

Financial Services Clipsheet – ARC Edition May 24, 2004

ARC Opt-Out Option Now Official Confirming what is already the practice of most organizations using Accounts Receivable Entry (ARC), the voting members of NACHA have approved an amendment to the Accounts Receivable (ARC) Entry rules that requires companies that originate ARC payments to provide consumers the option of not having their checks converted to automated clearing house (ACH) debits. The provision becomes effective on June 11, 2004. According to NACHA, the new rule will likely have little practical effect as 93 percent of companies that originate ARC payments surveyed report that they already offer opt-out. In many cases, less than 1 percent of consumers are electing to opt-out. "Consumer acceptance of check conversion has been extremely high," said Elliott C. McEntee, president of NACHA. "NACHA's new rule ensures that the small percentage of consumers who prefer not to have their checks converted will be accommodated." Consumers who opt-out of check conversion may still experience electronic check processing. Beginning on October 28, 2004, all checks become eligible to be processed electronically under the framework established by the Check Clearing for the 21st Century Act. The ARC application became effective on March 15, 2002, and allows checks delivered to remittance and lockbox locations to be converted into ACH debits. NACHA estimates that in 2003, there were 220 million ARC payments, including on-us payments. ARC is used almost entirely for consumer bill payments such as credit cards, mortgages, insurance, and telecommunications.

DeepCove Labs Partners with Aqubanc 5/24 DeepCove Labs of Vancouver, British Columbia announced Aqubanc, LLC of Buffalo Grove, IL as their first reseller for RAVEN, their accounts receivable check converter. RAVEN is installed with Digital Check TS 350 scanners in sites since 2002 when Accounts Receivable Check Conversion was becoming prevalent.

Digital Check compact single feed check scanner 5/19 *Businesswire* Digital Check announced the release & first shipments of the new TellerScan TS 210 check scanner. The TS 210 is DCC's latest addition to the world's most comprehensive line of low cost check scanners. Over 25,000 DCC countertop check scanners have been installed or ordered worldwide, including the largest teller-window installation in the world, & up to 90% market share in Singapore's "Check Truncation" market. The TS 210 is a compact (only 5" x 8" footprint), low cost, dual sided check scanner for the teller window, corporate customer, or other applications, that can scan at the rate of up to 30 checks per minute. The TS 210 is ideal for capturing items quickly at the teller window, in commercial environments, for low volume ARC payments, check cashing, or for back office reject/re-entry exception items. It features 2 separate scan heads to scan both sides of the check quickly, while magnetically reading the check's MICR codeline data, & an optional inkjet printer provides inline endorsements on the back of each check prior to scanning. Image output is 24 bit color, 8 bit or 4 bit grayscale, & black & white. John Gainer, Digital Check said, "This new scanner is based on the world's top selling front office scanner - the TS 220. It is an ideal replacement for those users who have individual MICR readers installed, but now want to capture a complete image of the check as required under Check-21 legislation. The TS 210 offers DCC's Best Read MICR to yield the most accurate MICR red rates, while providing the highest quality images & maximum CAR read rates. TS 210 incorporates the latest color & grayscale scanning technology giving a crystal clear image of even the most demanding checks, & operates twice as fast as our TS 200. Our latest HP programmable endorser has been improved to provide more than double the capacity of competitive units with an estimated 5-7 million characters printed before changing, yielding 250% to 300% more capacity at half the cost. The TS 210 shares a common API with all other TellerScans, which means that the TS 210 can be easily mixed with other DCC TellerScan units without re-programming. It means that increasing check volumes can be quickly accommodated by upgrading to a faster model such as the TS 220, TS 350 or TS 400 without application changes, & software maintenance becomes less costly."

Alogent's & SunTrust 5/19 *Businesswire* Alogent announced that SunTrust Banks has selected its Sierra Xchange, Unified Payments Gateway solution, which operates as an intelligent payment processing & image exchange engine. Using Alogent's Sierra Xchange, which collects, corrects, balances & distributes paper, data & image transactions from all points of origination to multiple, configurable endpoints, SunTrust will perform image quality analysis, & send & receive images & data through image cash letters. Images & data will initially be received from & sent to the Viewpointe Image Share service. Viewpointe is the largest national shared archive for check image & retrieval services. In addition, Sierra Xchange will perform image quality analysis on images from the SunTrust in-house image capture systems. SunTrust will benefit from increased processing quality & speed, & reduced costs, & from a platform that provides a transparent transition to image exchange. "As image exchange agreements, quality standards & third-party clearinghouse participation continue to evolve, banks are challenged with accommodating a variety of image exchange alternatives, & near constant adaptation to change," Brian Geisel, CEO of Alogent, said. "While banks can implement varied solutions to accommodate multiple imperatives, SunTrust has recognized it is far more efficient & cost effective to partner with a company that can provide a flexible payments gateway to accommodate all inputs, outputs & workflows. We are extremely pleased to assist SunTrust with its transition to full image & data exchange." SunTrust's Lee Crocker, said, "Our partnership with Alogent is a key step in the recognition of our image share & exchange objectives. With the Sierra Xchange solution SunTrust will be positioned to more rapidly adapt to the changing payments landscape, while continuing to provide exceptional service to our customers." "Financial institutions need to re-engineer their check processing operations as they deal with reduced volumes & check truncation," said Robert Hunt, TowerGroup. "This revitalization of the business process, however, has to be aligned with systems that are highly scalable for meeting peak demands & are flexible in design to meet changing business & regulatory requirements." The paper payments processing landscape is transitioning to a mix of paper, data & image. Sierra Xchange enables banks to efficiently converge paper, data, & image to process both intrabank transactions originating at branches, ATMs, cash vaults & merchant locations, & interbank data & image exchange.

AT&T wins SVPCo contract for image exchange network 5/19 *PRNewswire* AT&T announced that SVPCo, a payments company owned by 22 of the nation's largest banks & The Clearing House, has signed a multi-year, multi-million dollar contract for a networking solution that enables the reliable & secure exchange of digital check images among financial institutions of all sizes across the US. In addition to check images, the network will serve as an industry utility to carry other types of payments & payment information, such as real-time retrieval of demand deposit account information & other data-sharing as needed between business partners. The AT&T solution supports SVPCo's cutting-edge Check Image Exchange

application that will facilitate "check truncation" processes that significantly speed up & simplify check clearing. The application replaces traditional costly physical transport of paper checks with network transport of digitized check images. The Check Image Exchange will be the first application deployed across the network & is designed as an open system where all banks, all sizes, in all locations, can clear & settle images directly or through other parties. This network will leverage a single connection, allowing participants to consolidate infrastructure & costs. "AT&T has the technology & experience to build & manage this major network, which must integrate the telecommunications services from carriers across the country," said Hank Farrar, President & COO, SVPCo. "They share our vision to make the Image Exchange accessible & cost-effective for all financial institutions, by leveraging existing relationships with carriers over one integrated network." SVPCo banks represent 61% of US Commercial Bank deposits & over 60% of the checks in the US in the check clearing process. Industry sources estimate efficiencies gained with check truncation will translate to more than \$2 billion a year in savings for financial institutions. The new network-based Internet Protocol Virtual Private Network (IP VPN) will employ leading-edge network technology & be based upon a scalable architecture that can easily grow to meet the changing needs of the exchange. The innovative network design allows for private, secure, high-bandwidth, high-availability data exchanges among network participants. The network combines the best qualities of a peer-to-peer exchange with a managed network, & features multiple, diverse carriers for resilience & efficiency. Banks will be able to interconnect to the network through circuits provided by SVPCo, or through their own carrier in order to leverage existing relationships. Smaller institutions will be able to use the Internet to interconnect with the private network through a secure SVPCo gateway. The solution supports SVPCo's business continuity plan with redundant access to the IP VPN & a second carrier's network. The unique agreement calls for AT&T to integrate & manage both networks, including managed router, hosting & security services designed to prevent disruptions & to share network traffic. "As banks move to all-electronic check transaction processing, the network becomes central to our business. Our strategic objective is to create a national utility with one connection, one payments system network to clear & settle images & other types of payments, such as CHIPS, ECP, ACH, bill payment EDI & more," added Farrar. "Once we move to image, we have a new payment system environment, & the concept of 'network downtime' is simply not tolerable. AT&T has the networking expertise & professional flexibility to build & manage a redundant, multi-vendor solution that meets our reliability requirements & serves the needs of financial institutions & their customers." New uses of check imaging systems are made possible with the passage of the "Check Clearing for the 21st Century Act" that was signed into law last October. It was enacted as a result of the Sept. 11, 2001 terrorist attacks when Congress saw the need for systems to process checks during national emergencies & to modernize the payments system. The act creates a new negotiable instrument - called a substitute check - which permits banks to digitize original checks, process check information electronically, & deliver substitute checks electronically to banks that want to continue receiving paper checks.

