

# Financial Technology Monitor

October 2003

## Legislative Change + Electronic Efficiency = OPPORTUNITY

"If we wish to foster financial innovation, we must first be careful not to impose rules that inhibit it, and we must be especially watchful that we do not unduly impede our increasingly broad electronic payments system."

-Alan Greenspan, 2000

With existing law, check truncation can only occur if the banks involved have a prior agreement. In the absence of an agreement, the original paper checks must be presented or returned. While this law was not intended to "impede" progress when it was passed decades ago, its mere existence today does just that. It is evident that the check system's legal framework has not kept up with technological advances and surely "inhibits" financial innovation.

When Greenspan gave his speech in 2000, he not only addressed the government's responsibility in fostering banking efficiency, but advised against the private sector relying on the government to determine the direction of payment services, instead he said "in the case of electronic payment innovations, only consumers and merchants will ultimately determine what new products are successful in the marketplace. Government action can retard progress, but almost certainly cannot ensure it".

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## Financial Technology Industry News Briefs

- **Outsourcing Tidbit:**  
Deloitte Research's survey of 100 of the globe's largest financial services companies found they expected to shift \$356 billion worth of operations and about 2 million jobs to developing countries by 2008. A.T. Kearney estimates that North American brokerage firms spent \$417 million on offshore contracts in 2002 and will spend \$1.31 billion annually by 2005. The firm also predicts that 8% of all jobs in banking, brokerage and insurance will be gone by 2008.
- **Operation Cornerstone:**  
The Bush Administration has created a task force within the Department of Homeland Security to address vulnerabilities in financial systems through which criminal activity is able to occur. The initiative provides for quarterly meetings with financial executives to gather new information and subsequently produce a quarterly bulletin of problems and solutions. The goal is to investigate and prosecute organizations involved in money laundering, e-commerce fraud and identity theft.
- **Managing E-Communications**  
Gartner predicts an increasing use of Instant Messaging among Financial Institutions. With IM, customers would be able to converse with an FSP agent real-time and receive personalized, immediate attention. With increasing IM use, banks will begin focusing on managing this now informal method of communication. In June, 2003, the NASD issued a notice to members that IM messages could be considered as records under NASD and SEC regulations. Although this does not apply directly to banks, they should follow suit. Increased awareness for a centralized repository for all types of digital documents, along with increased management specificity, will lead to technical partnerships between document and record management vendors through year-end 2004. In theory, the record retention, categorization and search rules that an enterprise applies to its paper documents also apply to e-mail messages and, increasingly IM.
- **Open Solutions Re-files for an IPO**  
On August 28, 2003, Open Solutions, a data processing and information management software company for financial institutions, re-filed with the SEC for an initial public offering of up to \$75 million. In a separate filing that day, OSI pulled its original March 20, 2000, IPO filing of up to \$60 million.

**Legislative Change + Electronic Efficiency = OPPORTUNITY (Cont'd.)** →

In 1999, the Federal Reserve established the Payments System Development Committee to work with the private sector in identifying impediments to the retail payments system. By the start of 2002, both the House and Senate had received copies of the Check Truncation Act. Subsequently, each house developed its own version of the legislation, which received widespread support. By the end of June 2003, the House of Representatives had unanimously passed the Check Clearing for the 21<sup>st</sup> Century Act while the Senate had unanimously passed the Check Truncation Act. While both houses have yet to meet to draft the compromise bill, it is expected that Check 21 will be passed into law by spring 2004.

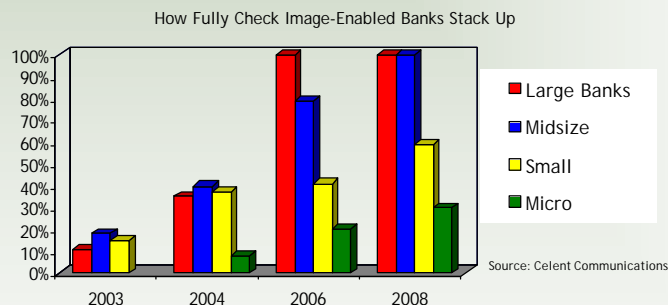
Check 21, as it is commonly referred to, enables (but does not require) banks to create substitute checks that are the legal equivalents of the original paper check. Where banks originally had to present the actual original paper check to the paying bank, it is now able to present an image of the check for payment. Once the information is captured from the paper check, the original is no longer needed in the clearing process.

