banks will embrace vodcasts to educate employees on new laws, regulations and related policies and procedures.

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Prediction #2 – Technology spending increases, just in nontraditional ways

Tech spending in 2007 will increase about seven percent with the financial services industry continuing to be the biggest spender among industry sectors. However, the spending priorities will be different. Less will be spent on hardware thanks to the advent of virtualization and Web-based, on-demand applications. Expect increased spending in services, especially those related to security and infrastructure improvements. Software as a Service (SaaS) will contribute to the increase in spending.

Hardware will be further commoditized. Bankers should pay close attention to those selling "creative" hardware purchasing plans. In other words, beware the naked man who offers to buy your shirt…then lease it back to you. Unless there are compelling reasons to the contrary, leasing hardware rarely makes financial sense for banks.

Is your bank an innovator or a complier? In other words, is your bank innovating and competing or just complying and operating? Competitively speaking, innovators will stomp compliers in 2007.

Does your bank celebrate cost containment or revenue generation? Does your bank reward the person who saved money by buying the cheap axe, or does your bank reward the person who made the wiser purchase of the chainsaw, and will clearly be more productive in the woods? Many banks apply the former strategy, cutting costs at the expense of innovation. This is especially true in tech spending as bankers who fail to grasp new technologies will be left behind to scrape the bottom as low-cost, low quality providers of financial services.

Current IT budgets may not reflect many of the technologies needed to compete in 2007. Strategic technology planning will be required to upgrade bankers' visions and budgets for this new age of technology.

Writing on "risk versus reward in the long run" in their "Letter from the Founders: An 'Owner's Manual' for Google's Shareholders," Larry Page and Sergey Brin note that "Our business environment changes rapidly and needs long term investment. We will not hesitate to place major bets on promising new opportunities."

Successful bankers will adopt a similar long-term view.

Prediction #3 – Virtualization Changes the Networking Paradigm

To say virtualization is hot would be an understatement. Banks are enjoying the benefits of virtualization resulting in 40-75 percent one-time savings and up to 50 percent in

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ongoing savings. One example was an organization that consolidated 1,000 physical servers into 50. Such a 20:1 ratio may not betypical, but 10-15:1 ratios are typical for production servers with 15-20:1 in development and testing. In the majority of installations the bank also improves business continuity efforts through server redundancy in the virtual environment.

VMware is the market leader, but others, most notably IBM and Microsoft are jumping into the virtualization market in a big way. Even the open source community is playing with XenSource claiming it can generate both Windows 2003 and Linux virtual machines with plans for Windows Longhorn in 2008.

The ability to test new applications and new releases on virtual machines before putting them into production is a significant advantage. Most banks will have virtualization in their 2007 plans.

Prediction #4 – Talented People Excel in the New World of Technology

As technology becomes more sophisticated and complex, the demand for a smart, motivated workforce will be strong. Those who update their skills will prosper. Those stuck with 80's and 90's skill sets, and who lack the motivation to learn, will suffer greatly.

Published in June 2006, *The Cambridge Handbook of Expertise and Expert Performance* challenges us to rethink talent as simply being gifted. On the contrary, from chess to ballet to surgery, expert performers tend to be "made" not "born." Not to say everyone has equal potential (with my vertical leap, I'm not likely to become the next slam dunk champion no matter now much I practice), but the evidence is clear that exceptional performance is typically the result of years of hard work and dedication. Furthermore, most take 10 years on average to achieve excellence in their fields. Overnight sensations are nothing of the sort. They are most likely focused individuals who spent at least 10 years honing their talents and skills.

As baby boomers retire, employers will have a hard time finding qualified employees to fill the experience gap and will turn to professional services firms to fill the gaps and provide necessary expertise. Expect partnerships such as this to grow as outside consultants complement, instead of replace, in-house expertise. Bankers will come to the realization that people don't have to work *for* the bank to work *with* the bank. Trusted providers will help banks achieve high performance through collaboration and innovation. Such co-sourcing will be a winning strategy as bankers retain loyal employees while remaining open to outside consultation and strategic alliances.