Carreker & Fidelity 5/19 PRNewswire Carreker & Fidelity Integrated Financial Solutions announced an alliance in which Carreker will offer Check-21 Readiness consulting services to the more than 1,300 financial institutions that comprise Fidelity IFS' client base. Carreker's Check-21 Readiness Program consists of a variety of offerings including an intensive 2-day workshop designed for all areas of a bank impacted by Check-21. It is delivered on site at the client bank, tailored to the bank's business strategy & technology environment & focused on ensuring that the bank's Check-21 response is synchronized across the enterprise. It includes a comprehensive post-workshop analysis of the relative preparedness of each area of the bank & a detailed report that guides the bank's ongoing preparations & prioritization. Carreker offers a series of advanced Check-21 Readiness Webinars, designed to provide the participants with a complete understanding of the critical tasks associated with Check-21. "As Check-21 promises to produce some of the most sweeping changes that the financial services industry has witnessed in years, we wanted to form an alliance with a proven leader that could help our entire client base get prepared to fully realize the benefits & recognize the challenges that Check-21 will bring," said Gary Norcross, Fidelity Integrated Financial Solutions. "This alliance allows both parties to extend their market reach & penetration, Fidelity by leveraging Carreker's well-established name to gain access to clients that we may not normally be able to reach & Carreker by delivering their Check-21 Readiness Program to our extensive client base." "It's obvious to us that financial institutions that outsource key processes have a double challenge in preparing for Check-21 - making sure that their requirements are compatible with the outsourcer's Check-21 offerings & more importantly continuing to provide their customers & members with the same high levels of service," said Steve Hill, Carreker. "Through this alliance Fidelity is clearly demonstrating its commitment to its clients by expanding its product offerings to ensure that clients have access to a customized Check-21 educational resource that will help them successfully transition from a paper-based payments system to an image & electronic exchange processing environment." "Our bank was able to realize immediate short & long-term benefits from this alliance," said James Riley, Wilmington Trust, a Fidelity client who selected Carreker's Check-21 Readiness Program. "The most important implications of Check-21 that the 2 organizations helped us to quickly understand were customer education, employee training, & IRD receipt/processing. Just helping us to prepare for the impact in these critical areas was vital to our Check-21 strategy. In addition, the Workshops allowed us to begin planning for important issues that will affect us over the coming months & years such as source capture, image exchange, & payments migration." Denny Carreker said, "This alliance reinforces our leadership role in providing banks of all sizes with successful Check-21 migration strategies. Carreker's tailored workshops offer Fidelity's client base of 1,300 financial institutions the ability to maximize the opportunities & minimize the risks associated with Check-21." In addition to its Check-21 Readiness & Assessment training Carreker offers a full range of Check-21 consulting including Customer Awareness Seminars, image migration planning, & implementation & integration services, & Check-21-related technology for distributed capture, image exchange, IRDs, image quality, & image-enabled back office functions.

Clearing House & Vectorsgi 5/19 Businesswire The Clearing House & Vectorsgi announced today at BAI's TransPay 2004 conference that development has been completed to directly link the Vector Research Solution, software for managing disputes, & EDIBANX, an online check adjustment system. The interface allows financial institutions to upload & download batches of adjustments into EDIBANX to & from their case management system, eliminating the need for manual re-entry. These adjustments are then exchanged online between financial institutions, greatly automating the adjustments resolution process. "Check adjustments are typically the most expensive transaction in a financial institution, because they require extensive research & a high level of security," said Jerry Milano, Senior VP of The Clearing House Check Services. "This new interface allows us to reduce costs in the industry, increase the speed of error resolution, & maintain security." Both the Vector Research Solution & EDIBANX automate portions of the adjustments process. Together, these 2 systems further streamline the entire adjustments process. Vector Research Solution is a leading case management system for managing disputes from notification to resolution. EDIBANX is an online adjustment system that allows financial institutions to enter, exchange & settle adjustment transactions using standard web-based forms with extensive edits to ensure accuracy the first time. "EDIBANX & Vector Research Solution are capabilities that work well together & we are pleased to offer this solution to our existing & prospective clients," said Larry Best, Director of Marketing for Vectorsgi. "This is a great example of how we are continually enhancing our

offering to improve the efficiency of financial institutions' operations."

The interface has been in production at ABN AMRO LaSalle Bank in Chicago for several years & is now available to financial institutions of all sizes, all locations. "We are very satisfied with the performance of this solution," said Estee Dempster, First VP, ABN AMRO LaSalle Bank of Chicago. "It has improved the process in our operation considerably, which is good for our customers & our bottom line."

Document Security Systems check protection technology 5/19 PRNewswire Document Security Systems will demonstrate & hand out samples of its new DSS 3000 Pantograph that was built to meet the new Check Processing systems under the Check-21 Federal Reserve Bank regulations. Banks are required to create digital copies of an original check for processing throughout the banking system. None of the older security pantographs sold by traditional check & forms printers have had much success with the new scanners. Document Security Systems, Inc.'s new technology was built exclusively to provide authentication & security for the new generation of high-speed check processors being installed in the banking industry to accommodate the regulatory guidelines. "Our new bank check protection technology was tested at the On-Demand trade show held recently in New York City by several of the new check processors & the results were 100% effective," said Patrick White, Document Security Systems, Inc. "To our knowledge, our check protection technology is the only format in the check & forms industry today that accommodates this type of high-end scanning & processing, guaranteeing that our hidden security feature survives the scanning process thereby insuring the integrity of the original check." In addition to performing demonstrations & handing out samples of the new technology to trade show attendees, Document Security Systems, Inc. will be giving out licensing & specification guidelines to both end users (banks) & security printers. Document Security Systems, Inc. is a technology company with patents in printed security features, which prevent forgery, duplication, counterfeiting, copying, scanning & re-imaging for any type of printed documents, labels or packaging.