In 2002, the Federal Reserve estimated that over 40 billion checks were written in the United States. All but 1/3<sup>rd</sup> of those checks had to physically be moved between institutions for payment. While this number may seem high given the new payment options available to consumers and businesses alike, it is unlikely that the paper check will ever become obsolete. People value them too much. Greenspan noted that "the average consumer is exceptionally conservative and traditional when it comes to money. To the vast majority of people, it represents the stored value of one's previous efforts. Our history vividly affirms that the average person is far more sensitive to what form our money takes than we payments system specialists have readily understood." With that said, paper checks, regardless of its inefficiency, are here to stay.

Check processing is the second most expensive retail banking operation after running a branch network. Banks spend between \$6-\$8 billion annually on processing, operate more than 300 check-clearing centers and employ more than 50,000 people to process checks, which on average change hands over a dozen times. And this does not even include the costs associated with courier services, ground and air transportation which can cost a bank around \$25 million annually. Check 21 enables increased efficiencies and significant cost savings.

Overall savings are estimated to be between \$1 - \$6 billion, depending on factors, such as bank size, number of branches, current electronic processing system in place, number of courier runs per branch, etcetera. Cost savings are not the only benefit to check imaging, with real-time capabilities, banks can assess associated risks faster. This should lead to quicker prevention of additional fraud, identification of insufficient funds/ overdraft accounts and will enable the collections process to begin sooner. Plus, since checks will clear quicker, funds will be available to banks sooner.

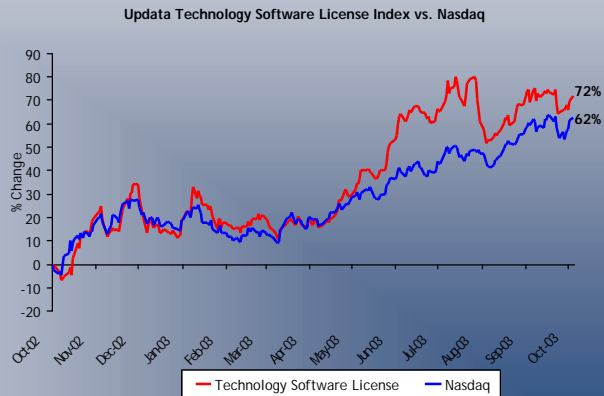
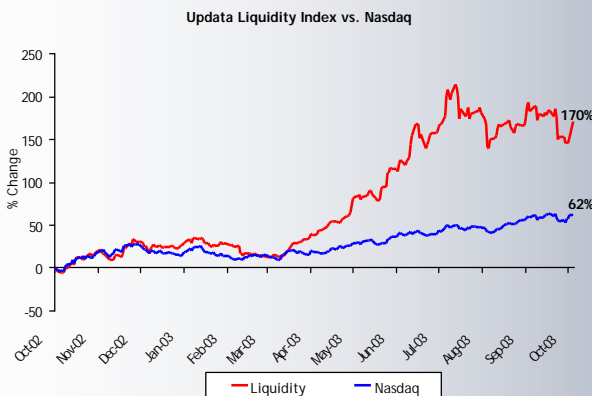
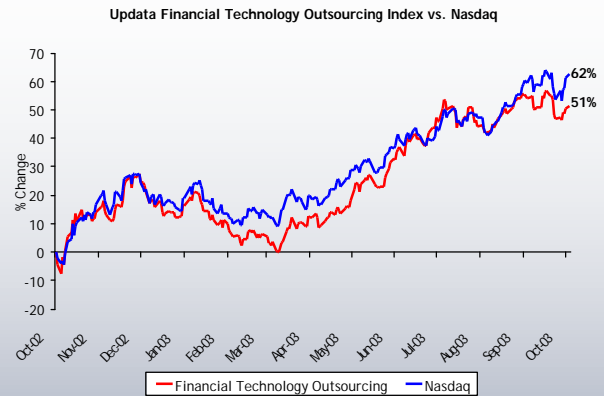
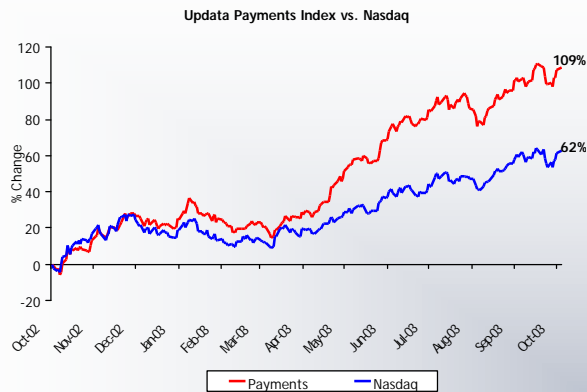
For small and medium sized banks, check imaging adoption has been fairly easy. For larger banks, it has been more difficult due to size and implementation costs.