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Prediction #5 – Vista Will Be the Greatest Catalyst to the PC Industry Since Windows 95

For the past 10 years, the PC industry has suffered and users have benefited from processing power that exceeds the requirements of the operating system. Expect a reversal of fortune in 2007 as Vista emerges requiring significant hardware upgrades and planning.

There's a lot to like about Vista. Better security, a slicker interface, faster search and a 3D environment are a few key features. Vista and Office 2007 will represent learning curves not seen in recent releases. In particular, Office 2007 will require significant training. Past releases have been ho-hum events. This one is not.

Bankers should begin planning now by developing detailed software training and migration plans but wait until at least the third quarter of 2007 to deploy. This will allow banks to test application compatibility and hold out for Service Pack 1, expected in third quarter 2007.

Planning to deploy Vista on current PCs will be unwise in most cases. About half of PCs in use now will run Vista but almost all will not run Vista Premium with its heftier hardware requirements.

Regardless of Vista deployment plans, one will want to ensure 2007 PC purchases are "Vista-capable" even though one might want to run XP in the interim to ensure application compatibility. Bankers will also re-visit thin-client designs in light of Vista's requirements.

While PC lifespans have increased recently from three years to four years or more in some cases, it makes good business sense to replace PCs every three years. After three years a PC requires more technical support and experiences degraded performance. The PC may be off the books, but the total cost of ownership begins to increase dramatically and outweigh any perceived savings. Vista will drive organizations back to a three-year replacement cycle.

Looking ahead, Windows Server "Longhorn," the codename for Microsoft's next server operating system, will support 32-bit and 64-bit processing while incorporating many of the improvements associated with Vista.

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Expect Vista to be adopted faster than any previous Windows operating system with 2008 seeing the most activity.

Prediction #6 – The Death of Benchmarking as We've Known It

Building IT budgets around single benchmarks simply does not work. External peer benchmarks can be meaningless when used to drive internal priorities and targets. Especially in banking, where cost accounting standards are lacking, there is no single magic benchmark that, if achieved, will bring high performance.

Aberdeen Group research found that 65 percent of poor performers leveraged a single benchmark, compared to only 5 percent of top performers who did.

Bankers will spend less time worrying about what others are doing and will spend more time investing in IT services that have the greatest business impact. Benchmarks, when used, will be viewed in multiples and in the context of relative averages not absolutes.

Prediction #7 – Bankers Remain Cautious But Confident Regarding Threats

Bankers will grow tired of unsubstantiated hysteria like the recent U.S. government warning that al-Qaida would launch a cyber-attack against online stock trading and banking Web sites. Socially awkward young men living in their mother's basement will continue to outpace al-Qaida as the real cyber terrorists. Using botnets from hijacked PCs they have infected with worms and Trojan horses, these spammers and phishers will continue to wreak havoc. More than 80 percent of spam is sent via a botnet, according to IronPort Systems. Expect more of this activity in 2007 along with more image-based spam, which now makes up more than one-third of all spam, according to Tumbleweed.

Because the greatest threats will most likely originate inside your bank, criminal background checks remain an effective tool in fighting threats to your infrastructure. Annual IT audits and network vulnerability assessments will provide independent reviews of such controls. Security solutions such as Intrusion Prevention Systems (IPS) will improve banks' security posture.

Pandemic planning will simply reinforce current business continuity plans by calling attention to any disaster that reduces workforce. Smart planning, not panic, will suffice. Preparing one's family plan will continue to be the most important issue.

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Prediction #8 – Smartphones Continue to Sell But Disappoint

Poor battery life, small screens, inadequate memory, inferior as phones, slow wireless connections, difficult to secure, bulky and unstable. Other than these shortcomings, smartphones are great. These devices are the bling of the business world. They are sexy, cool and ooze gadget-envy.

Somewhere out there, in development, is the solution that will be in between a tablet PC and a smartphone. We are currently experiencing the "Apple Newton" and "Sharp Wizard" phase of the smartphone evolution. A better solution will come.