Mobius, Alogent & Check-21 5/19 PRNewswire Mobius Management Systems & Alogent announced a partnership to provide seamless integration & interoperability of Alogent's Sierra Xchange, Unified Payments Gateway product with Mobius's ViewDirect TCM repository. To prepare for check truncation & image exchange enabled by The Check-21 Act, financial institutions must be capable not only of converting checks to images but of managing the resulting images & data across the enterprise. Check-21 facilitates the capture, validation, & processing of check images at an array of points of presentment including branches, ATMs, merchant locations, & distribution to multiple endpoints including internal & external archives, other banks, IRD creation, & image exchange networks. A key imperative is the tight integration of image workflows with an archival system that allows efficient image storage & retrieval of both images & data associated with transactions. "Our customers are working aggressively to prepare for the post-Check-21 environment," said Joseph Tinnerello, Mobius. "They have implemented our ViewDirect TCM archive as the foundation for taking full advantage of check truncation. Our partnership with Alogent & ViewDirect TCM integration with Sierra Xchange will give them additional leverage in making the transition from paper to electronic processing." Alogent's Sierra Xchange is the payments gateway & integration technology to Mobius's total content management solution & image archive. Sierra Xchange collects, examines, corrects, balances, & distributes paper, data, & image transactions from all points of origination, to ensure transaction integrity, reduce cost, improve quality, & maximize efficiency & profit. It is a virtual check processing engine that provides image workflows from the moment a check enters the processing stream, to its distribution to endpoints based on cost, profit, & float criteria. Mobius's highly scalable ViewDirect TCM repository serves as the foundation for enabling software that meets a broad range of content-intensive e-business & application requirements. Capabilities include content integration; Web site, document & digital asset management, workflow & imaging, e-presentment & payment, enterprise report distribution, check image archiving & more. In the context of Check-21, the ViewDirect TCM repository is used for storage & retrieval of check images & data. These images can be used to print IRDs & other forms of inter-bank exchange. Beyond its role in check truncation, the ViewDirect TCM archive provides high-speed, multi-index access to checks & other business documents for customer service, customer self-service, duplicate detection, fraud prevention, trend analysis & more. ViewDirect TCM integrates check images with information from other sources-statements, signature cards, reports, correspondence & more-to provide a 360° view of the customer. "There is significant synergy in a partnership between these 2 companies," stated Robert Cohan, Alogent. "Alogent brings point of presentment & image workflow expertise, while Mobius brings best in class archiving & content management capability & experience. The marriage offers a unique solution that offers significant value to customers who are addressing an end-to-end payment processing challenge." According to Paul Abbott, Mobius, "Check-21 responds to the critical need for greater efficiency in US payments systems. Image archive technology is at the heart of this new process. It is this technology that will allow banks to take advantage of check truncation & to realize the benefits. Software such as Alogent's Sierra Xchange, in conjunction with the ViewDirect TCM archive, can go a long way to address these issues & provide a solution for straight through processing."

NetDeposit staff change 5/19 SanJoseMercury Privately held NetDeposit, a San Mateo provider of end-to-end electronic check processing, named Mary Hockridge senior VP of marketing. Hockridge will oversee the market development of Check-21 products & services for banks, third-party processors & commercial businesses. Most recently, she was a member of the management team at Carreker, serving in its image exchange & archive business units.

NetDeposit accelerates Check-21 migration 5/18 PRNewswire NetDeposit announced the next generation of its flagship software products, NetDeposit Remote for Business & NetDeposit Decision Gateway. NetDeposit offers banks, commercial businesses & third-party processors a robust, highly scalable technology platform to accelerate their Check-21 migration path to full image, while creating new revenue generating products & realizing dramatic operational cost savings in check payment processing. These announcements come on the heels of yesterday's announcement by Fiserv, the nation's largest third-party check processor & NetDeposit to pursue an agreement to offer Check21 solutions to Fiserv's 1,700 check-processing & 7,000 account processing clients. The initiative provides a comprehensive electronic check processing system by combining best of breed solutions from Fiserv's national distributed print network & ImageSoft's image quality & security software with NetDeposit's core competency to support distributed multi-bank networks. "NetDeposit is poised to take the lead in Check-21 implementation with its innovative payments platform & strategic partnerships to deliver the full benefits of check electronic & truncation from image capture through presentment," said Royce Brown, NetDeposit, Inc. "NetDeposit's proven software solutions have been in production for 2 years, offering a consistent customer experience within highly complex, multi-bank environments. By teaming with industry leaders such as Fiserv, we're ready to help organizations realize both profits & savings now, when Check-21 goes into effect in October & beyond." NetDeposit Remote for Business allows retail & commercial businesses with multiple locations, branch banking & ATM operations the ability to scan & capture check images to create electronic deposits. In production at major banks' customer sites for over 2 years, NetDeposit's next generation Remote for Business 4.0 includes

flexible installation options on CD, Network or WEB, & BITS compliant security. In addition, 4.0 includes role based authentication & improved scalability & reliability through new load balancing & fail-over capabilities. For virtual sorting & routing to all payment channels including Image Exchange, ACH or IRDs, the NetDeposit Decision Gateway provides a powerful rules-based decision engine that selects the optimal payment clearing channel at the item level. With NetDeposit, customers are not limited to one clearing method or strategy since the NetDeposit solution has been designed for interoperability on both the front & back end. In production at major banks & commercial businesses, NetDeposit's next generation Decision Gateway provides web-based tools to configure system rules & reporting, audit log tracking, & generation & delivery of customized posting files & full settlement reporting. The Decision Gateway has been on the market the longest of all the virtual sorter, generation processing gateways & in production, delivering efficiencies since 2001. "With NetDeposit businesses have an incredible migration app for making image deposits that can take advantage of current & future processing channels without investing in multiple platforms & operations. We've been depositing electronically over the past year & are able to take advantage of improved availability & greater efficiency in our cash management operations," says Peter Winder, Sysco Intermountain & NetDeposit customer. "We are ready for & look forward to the incremental value of Check-21 & image exchange."

Panini Check Scanner 5/19 *Businesswire* Panini SpA, a global provider of check processing solutions, announced the release of My Vision X Small Feeder, the next generation check scanner for distributed item processing & image capture. Building on the established success of the My Vision X series, in addition to those same features & capabilities, the new small feeder version has an automatic feeder capacity limited to 30 documents. My Vision X Small Feeder is a specific version created for teller image capture, where the average number of documents per transaction is smaller than back office operations. With the Small Feeder option, the My Vision X can be purchased inclusive of its unique automatic feeding technology with a limitation to the size of the batch, now at 30 items. This provides a more competitive pricing structure to the market, while still allowing financial institutions to upgrade at any time to the full feeder performance. All versions of the My Vision X product suite are scalable, with a software upgrade allowing users to grow a present solution to a higher performance while protecting the initial investment. "Panini strives to develop products that offer greater flexibility, providing the clients with possibilities to add new features to better suit each institution's unique requirements," Dave Youngerman, president of Panini North America said. "By launching this new version of an established brand, Panini is expanding the scope of its offerings to increase the appeal & competitiveness of our products without compromising quality." My Vision X is a small check scanner, created to read the check code line, capture the front & back of the check & print customized endorsement information. Standard features of the product include a patent-pending 3-mode feeder, MICR Plus recognition technology, programmable one line rear ink jet, a USB 2 interface, a 30 or 100 document feeder & the front & rear image capture of up to 4 images at 200 dpi. As check volume at the teller window varies from each institution, automatic feeding is a distinct advantage for its users. Even when the average number of documents deposited is small, the automatic feeder check scanner offers significant value & time savings, allowing the user to focus on additional tasks, thereby maximizing efficiencies.

Silver Bullet Technology & FSTC 5/19 *Businesswire* Silver Bullet Technology, Inc., the provider of the universal check scanner interface software called Ranger, has joined FSTC, a consortium of leading North American-based financial institutions, technology vendors, independent research organizations & government agencies. As a member of FSTC, Silver Bullet will collaborate with large banks & software vendors to develop industry standards & solutions related to check scanner hardware, image quality & MICR quality issues. FSTC encourages collaborative development pilots, proofs-of-concept & demonstrations supported by member financial institutions & technology companies. The goal of FSTC is to bring open standard technologies to financial institutions, providing infrastructure for future products in the market. "Silver Bullet is in the unique position of working with both, check scanner hardware & software vendors, providing us greater insight to issues facing the financial industry," said Joe Dean, Silver Bullet Technology, Inc. "This industry knowledge affords us the opportunity to be a valuable resource, & we look forward to sharing our knowledge with the members of FSTC. We expect to be able to assist FSTC in implementing image quality, MICR quality & related standards." In addition, FSTC allows members to participate in special interest groups that focus on a host of technology issues impacting community banks, from check truncation to authentication technologies. "FSTC provides a fertile proving ground for solutions providers to work with the banking industry on emerging technology opportunities," said Zachary Tumin, FSTC. "Our members are delighted to have Silver Bullet Technology as a member & look forward to working with the firm on new checking initiatives." FSTC provides a R&D environment, in which members can compare side-by-side comparisons of technical solutions being offered in the market. The organization is often solicited to validate early implementations of industry specifications, ensuring that products being offered confirm to those standards & can deliver on its promises. Members can prototype new infrastructures for financial institutions. FSTC has a program that allows members to prototype interoperable infrastructures through design & 90-day implementations. Benefits include the ability to uncover development opportunities for new products & services.