The reasons for adopting check imaging are clear, the benefits are significant and the savings considerable. The question becomes, how do banks implement check imaging technology? Companies always have the option of using in-house resources to develop and implement the necessary technology. Depending on the electronic processing systems already in place, this may not be a bad idea. However, check processing outsourcing is critical for those institutions searching for competitive advantages as technology providers will provide best-of-breed innovation. IT solutions providers offer a range of products from high resolution imaging to software that allows check deposit capture at branch teller counters, ATMs and walk-in payment centers to processing. This software saves money by removing back office functionalities to the consumer-facing transactions in the front-office.

Electronic check imaging is driving IT purchases in financial services for software, storage and Web servers. While IT spending is down in every other business sector, the financial services industry is expected to boost IT spending by 4% this year. Currently, about half of checks in the United States are imaged and archived today, but that figure is expected to approach 100% by 2007. For IT vendors in the Financial Services space, Check 21 creates a new opportunity to refocus and capture increased revenue as the payment infrastructure needs to enhance its system in preparation for the new processing reality.

### Update Various Financial Technology Composites: LTM Price Performance



Technology Outsourcing index includes BSG, DGIN, DST, FISV, TREE, SEIC, STT, SDS, ADP, FIC, JH, ORCC  
 Technology Software License index includes SVNX, ADVS, BARZ, CORI, JKHY, INTD, INTU, JH, SONE, SCAI  
 Liquidity index includes ESPD, ITG, INET, NITE, NYFX, TRAD, CME  
 Payments index includes ADS, ACRT, EPAY, CEY, CKFR, CEFT, EFDS, FDC, GPN, NAP, TSS, TSAL, TTPA, FNDT, ORCC, INTD

## Financial Technology Company News Briefs

PORTSMOUTH, NH, Oct. 7 - **Bottomline Technologies** (Nasdaq: EPAY), a leading global technology provider of Financial Resource Management software and managed services, has announced a new outsourced service to process end-of-the-year corporate tax documents. Clients simply forward W-2 files electronically to Bottomline and the rest is done for them. Producing and mailing corporate W-2 documents typically represents a once-a-year spike in both Human Resources and IT departments' workload. HR managers hire temporary resources or just plan for an "all hands on deck" workflow crunch at this busy time. IT resources are pulled off core business projects to format files to meet the compliance document requirements. Bottomline's new outsourced service is a secure solution to the ad hoc struggle at most companies - saving time and money, and freeing resources for more effective assignments.

GLASTONBURY, CT and NEW YORK, NY., Oct. 6 - **Open Solutions Inc.**, a provider of integrated enabling technologies for community banks and credit unions, and **BISYS** (NYSE: BSG), a leading provider of business process outsourcing solutions for the financial services sector, today announced that they have expanded their strategic alliance. Under the terms of the agreement, BISYS will become the only national outsourcing provider of Open Solutions' The Complete Banking Solution® (TCBS), a relational core data processing system for banks and thrifts, which BISYS resells under the private label of TotalCS™. In addition, Open Solutions will become the exclusive provider of complementary products and services for BISYS' TotalCS offering. These products and services—financial accounting tools, loan origination, safe deposit box, premium overdraft, CRM/business intelligence, and cash management—have been designed to integrate and leverage the power of the relational TCBS / TotalCS system architecture.