In the meantime, IT shops will have to learn to secure and support these devices as more users demand this type of communication technology. True power users will buy BlackBerrys and may also buy a "real phone" such as a Razr for its voice quality, battery life, design, reliability and simple operation.

Unlike notebook PCs, smartphones tend to get more personal use making these devices an IT compliance officer's nightmare.

RIM's Blackberry continues to be the Gold Standard supplying 53 percent of the 5.2 million smartphones purchased in 2005, according to IDC.

Prediction #9 – Software as a Service (SaaS) Hits the Mainstream

Affordable bandwidth, stronger encryption and better support will make on-demand applications more popular. Salesforce.com has been the best example of SaaS but expect the model to attract bankers intent on improving their technology while reducing capital expenditures.

A small bank that might not stomach the capital outlay to implement a complete Outlook/Exchange environment, will pay-as-they-go and sign up for a per user subscription which would be easier on the budget and would further level the playing field against its larger competitors.

In the past, bankers worried about losing control of their data if it wasn't in-house. The debut of Microsoft Office Live service for small businesses may be the tipping point that makes software as a service accepted by the masses.

IDC predicts that worldwide software service spending will grow from the current $6.8 billion market to a $10.7 billion by 2009.

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The mobile workforce will require 24/7 tech support. If the CEO's BlackBerry has problems at midnight, he or she needs help then, not eight hours later when the helpdesk opens for business. This will drive many organizations to hosted environments where such around-the-clock support can be outsourced more cost effectively.

As the advent of the PC and the network led to more auditing, albeit in a more decentralized manner, SaaS will do the same. Oversight of third party providers will still be required and audits will expand in scope to cover all the bases.

Prediction #10 – Security Breaches Continue While Security Awareness and Security Solutions Improve

From the CardSystems breach in 2005 to the U.S. Department of Veteran's Affairs in 2006, it appears 2007 will continue the trend of spectacular security breaches. Most will continue to be from lost laptops, some involving third parties entrusted with confidential customer or employee information. Most reported security breaches will continue to occur at colleges and universities, not financial institutions.

Phishing and pharming incidents have scared some bankers into submission as they scrap mass email communications with customers. This is akin to jerking the phone out of the wall because of a prank call. Cooler heads will prevail and email marketing will be recognized as an effective tool.

Clearly security awareness hasn't received the attention it deserves. Most continue to look for a panacea, but one doesn't exist. Education and awareness will continue to be key factors in mitigating security risks.

SQL and XML injections will be a growing threat as attackers breach systems using cloaked commands to read and write data from databases and other systems.

Bankers will grow weary of the seemingly endless increasing number of risk assessments required by the regulators, but over time these risk assessments will become effective tools for identifying, measuring, and mitigating risk.

IT Audits and Network Vulnerability Assessments continue to evolve in scope and increase in importance as bankers view information security as a business issue first and a compliance issue second.

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Summary

2007 will be an exciting time for those involved in banking technology. From remote backup, minimalist Web sites, virtualization and Vista, to SaaS, distributed item capture, Wikis and wireless, new technology projects will shape your bank for the future.

Trusted providers will prosper. Talented, experienced people will be recognized and rewarded. Bankers embracing technology with a long term view and a sound strategic plan will enjoy sustained profitability and a competitive edge over their less entrepreneurial competitors.

To quote an Irish blessing, "May you have the hindsight to know where you've been, the foresight to know where you are going, and the insight to know when you have gone too far."

Best wishes for an eventful, yet smooth and prosperous 2007.

Sawyers & Jacobs LLC helps banks in four major areas: Technology Planning, Risk Management, Network Solutions, and Business Continuity. Our mission is *to help our clients use technology securely, effectively, and profitably to better serve their customers, comply with laws and regulations, contain costs, and compete.* To learn more, visit www.sawyersjacobs.com , call 901.487.2575, or email jsawyers@sawyersjacobs.com .

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