US Bank & Vectorsgi 5/19 *Businesswire* US Bank, a subsidiary of US Bancorp, the eighth-largest financial services holding company in the US, announced it has experienced a substantial success rate in check-image capture since implementing Vectorsgi's high speed image capture solution, Vector:Capture for Prime Pass. Since its deployment earlier this year, the bank has gone through periods where it routinely captures & processes more than 50 million images without missing a single image, a success rate better than 6 Sigma standards. US Bancorp, which operates 2,199 banking offices & 4,575 ATMs in 24 states, set an objective of capturing images at the prime pass stage in order to maximize use of on-us items for image work on "day two" processes, image statements & image exchange through the ViewPointe image archive & SVPCo. To facilitate this initiative, the bank purchased several configurations of Vector:Capture for Prime Pass, & Vector:ImageEX, which provides image exchange. "We recognize the importance of image quality which is why we chose Vectorsgi for this important piece of our imaging strategy," said Tom Rea, US Bank. "As more banks begin to exchange images the greatest single issue will be the quality of the images exchanged. I am proud to say that US Bank has a system that produces images of the highest quality, & an imaging partner that has made image quality its top priority." Inferior quality images can have long ranging cost impacts on the depository & paying banks & customer satisfaction. Poor quality capture leads to missing images, which occur when the data line on a check is captured but no matching image exists. Items with missing images cannot be processed without significant manual work & are sometimes simply written off by the bank. "US Bank has established itself as a leader in the banking & financial services industry," said Sydney Smith Hicks, president & CEO of Vectorsgi. "The era of image capture & image exchange presents new challenges & opportunities for the entire financial services industry. By developing an aggressive & ambitious imaging strategy, US Bank has shown that it will continue in its role as an industry leader." US Bank recently began capturing images of prime pass items in all eleven of its designated capture sites giving the bank full image capability for its entire prime pass capture volume. Vectorsgi is an active proponent of industry-wide standards for

the quality of check images exchanged between financial institutions & is leading the way in assisting banks to meet that goal with its line of Vector software products. These image-related products have built a strong reputation for performance - no other system can populate an image archive as accurately & reliably. Vector:Capture exceeds 6 Sigma performance standards - the products are scalable, & will run on many image capture devices from desktop models to IBM 3890/XP transports, in any quantity either centralized or distributed. Vector:Capture for Prime Pass has proven to be the easiest & most economical system of its type to install.

Wells Fargo online banking for corporations 5/19 Businesswire The future of banking for medium- & large-sized corporations is being shaped on the outskirts of Silicon Valley, but the move is not being led by a software company or tech startup. Instead, a group of internet visionaries at Wells Fargo internet division are leading the charge towards a new era of online banking, which centers on customized service, speed & convenience. The next winners will be Wells Fargo's corporate customers, who will soon see an industry-leading suite of internet banking services take another giant step forward. The next generation of online banking from Wells Fargo primarily focuses not on what but on how we deliver information to customers. It's giving customers the information when, where & how they need it to do their job effectively & more efficiently. "We've re-engineered our internet portal starting with a number of challenges raised by our customers, who answered the call to brainstorm ways that the Internet could meet their financial services needs in the future," stated Steve Ellis, Wells Fargo. "With that input in mind, the Wells Fargo team got together & brought the future to life." The important advances, many of which are outlined below, have dramatically improved Wells Fargo's Commercial Electronic Office (CEO) offering, which was considered by many observers & analysts to be the industry leader for corporate banking customers. As an early adapter to Wells Fargo's award-winning Commercial Electronic Office (CEO) portal, Oracle has never looked back. Commented Philip Rice, treasurer of Oracle Corporation: "The CEO portal has significantly improved our ability to access detailed account balance information, track transactions, & make quick investment decisions 24/7. We use the CEO for foreign exchange activity, ACH & wire transfers & for daily treasury information reporting. The CEO allows for great security controls & more flexibility in how we download our reports. We can view all our positions in any form we want, & customize the reports to see only the data we want to see, all in real-time, enabling us to make faster, better decisions. We would certainly recommend the CEO to other corporations." - CEO Event Messaging: Event Messaging Service enables Wells Fargo to push information out to customers with notifications that: - An incoming wire has just been received or rejected - A wire is awaiting approval - A wire has been successfully or unsuccessfully processed by the bank - Positive Pay exceptions are ready for review The introduction of CEO Event Messaging Service reinforces Wells Fargo's innovative customer-centric approach, which provides customers critical information however & whenever they need it. CEO Event Messaging Service is the most robust product of its kind now in use. - CEO Portlets: "Portlets" provide a customizable snapshot of key account balances & critical report data for CEO customers that appears immediately upon log-in. After viewing the overview information in their portlet, customers can obtain more detail by clicking on a link that takes them to the actual application within CEO, such as Account Balance or Treasury Information Reporting. New portlets will be continually added based on the individual customer's needs (near-term possibilities include initiating wires, stop payments & search requests), & over time new features will be added to the portlets such as key Wells Fargo contacts & realtime alerts. - Customer-Centric Servicing: Customer service is critical to the success of any online offering. As Danny Peltz, Wells Fargo, points out, "It's not just what innovative products we offer, it's more about how we deliver them. We spend a great deal of time ensuring that our online offerings are easy to learn & master." 3 cutting edge examples include: - TeaLeaf Technology (www.tealeaf.com): A one-of-a-kind solution that allows bank operators to identify problems immediately, reproduce them, rapidly isolate causal factors & prevent them from reoccurring. It offers real-time playback capability - a servicing agent can follow every click & action a customer performed during a session. Bank operators can proactively diagnose customer behavior & prevent potential customer errors & identify customer training needs. Errors that may have taken several days to diagnose can now be identified & resolved in a matter of hours. - iCEO: An internal tool modeled after the Commercial Electronic Office customer portal. iCEO connects all of our disparate sales, service & delivery tools through a single sign-on, centered on the customer's needs. It requires minimal training & can be personalized to the role & workflow of the user. It will enable the internal users to react at the speed of customer demand, stay oriented around the customer's life cycle & share data & tools with the customer CEO portal. - ServiceView: Delivered through iCEO, a servicing platform that will help deepen the bank's customer relationships by providing customer service agents a complete view of the customer's servicing experience across all wholesale lines of business. Unlike most siloed servicing centers that operate independently & have minimal communication, ServiceView will provide one, consistent view of the customer, regardless of which Wells Fargo business group they are dealing with. Understanding the customer's experience across wholesale will transform the way we provide service to our customers, allowing us to proactively analyze potential issues & recommend solutions to streamline their workflow & create greater efficiencies. - Self-Directed Tools for Customers: The CEO platform was designed to allow administrators to perform many tasks that had previously required a phone call to the bank, saving customers time, giving them more control, & making their jobs easier. Some of the self administration tasks administrators can carry out include: - Reports that show what products & accounts the users in the company have access to - Add new users & administrators - Reset passwords - Disable users - Add & update access to a variety of Treasury Management services - Online tutorials, which offer class-leading depth & functionality.

Wells Fargo & NCR's ImageMark Transaction Manager 5/19 Businesswire Wells Fargo selected NCR ImageMark Transaction Manager as its strategic, check-image platform for processing supporting multiple image capture devices & received image files. Wells Fargo is deploying this technology at its 15 check-processing centers, making it one of the largest image-based check-processing operations in the US. This strategic commitment follows the successful implementation of NCR's image-based technology at Wells Fargo's Tempe, Arizona operations center. Wells Fargo plans to complete its system rollout by year-end. This platform will perform validation, automatic character recognition, exception processing & balancing, lowering costs & improving production efficiency & the delivery of quality service. "ImageMark Transaction Manager allows us to efficiently use electronic images to consolidate processing from multiple item streams into a single workflow process to eliminate disparate back-end processes. It provides us with a foundation for processing high-quality data & images. These capabilities are critical in our preparation for check-image exchange," said Kevin Mitchell, senior VP, Wells Fargo. ImageMark Transaction Manager's advanced image & data workflow technologies can be utilized from multiple deposit streams including branches, ATMs, commercial locations & in-bound image ECP items from other banks. This system completes the processing of all check-based transactions, & readies them for the next step: archiving, image exchange & image-replacement document creation. "We plan to capture images as close to the point of presentment as possible. ImageMark will be a significant part of our overall payment image strategy," said Kevin Dabney, executive VP, Wells Fargo. "Wells Fargo is aggressively positioning itself to take advantage of Check-21 & the market opportunities it creates," says Joe Kniceley, NCR. "NCR ImageMark Transaction Manager is the mission-

critical workflow engine the bank is leveraging to connect multiple points of check-image capture into one back-end process. This single image-based transaction-processing platform will deliver benefits today, while positioning the bank for the future."