PRINCETON, NJ, Oct. 2 - **Princeton eCom** launched its new Dimension payment platform in 4th quarter 2002 and completed the conversion of its existing 1400 financial institutions to the new platform in April 2003. Dimension is a suite of new, robust and scalable components replacing legacy back-end payment processing systems to support customer growth and greatly reduce user intervention. Dimension is deployed on enterprise technology utilizing Oracle® RDMS, Bea WebLogic™, Sun® Solaris™ Servers and XML message format standards. As part of this launch, Princeton eCom significantly enhanced its proprietary Digital Scanline® technology. Princeton eCom is the only company to offer Real-Time Digital Scanline® technology. This technology provides instant account validation which leads to faster processing, payment accuracy, overall customer satisfaction and higher adoption rates.

KANSAS CITY, MO, Sept. 30 (PRNewswire-FirstCall) - **DST Retirement Solutions** has completed the launch of **Manulife Financial's** mutual fund 401(k) product onto its recordkeeping platform. Manulife selected DST Retirement Solutions to provide recordkeeping services for its Manulife Retirement Select offering. Manulife Financial has expanded the very successful model it has pioneered with Third Party Administrators (TPAs) in the 5 to 500 employees market by adding a new registered mutual fund 401(k) product for mid-sized plans with assets greater than \$3 million. The new group pension product continues to provide TPA compliance and plan administration services. DST Retirement Solutions services 3.2 million defined contribution participants for 37 major institutional clients and supports all plan types, sizes and investment options. DST Retirement Solutions clients may choose from flexible outsourcing options (Manulife's selection) or an application service provider (ASP) model, depending on their unique business needs.

DALLAS, TX, Sept. 25 — **Carreker Corporation** (Nasdaq: CANI), a leading provider of technology and consulting solutions for the financial industry, announced that **Wells Fargo** (NYSE: WFC) will partner with Carreker to develop ExchgLink™ software for sending and receiving check images, which Carreker will then market to financial institutions and archive providers. The software is designed to ultimately enable banks to truncate checks entirely, exchanging only images. This will significantly reduce banks' operations and transportation costs, their need for physical operations centers, and their exposure to payments fraud. At the same time, image exchange will enable banks to develop and offer new products that meet consumer and commercial customer demand for payment information.

CLEVELAND, OH, Sept. 24, (PRNewswire-FirstCall) - **Charter One Financial, Inc.** (NYSE: CF - News) announced today that it would be migrating its consumer and small business online banking applications to Corillian's Voyager platform. Charter One also announced that it has formed a new partnership with Cash Edge to integrate account aggregation and bank-to-bank transfer functions into the Corillian product. Charter One has also reaffirmed its partnership with Centerpost to provide voice, email and wireless alerting within the application.

NEW YORK, NY, Sept. 23 - **Searchspace** today demonstrated automated Anti Money Laundering (AML) solutions based on its Intelligent Enterprise Framework at the Institute for International Research Anti Money Laundering Audit and Compliance Forum. A growing number of financial institutions have selected intelligent enterprise solutions from Searchspace to combat money laundering, including nine of the top 20 global banks.

REDWOOD CITY, CA, Sept. 17 - **Postini™**, the industry's leading provider of email security and management for the enterprise, today launched the Postini Threat Identification Network™ (PTIN), the industry's most accurate and comprehensive real-time information service on email threats and offenders. Based on Postini's proprietary transport heuristics and fueled by processing information from more than 120 million email messages a day, this unique network-based information service provides email administrators with unprecedented protection against the rapidly changing dynamics of attacks against the email system. No other email security service offers such comprehensive visibility into email activity over the Internet.

OVERLAND PARK, KS, Sept. 17 (PRNewswire) - **Digital Insight** (Nasdaq: DGIN), a leading eFinance enabler, has signed a multiyear agreement with **Sprint** (NYSE: FON) that will expand an existing relationship and help Digital Insight deliver new services to commercial and retail banking customers seeking better, more efficient ways to operate online financial services. Sprint will deliver a wide range of voice services (including 800 services). The company will also provide highly reliable frame relay data services and an extensive, advanced Asynchronous Transfer Mode (ATM) network that enables secure, high-speed communications of both voice and data through a single technology.

PLANO, TX, Sept. 15 - **Aurum Technology**, a leading provider of open and integrated technology-based solutions to Community Banks, Credit Unions and Savings Institutions, today announced that California-based Redding Bank of Commerce has signed an agreement to replace its current in-house data processing system. With locations in Redding, Roseville and Citrus Heights, the \$370 million commercial bank will implement core banking solutions from Aurum Technology to streamline operations and deliver superior service to their customers, which consist primarily of small to mid-size businesses and high-net-worth individuals.

ATLANTA, GA, Sept. 12 - Harland Financial Solutions, Inc., a subsidiary of **John H. Harland Company** (NYSE: JH), announced today that BancMidwest Corporation recently licensed its EZTeller® Enterprise Edition software. EZTeller products provide turnkey branch automation solutions, including teller line automation and fraud detection software, for the community bank market. Based in St. Paul, Minnesota, the \$300 million asset-sized BancMidwest is upgrading its DOS-based teller automation to improve operational efficiency by gaining centralized control and reporting, workstation redundancy and compatibility with the banks' PC and server technology.

ATLANTA, GA, Sept. 8 - **Alogent Corp.**, a provider of payment transaction processing solutions for global financial institutions, remittance processors, and payment processors, today announced an agreement with **Fiserv, Inc**, the leading provider of information management software and services for the financial industry, to implement Sierra Xpedite®, Alogent's patent-pending, extensible deposit automation solution, to provide real-time processing and early funds recognition of high value deposits for a selected Fiserv client.

DEERFIELD BEACH, FL, Sept. 8 - **Mosaic Software**, the global transaction processing solutions provider, announced today that Kinko's, Inc. has selected the company's Postilion EFT software solution for authorization of credit and signature debit card transactions initiated in its stores. Additionally, Postilion will be used as the corporate payments gateway solution for routing and switching transactions directly to the networks and card issuers. It will also provide stand-in authorizations at both store and corporate levels.

LOUISVILLE, KY, Sept. 4 (PRNewswire-FirstCall) -- **National Processing Company**, a leading provider of merchant credit and debit card processing and a wholly owned subsidiary of National Processing, Inc. (NYSE: NAP), announced a multi-year agreement to process Canadian credit card transactions for Starbucks Corporation (Nasdaq: SBUX). NPC currently provides authorization and settlement services for all U.S.-based MasterCard®, VISA® and Diners Club® transactions for Starbucks' retail, catalog and on-line sales. Under the terms of the latest agreement, NPC will provide authorization and settlement services for all Starbucks' Canadian MasterCard and VISA transactions as well.

## Upcoming Financial Technology Events

October 14 - 16, 2003:	6 <sup>th</sup> World Financial Information Conference, Washington D.C.
October 15 - 17, 2003:	12 <sup>th</sup> Annual Credit Card Collections Conference, Orlando, FL
October 16 - 17, 2003:	Financial Services Marketing Symposium, Chicago, IL
October 27 - 28, 2003:	ATM & Debit Forum, New Orleans, LA
October 29 - 30, 2003:	Networked Financial Services Forum, New York, NY
November 2 - 5, 2003:	AFP 24 <sup>th</sup> Annual Conference, Orlando, FL
November 6 - 7, 2003:	2 <sup>nd</sup> Annual Financial Services Outsourcing Conference, Washington, D.C.
November 18 - 20, 2003:	BAI Retail Delivery 2003, New Orleans, LA
November 19, 2003:	Udata Capital Financial Technology Reception, New Orleans, LA
December 8 - 9, 2003:	5 <sup>th</sup> Annual Mortgage EC Conference, Las Vegas, NV