Other Company News

Cash Services Australia purchases Carreker shares 5/14 PRNewswire Carreker announced that Cash Services Australia Pty. Ltd (CSA) has purchased Carreker's 25% stake in the cash outsourcing entity. The 3 banks, Australia & New Zealand Banking Group Ltd, Commonwealth Bank of Australia & Westpac, now each own a 1/3 share. David Pegley, CSA, said, "We are pleased that our long-standing & valuable relationship with Carreker has led us to this juncture. Carreker was instrumental from CSA's conception & they will be an important technology & advisory partner for us as we move forward." Brian Evetts, Carreker, said, "CSA is at the forefront in helping Australian commercial banks manage a challenge that is arising for banks in many countries. That is the rising cost of providing cash services as the reserve banks in many countries reduce their cash services roles or increase their pricing. CSA banks foresaw the implications & moved with us to create a solution that stands as a model for banks in other countries." The banks & Carreker formed CSA in 2001. CSA was 100% owned by Carreker, who provided the technology & consulting services to the banks, who together designed, created & built CSA. As CSA evolved toward fulfilling its charter, the banks became part owners in 2002 & have completed their buyout. CSA utilizes Carreker technology to aggregate & streamline the cash ordering process & logistics for banks. Denny Carreker said, "We are proud to have been a part of CSA's conception & success & we appreciate the banks' role in making the venture a success. We look forward to helping CSA lead the way in deploying solutions for managing down banks' costs & justifying technology investments that give them a competitive advantage. It is a model we believe in, & for which we see similar opportunities across our global client base."

CHIPS extends hours 5/17 PRNewswire CHIPS has expanded its processing hours to more closely align with the business days across the globe. Financial Institutions with large value payment customers across the continents can now offer payment processing with more convenience & a better use of liquidity. The extended day will allow CHIPS operating hours to overlap the business day in Asia. For the first time, on Sunday night, 5/16, CHIPS extended its processing day to 20 hours by opening at 9 pm & remaining open until 5 pm the next day. "The new extended hours for CHIPS provide our clients in Asia with greater control over their business & cash flow as they can now receive their US dollar payments during Asian business hours rather than having to wait until the next day," said Anthony Nappi, Citigroup. In the face of increasing globalization, businesses operate 24 hours a day on every continent. In many cases, the currency of business is the US dollar. Until now, the best option for clearing US dollars in Asia has been through small private clearing arrangements with local banks, which often settle the next day, creating an inefficient use of liquidity. "We have seen an increase in our Asian business recently. Our new extended hours will allow our Asian customers to receive the same benefits of real-time finality & rock solid reliability during their business day, something that our customers in Europe & the Americas enjoy," said John Mohr, CHIPS. CHIPS' extended hours of operation & payment finality are enhancements that maintain CHIPS as the international standard for processing large value payments for more than 34 years. It provides banks everywhere with the ability to process payments on a system with an unsurpassed record of reliability & value-added services.

Hyland Software files for an IPO 5/18 Businesswire Hyland Software announced that it has filed a registration statement with the SEC for a proposed IPO of its common shares. The number of shares to be offered & the price range for the offering have not yet been determined. Citigroup Global Markets Inc. will act as the sole book-running manager. Wachovia Securities, Friedman, Billings, Ramsey & Co., Inc. & KeyBanc Capital Markets, a division of McDonald Investments Inc., will be the co-managing underwriters for the offering. Hyland Software, established in 1991, is a leading provider of rapidly deployable enterprise content management software. Hyland develops OnBase, enterprise-class software that combines integrated document management, business process management & records management in a single application that allows organizations to manage digital content throughout its lifecycle. A registration statement relating to these securities has been filed with the SEC but has not yet become effective. These securities may not be sold nor may offers to buy be accepted prior to the time the registration statement becomes effective.

Visa metric to standardize US B2B spend 5/18 Businesswire Visa unveiled the Commercial Consumption Expenditure (CCE) index, the first financial metric to standardize how business & government spending is tracked within the US. The new index will enable the payment industry, including Visa & its Member financial institutions, to measure & forecast the actual & future penetration of commercial payments products in meeting the market's needs. Created by a team of Visa research & economic experts, CCE draws on government data in methods similar to the PCE index, which annually monitors consumer-related spending. By using the same source of measures from the Bureau of Economic Analysis & the Census Bureau, including the GDP, CCE offers an unbiased & consistent way to monitor business expenditures within the US. "CCE is a thorough & well reasoned metric that points to the opportunity in the commercial payments market for the financial services industry," said David Robertson, *Nilson Report*. "It will provide payment companies with the means to measure their own market share & to develop dependable forecasts of commercial expenditures." Using CCE, Visa estimates that total business & government spending will reach \$14.3 trillion by the end of 2004 -- a more than 13% increase over 2000 spending. When compared with consumer spending, CCE is nearly twice as large as the \$8.2 trillion in annual PCE spending. The new CCE metric identifies a significant business opportunity for financial institutions, especially when considering the relatively low penetration of commercial payment products & services. CCE estimates suggest that the penetration of all payment company-related products will represent only 2% of all business-related payments in 2004, pointing to a significant opportunity to increase usage of B2B payment solutions among US companies. "Since the inception of the consumer payments industry, PCE has been the industry's benchmark for consumer spending penetration," said Wayne Best, Visa. "The potential of the commercial payments segment has been a 'best kept secret' because there has been no standard metric to track business expenditure. Visa's CCE metric comes at a time when it is more important than ever to recognize & track the commercial payment opportunity, as businesses & government agencies transition away from checks to more efficient forms of payment." Visa's financial institutions have not only recognized the opportunity, but have acted on it. The growth rate of Visa's commercial payment volume outpaces that of the market. In 2003, Visa posted a 20.4% increase in commercial payment volume. This supported an ongoing trend that has seen Visa produce a compound annual growth rate of more than 19% since 2000, while the market itself, as defined by CCE, experienced an annual growth rate of 2.5%. "Visa has long recognized the importance & size of the commercial payment market, launching the industry's first card-based business payment solution in 1989," said Michael Dreyer, Visa. "We are proud to be making an industry-defining contribution to frame & measure our Members' success in claiming part of this \$14.3 trillion opportunity." CCE is comprised of 4 key data elements including intermediate inputs,

wholesale & retail purchases, private fixed investment & government spending. Intermediate inputs calculate the annual dollar value of purchases made from one business to another by capturing the money spent to acquire the materials & services used in production, & most business expenses. Wholesale & retail purchases are added to the CCE equation because they are not captured through intermediate inputs as these industries are handling final goods & not intermediate goods. Private fixed investment, or capital business expenditures such as computers & office equipment that are not captured through intermediate inputs or purchases. Government spending split into 2 categories to account for both durable & non-durable goods. Visa will update its CCE forecast once a year, following the release of BEA & Census Bureau data. The next analysis will be published in 7/04 to reflect BEA's 2002 intermediate input values.