## Recent Financial Technology Private/Venture Capital Financing

Date	Company	Description	Amount Raised (Mil.)	Investors
Sep-03	Princeton eCom	An application service provider of innovative payment solutions.	\$5.0	Lazard Technology Partners, New Century Equity Holdings, Mellon Ventures and Terra Lycos Ventures.
Sep-03	Gain	Provider of online currency trading services.	\$10.0	New investor Tudor Ventures funded the entire round, which gave the company an increased valuation.
Aug-03	Zenodata	A stealth-mode company targeting financial services markets	\$13.0	New investor New Enterprise Associates led the round; Austin Ventures and Sequel Limited Partnership were also new investors. Individual investors from Series B returned for the up round.
Aug-03	Way Systems	Provider of point-of-sale products designed for use with GSM phones	\$3.6	ND
Aug-03	Works	Provider of electronic payment management software	\$7.1	Existing investor Adams Capital Management led the round, which included participation from previous investor Trellis Partners and individuals.
Jul-03	Micropayment	Developer of a micropayment system for online content	\$1.5	Garage Technology Ventures, Cardinal Venture Capital, Amicus Capital, Constantin Partners
Jul-03	Entigo	Provider of warranty program management software	\$3.0	Boston Millennia Partners, Ascent Venture Partners, North Hill Ventures, Birchmere Ventures, Advent International, Four Seasons Venture Capital
Jul-03	GoldK	Retirement-plan technology	\$7.0	Lazard Technology Partners, TH Lee Putnam Ventures
Jul-03	BitPass	Developer of a micropayment system for online content	\$1.5	Garage Technology Ventures and Cardinal Venture Capital co-led the round, which also included Amicus Capital and Constantin Partners.
Jun-03	Zoologic	Provider of Web-based financial courseware	ND	Conning Capital Partners, Irwin Ventures
Jun-03	Network365	Provider of a mobile payment and service delivery software platform for wireless operators	\$12.0	Advent Venture Partners, Amadeus Capital Partners, Trinity Venture Capital, JAFCO and Enterprise Ireland

## Financial Technology M&A Activity

(\$ in Millions)

Date Closed	Seller	Buyer	Deal Value	Mult of Revenue
Pending	Forbatec	SunGard	NA	NA
Pending	Advisorport	PFPC Worldwide	NA	NA
Pending	Loansoft	GHR Systems	NA	NA
Pending	Bancmetrics	COR Financial	NA	NA
Pending	Financial Technologies	NetBank	\$17.0	NA
Pending	Innovative Merchant Solutions	Intuit	\$116.0	4.6x
Pending	Pearl Treasury Systems	NetSol Technologies	ND	NA
Pending	Eposs Limited	Western Union	ND	NA
Pending	Advent International Corp.	Global Payments Inc	\$200.0	2.9x
Pending	Narex	Fair Isaac	\$10.0	NA
Pending	Chex Services	Cash Systems	\$31.5	NA
Pending	Atlantic Data Services	ADS Acquisition Parent	\$32.3	1.5x
Pending	London Clearing House	Clearnet	ND	NA
Pending	American Stock Exchange	GTCR Golder Rauner	\$110.0	NA
Pending	Concord EFS	First Data	\$6,748.3	3.1x
Pending	AVT Technologies	Reuters	ND	NA
Sep-03	Timberline Software	Sage Group	\$97.4	1.5x
Sep-03	Lexit Group	NeoNet	ND	NA
Sep-03	WebTone Technologies	Fidelity National Financial	ND	NA
Aug-03	Sherwood International	SunGard Data Systems	\$105.7	1.3x
Aug-03	LendingTree	InterActiveCorp	\$716.1	5.5x
Aug-03	Card Payment Solutions	iPayment	\$16.0	NA
Jul-03	Fair Disclosure Financial Network's Businesses	CCBN	ND	NA
Jul-03	Renaissance Trading Technologies	NYFIX	\$7.5	NA
Jul-03	Chase Credit Research and Chase Credit Systems	Fiserv	ND	NA
Jul-03	EDS' Credit Union Industry Group Business	Fiserv	\$218.0	1.9x
Jul-03	Income Dynamics	Intuit	\$10.0	NA
Jul-03	Billserv	CyberStarts	\$4.8	1.1x
Jul-03	mPower	Morningstar	ND	NA
Jul-03	Certen	Amdocs	\$66.9	NA

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