Check-21

Many clients still in dark on Check-21 5/19 AB For the banking industry, this is the year Check-21, a long-awaited law, will finally take effect, & gearing up for this change is a top priority at many banks. For a substantial majority of banks' corporate customers, however, the story is different. Many have no idea financial institutions are working to transform the process of settling checks to usher in a new era of faster, cheaper, & more efficient item processing. That lack of awareness presents potential problems & opportunities for banks, several of which say the industry has done a poor job of educating customers about how Check-21 could affect their accounting & payment practices. "I think there hasn't been much public information put out there, & the corporate customer base is certainly unaware," said JoAnn Bourne, Union Bank of California. "We have noticed that public awareness," of Check-21 "is fairly low." Union Bank, which is mostly owned by Mitsubishi Tokyo Financial Group is one of several companies - a group that includes banks & vendors - attempting to educate their customers. These companies say they hope to gain market share from competitors that have been so focused on updating internal systems that they have neglected to communicate with their customers, either about potential problems or eventual savings. "It's absolutely an opportunity for us" to capture new business, said Mary Jane Kelley, 5/3. Customer awareness is not uniform. "Consumers knew nothing about it, & small businesses knew nothing about it," at the end of last year, when 5/3 began talking about Check-21 to customers. "But large businesses knew a fair amount. They knew what it was & how it could impact them." Those observations match the results of a survey Greenwich Associates conducted in March & April of 1,200 companies with annual revenues of between \$1m & \$500m. Only 25% of the small businesses (those with revenues of \$1m to \$10m) & 34% of the midsize ones (revenues of \$10m to \$500m) had even heard of Check-21. Check-21 will take effect in October & is expected to promote the use of check images instead of the original paper items for clearing & settling payments. Banks are eager to shift, because zapping electronic files between banks is faster than transporting the paper, will lower operational costs, & will cut down on float. Bob Neuhaus, Greenwich Associates, said one of the first times some companies observe any tangible change is when they stop receiving cancelled checks from the bank. Instead, the customers will receive image statements with miniature reproductions of the checks, or actual printouts of the files, known as IRDs. Since many companies use cancelled checks in their bookkeeping, 43% of the small companies in the survey that were aware of Check-21, & 39% of the midsize ones, said they were concerned they may have problems proving they had made some payments. "There are a lot of anxieties about this law. The education that banks have been doing so far may not be enough." Steve Hill, Carreker, said part of the reason banks are not doing more is that many of them are still determining their own strategy for implementing Check-21 this year. Carreker has been running a series of workshops for banks this year, explaining to executives from every part of the bank how the law may affect different operations, & helping them develop a companywide strategy. "A lot of the banks have communicated with their customers in a limited fashion," often by speaking directly to the cash managers at their biggest corporate clients, "but we've seen very few across-the-board enterprise-level communications," he said. Bourne said Union Bank has been running Check-21 workshops & has gotten a very strong response from customers clamoring for information about the transition. As these customers learn about how the law will change their practices, they are coming to the bank looking for new banking applications & asking about potential changes in their fees. She expects that interest to yield some opportunities for her bank. "Banks that can figure out how to share the cost savings with their customers will have a huge competitive advantage." Kelley agreed that some potential customers would be interested in being courted by a bank with a comprehensive Check-21 plan if their own banking partner had done a poor job of explaining the potential benefits. "This is an opportunity for us to make sure we are out in front of prospective customers." Neuhaus reported that most of the corporate customers in the Greenwich survey who had been approached with information about Check-21 said their banks had come to them. But 22% of midsize businesses said they had been approached by other banks. "This opens the door to third-party providers." Bourne predicted that some companies, & many consumers, may be taken unaware once banks start to phase in Check-21 applications, especially when people realize they can no longer see their original checks. Supermarkets, which deal with a large number of checks, typically have return-item practices in place that involve handling the actual paper. "What happens if they want to collect on a bounced check & the consumer wants to see the original? The consumer awareness issues, we think, will be huge. Corporate customers really need to think about how they will change their payment processes if they don't have a paper check anymore."

Bankers laud fed's new pdts for electronic check-clearing 5/19 DowJones Bankers have welcomed the Federal Reserve's new electronic check-clearing products, saying the Fed offerings help banks regardless of whether they use the Fed's services. On Wednesday, the Fed announced a new suite of check-clearing products aimed at reducing paper processing. Check-21 will allow banks to make big cutbacks in their paper handling. The Fed's new products include a check-imaging service that will roll out on Oct. 28, & a number of other offerings. Under the new law, banks will be allowed to "truncate" paper checks by substituting electronic images for the real thing during processing. "Since passage of Check-21, community banks have been in a holding pattern," said Camden Fine, ICBA. "Whether community banks obtain Check-21 services from the Federal Reserve or a private-sector provider, all community banks benefit from this announcement. The Federal Reserve's market provides a critical benchmark for service comparison & decisionmaking," Fine said. Check-21 was supported by the Fed & the industry because it will reduce the costs of check-clearing. Both the Fed & the industry have had to adjust to declining check volumes & scale back their processing accordingly. The Fed is in the process of consolidating its check-clearing network & closing some of its regional facilities. The Fed said its new products will allow all banks to take advantage of Check-21's benefits, even banks that aren't big enough to have their own electronic systems in place. "This product suite will enable a financial institution of any size & processing sophistication to take advantage of the benefits enabled by Check-21," said Fred Herr, senior VP of the Atlanta Fed's retail payments office.

ATMs role in Check-21 5/1 CUMagazine ATMs will be a source of cost savings & revenue for CUs. Not since Y2K has the financial industry anticipated an event so keenly as the passage of Check-21. But unlike the turn-of-the century Y2K initiative, Check-21 promises a massive & lasting

impact on how financial institutions conduct business. Check-21 facilitates check truncation by granting a "substitute check" the same legal status as the original document. The substitute check's introduction eliminates a significant barrier to moving beyond a paper-based check-clearing system. No agreement is required between the parties if a paying financial institution elects to present a substitute check to a collecting financial institution in lieu of the original document. This is known as an image replacement document. The new law has the potential to transform how the industry handles check capturing, balancing, clearing, & settlement. In addition to evaluating opportunities to reengineer back-office operations, CUs must consider how Check-21 will affect their members & communicate accordingly. Check-21 represents a significant opportunity for the financial service industry, one that will affect financial institutions' operations, the competitive environment nationwide, & consumers. With little more than 5 months until Check-21 becomes law on 10/28, CU executives are beginning to hear a question reminiscent of the final days of 1999: Are you ready? A better question might be, "How do you get ready?" Many financial institutions are awaiting the Fed's final regulations on the implementation of substitute checks before making strategic decisions. Until then, CUs should examine their processing infrastructure & imaging technology. Because of an annual 2% decline in check volume, financial institutions are experiencing per-item processing cost increases. Check-21 gives financial institutions the ability to enhance the clearing operation & an opportunity to focus on the broader strategic issues of revenue growth, consumer acquisition, & consumer retention. Check-21 dovetails with a pressing need among financial institutions to operate more effectively & efficiently. By transforming the country's check collection system to be more electronic, the new law will help streamline the entire clearing process. Financial institutions could save as much as \$2.1b annually, including \$200m to \$250m in transportation costs, through: Reduced processing costs; Earlier posting & faster collection; The ability to accurately assign float; Fewer trips to collect deposits; The potential to increase ATM transaction volume; Increased branch efficiencies; & Reduced fraud. ATMs will be a major source of cost savings & increased revenue. According to TowerGroup, image-based deposits reduce the cost of deposit processing to 40c-compared with \$1.70 at the teller window. Research from Diebold reveals electronic check truncation is least expensive at the ATM: 27c compared with 28c in the back office & 30c at the teller. What's more, check imaging at the point of service provides the opportunity to speed processing & better manage risk. Despite additional functionality available at many terminals, consumers still use ATMs primarily to withdraw cash. Consumer adoption of ATM envelope deposits has been adversely affected by several factors, first & foremost a lack of confidence. Compounding that perception are many financial institutions' deposit processing & crediting policies. Until now, using the teller line-where deposit cut-off times often are later-meant consumers could access deposited funds faster. The cost of processing envelope deposits & the risk of accepting fraudulent deposits have hindered financial institutions' efforts to improve convenience by migrating consumers to self-service channels for deposit transactions. Research tells us consumers are ready for & interested in depositing cash & checks at the ATM. A Diebold survey revealed 70% of respondents likely would cash a check at an ATM & 56% likely would deposit a check at an ATM if the services were available. Consumers will be more comfortable making ATM deposits when new technologies, such as check image displays & itemized deposit details, are in place. Advanced-function ATMs in the future will have a broader transaction mix, more evenly distributed among inquiries, transfers, check & cash deposits, check cashing, & payments. It estimates the addition of check handling at the ATM will allow the self-service channel to accommodate as much as 85% of all consumer-facing teller activities. We believe consumers will make deposits at the ATM instead of in the teller line once ATMs provide the level of service consumers desire. Displaying the check image & itemizing deposit details for ATM deposits will increase consumer confidence in ATM deposits. We recommend that financial institutions eager to migrate to check imaging at the ATM: Address the operational policies & procedures that may inhibit using ATMs for deposits; Incorporate migration into the role of branch employees; Address any functionality deficiencies; Create member incentives to encourage alternative channel use; Create a physical environment that supports use of alternative channels; & Add electronic facilities, such as ATMs or convenience centers, to adequately cover their market. As a global leader in integrated self-service delivery systems, Diebold is a valuable resource for CUs preparing for Check-21. In fact, many of the technologies financial institutions will use to reap Check-21's benefits have been available through Diebold for years. In 1991, Diebold introduced the Intelligent Depository Module which extended the traditional ATM transaction set to include check cashing, check deposit, & check deposit with cash back. Diebold's IDM technology accepts checks without an envelope, then scans the check's front & back, senses magnetic ink, optically reads magnetic ink character recognition, & prints host-defined data on the check. In addition to developing its own technologies, Diebold has entered into a strategic relationship with Alogent, a best-in-class check imaging software provider. Alogent has proven global success in providing payment processing solutions that enable financial institutions to reduce costs, accelerate timelines, & improve quality in check processing. Diebold offers ImageWay Xpedited by Alogent, an open, end-to-end deposit automation solution. ImageWay software makes it possible for financial institutions to capture check images & transaction data at the ATM & seamlessly process & route them through the entire processing system. ImageWay ATM software can be used with Diebold's Opteva advanced function ATMs, & ix Series terminals. Diebold ATMs & ImageWay software offer financial institutions a deposit-automation & check-image transfer solution that can generate savings, support intelligent float assignment, reduce fraud from empty envelopes, & further increase consumer reliance on self-service delivery channels. Last year, US consumers wrote 40b checks, many of which crisscrossed the country in planes & trucks on their way to reconciliation. Check-21 is intended to reduce costs & delays from that paper processing & transportation system. Individual financial institutions carefully must prepare for this new legislation to be ready for the changes & the opportunities it provides. As the deadline for Check-21 compliance approaches, financial institutions can count on Diebold for superior self-service solutions & decision support via: ATM channel optimization recommendations; ATM network expansion recommendations; Consumer research on channel preferences; Database integration projects (merging transaction & household files); ATM channel profitability analysis; Peer analysis; Best practices; & Strategic planning support.

Check-21 will hurt small businesses & the police 5/14 AB To the Editor: As a law enforcement officer assigned to investigate frauds, I think Check-21 will be a drastic setback to investigations & investigators (*Check-21's Unexamined Side Effect? 4/27*). We rely on many aspects of forensics to be able to make a case against a defendant. A fingerprint does not lie about an identity. Many banks & businesses do not have quality surveillance video in place to enable an investigator to make a positive ID of a suspect, whereas forensic evidence can't be beat by any defense. Even if they do have a good surveillance video in place, it takes much more time to identify a suspect, if an ID is ever made. Check-21 is going to allow check fraud criminals to complete their crime without being the least bit worried of getting arrested. I feel that even if Check-21 will allow the banks almost immediate confirmation that a check is bad or something is wrong with it, Check-21 does not think about the "little guy" (small businesses) who might take a loss on a check. Check-21 will save financial institutions tons of money on storage, mailing & other aspects of doing business, but it will most definitely be the downfall of smaller & midsize businesses that cannot afford to take the loss - not to mention the law enforcement officer's ability to do his job & arrest the bad guy. One banker at a seminar I attended said "law enforcement will just have to find another way to do what they are paid to do." Unfortunately, this person did not have any suggestions to help law enforcement when & if check

imaging is implemented in our area. The fact of the matter is, nothing assists law enforcement in doing their jobs as much as the availability of forensic evidence. Brent Yarbrough, Detective, Lawton OK.

To some users' dismay, banks giving canceled checks the bounce 5/17 *PalmBeachPost* Malka Kornblatt thinks of her collection of canceled checks as a sort of scrapbook. The 71-year-old Boca Raton retiree has boxes full of old checks dating back decades. Occasionally, she opens them & reminisces. Kornblatt isn't pleased that the canceled check - a banking tradition as venerable as the passbook savings account - is headed toward extinction. "It's going to feel like a terrible loss. When you reopen those boxes from way back when, you relive your whole life. Now they're going to give you back the crummy photocopies. That's not the same thing." Banks are abandoning the decades-old tradition of mailing canceled checks back to customers. As electronic payments, automatic withdrawals & debit-card transactions increasingly replace paper checks, banks want to streamline the cumbersome - & costly - process of shipping checks throughout the country, then returning them to customers. Many financial institutions have switched to "check imaging," a process of electronically storing checks. Some banks send customers one-page photocopies rather than the actual checks; others provide copies of canceled checks only when customers ask for them. Bank of America, the second-largest bank in Palm Beach County & the largest in Florida, is about to become the latest financial institution to charge customers for returning canceled checks. Starting next month, the bank will bill customers \$3 a month to include canceled checks with their statements, although the charge won't apply to seniors' accounts. For customers who don't want to fill shoeboxes with checks, BofA will store the documents electronically for 7 years. Account-holders will be able to see their canceled checks for free - by going online or by visiting a branch. Wachovia, Palm Beach County's largest financial institution, charges \$2 a month to return canceled checks to some customers, although it makes images of checks available online & at its branches. Bank of America & Wachovia are among the thousands of institutions switching to electronic storage of checks. Less than half of bank customers still receive canceled checks, according to the American Bankers Association, an industry trade group. Bankers say consumers would rather not worry about where to stash old checks & whether to shred them before throwing them in the trash. "We've listened to our customers, & what we're hearing is they want something that's simpler, so they don't have to store them," BofA's Harvey Radin said. "They don't have to worry about disposing of them. It's more convenient." Not to mention the lower costs banks enjoy from handling less paper. The nation's 10,000 banks would save an estimated \$2b a year if check processing went entirely electronic. While banks have to invest in the technology to produce electronic images of checks, employees spend less time sorting & mailing checks, said Randy Ezell, Enterprise National Bank, North Palm Beach. "There's a considerable cost savings." Consumers like Kornblatt lament the change. She closed her account at BankAtlantic after it stopped returning canceled checks & switched to Wachovia, which still returns checks. Russell Greene, Grand Bank & Trust of West Palm Beach, heard a similar gripe about check imaging. "My wife said the same thing: 'I want my checks back'" But she quickly grew accustomed to not receiving canceled checks, Greene said, particularly when she saw that Grand Bank sent copies. Canceled-check policies vary. SunTrust, for example, returns canceled checks for free if customers want them but has found that most customers don't, said Lisa Whittaker, Suntrust. Gold Coast FCU of West Palm Beach hasn't returned a canceled check since it began offering checking accounts in the 1970s, CEO Rob Delaney said. The CU decided that money spent on returning checks would be better used giving members a sweeter deal on rates. Congress has made it easier for banks to rid themselves of paper checks, which Americans continue to write at a pace of 40b a year. When Check-21 takes effect in October, banks will be able to clear checks electronically rather than flying them around the country, as they do now. "It brings check processing from the Pony Express era into the computer age," said John Hall, ABA. Check-21 lets banks scan checks, creating electronic "substitute checks" that serve as legal documents. Once the check is captured electronically, banks keep the originals for a few days or weeks, then shred them. The substitute checks are e-mailed or posted to an electronic archive to be cleared. Bankers say the more efficient process will lower the chances of check fraud. But Hall said the demise of the canceled check isn't imminent. It could be a decade before canceled checks disappear altogether.

Banking & Payments

Printers' divergent responses to check drop 5/14 *AB* When the industry's 2 largest check-printing firms reported earnings last month, there were several striking similarities. But a peek under the hoods of Deluxe & John Harland Co. reveals that 2 companies once quite alike are charting very different courses. They dominate the \$1.8b US market for check-printing services for financial institutions, but that sector is facing a long, slow decline, as more & more consumers embrace alternatives like online bill payment & credit & debit cards. Harland has expanded into the electronic processing market, which offers much more potential for long-term growth. Deluxe remains firmly entrenched in the world of paper & printing. The 2 companies, along with Clarke-American, have a share of 95% of the US check printing market, but last month Harland & Deluxe reported lower IQ earnings in the face of declining order volumes & increasing price competition. They raised their earnings outlooks, while they continue to close printing plants & consolidate operations to cut costs. Harland decided in 1999 to diversify into technology, primarily to serve small & midsize banks & CUs. Timothy Tuff, CEO, said the goal was to differentiate Harland from its competitors & enhance its growth prospects. Since then it has completed 10 acquisitions, mostly for technology companies. Revenue from its software & services unit, Harland Financial Solutions, grew from \$27.5m in 1999 to \$176.8m, or 23% of the parent's total, last year. Harland estimates the unit will generate \$200m of revenue this year. Another unit, Scantron Corp, provides academic & professional testing technology. Last year it generated \$113.2m of revenue, or 14% of the parent's total. Deluxe spun off its technology operations in 2000 in order to focus on printed products. It has made some efforts to diversify into other paper & printing ventures, but checks remain its primary business. The technology operations became the payment processing company eFunds. One of Harland's early moves to diversify into technology was the 8/00 acquisition of Concentrex, itself the product of several vendor mergers. One of those vendors was Ultradata, a core processing outsourcer for CUs that remains a component of Harland's software operations. Concentrex was combined with Harland's other software businesses to become Harland Financial Solutions. Harland is still snapping up companies that offer products like branch automation software, hardware & software systems for community banks, & core processing. Last month it purchased assets from Greatland Corp, that included a library of electronic mortgage documents. As the demand for paper checks declines, the 2 companies are paring down their printing capabilities. Harland announced a reorganization plan in September that calls for closing 5 of its 14 printing plants & cutting the printed products unit's overhead. "Our plant consolidation program continues on track to be completed this year," but falling order volumes & increasing pricing pressures will hold down the unit's sales & profits, Deluxe is cutting its operations. It has reduced its work force by 6.5% this year, & it is closing 3 printing plants in IH 2004. Last month it announced plans to close a 4th, in Anniston AL, this year. As its check-printing operations decline, Deluxe executives are looking for possible acquisitions. It has identified the small-business printing market - including business forms, stationery, business cards, even advertising novelties such as refrigerator magnets - as an area of potential growth. "These small businesses return to us for repeat business," Lawrence Mosner, Deluxe said. Check sales to small businesses have remained steady while other segments have declined. "The small-business sector is self-propagating, & Deluxe business services is pursuing it." It is trying to wring more profit

out of reorders by promoting customized designs featuring themes such as Nascar or Winnie the Pooh. Online banking & other payment options are growing at the expense of checks, but "checks will remain the preferred method of payment for noncash transactions for some time to come." Jim Eckenrode, TowerGroup, agreed that checks will not disappear overnight. "We don't see check volumes disappearing in the next 5 years. It's a slow death." Still, it's clear that the decline in checks is hurting both companies. Deluxe's IQ revenue fell 3% from a year earlier, to \$308.8m. Net income fell 5%, to \$47.7m. Harland's sales fell 1%, to \$190.6m. Net income fell 1%, to \$13.1m. Profits from Harland Financial Solutions fell 7%, to \$4m, even though sales rose 12%, to \$44.8m. Harland blamed the profit drop on slower sales of compliance software, though the unit got a boost last year from its acquisition of Premier Systems, a core processing service bureau. Despite the decline in check volume, both companies have raised their profit outlooks for this year. Harland projected full-year earnings to rise by 3c to \$1.94 to \$1.99/share, largely on the prospects for stronger software sales in IIH. In its IQ earnings report, Deluxe upped its full-year earnings outlook by 5c/share, to \$3.55. Some of the increase can be attributed to stock repurchases made through a program authorized in August; IQ it earned 94c a share & 50m shares outstanding, but a year earlier it earned 83c a share & had 56.7m shares outstanding. Deluxe said its higher projections did not depend on future buybacks, though it has repurchased only 1.9m of the 10m shares its board has authorized. Deluxe executives pointed to improved cashflow, & projected cash from operating activities to exceed \$225m, compared with \$181.5m last year. Deluxe will try to hold up its profits by winning higher-margin orders & by increasing its share of the check-printing market. Aaron McPherson, Financial Insights, said Deluxe's business-oriented strategy might help. "We're expecting much slower declines in business checks, because that's a much more complicated business process. Maybe focusing on that segment would be good business for them. Deluxe will have to diversify if it wants to continue to grow." Eckenrode said Harland's strategy seems to offer more potential. "They've been able to carry the Harland name beyond checks to provide some good services to banks in their target markets. I think Harland is on the right path."

Banks need payment volume to retain revenues *TreasuryStrategies 5/17* As e-payments eat into the share held by paper payments, banks have to react on behalf of the entire institution, & offset lost revenues by identifying new businesses such as cash forecasting, liquidity or risk management, according to Treasury Strategies. Banks need to grow their payment volume by 6% a year to keep their 'business as usual' revenues constant as declining paper volumes cause a drop in float & revenue from checking services. Of the 24 banks surveyed in the report, *How Much Smoke, How Much Fire? Bank Adoption of New Payment Types*, 35% reckoned their institution would be a leader in e-payments, while 26% did not expect to become a leader. 40% of the banks had multiple product or market areas that are responsible for payments initiatives, with a similar number having appointed a task force with representation from multiple areas. 5% of responding banks had given one individual full responsibility for consumer payments, & a different individual, responsibility for commercial payments. Interestingly, 75% of the banks considered themselves "well-positioned" for emerging payments solutions, with just 12% indicating that they were "very" well positioned to use e-payment solutions. Banks are uncertain how e-payments will impact their positioning, however, Treasury Strategies notes, with new payment structures triggering challenges in new fraud types & the potential loss of revenues. 40% of responding banks had Web & telephone payments projects under way, with 27% developing such payments. 60% believe e-payments will increase their market share, with 20% confident of increasing their profitability. Bottom line, while larger banks are investing in & delivering e-payments, smaller banks need to devise & implement their strategy.

Credit card usage *RestaurantBusiness 5/1* Back in 1949, the idea of the credit card was wholly unknown to the American consumer. One year later, the first card made its debut. It was, coincidentally enough, for use only in restaurants. & what a legacy hath it wrought. Not only is credit-card use ubiquitous in white-tablecloth establishments, but more lower-ticket places are accepting plastic all the time: According to the National Restaurant Association's 1998 Tableservice Operator Survey, operators who reported the greatest increase in credit-card activity in their places (8.3%) had check averages of \$8-\$14.99 (though all segments reported increases.) One major card company recently revealed that 26% of consumers use credit cards to pay for fast-food meals, & that the average user rings up \$500 in quickservice tabs every year. McDonald's announced a goal of increasing the number of units that accept plastic to 6,000. There's no doubt that Americans like to use their plastic-and, increasingly, use it in restaurants-but amid all the swiping, the question emerges: What does the future hold? While consumers might be charging more frequently, is there fallout from that trend? Combing through the cubic tons of statistics on consumer credit-card behavior, a number of interesting trends emerge-some rather disturbing-that could well affect the fortunes of restaurants in the future. The good news: At a time when quickservice restaurants are increasingly embracing plastic payment methods, the age group that contains their heaviest users is getting more credit cards-presumably opening the ground for increased sales (a study by a major credit lender determined that quickservice tabs put on the plastic are 20%-30% higher than those paid for in cash). According to a 2002 study by Nellie Mae, a student lender, the number of college kids carrying credit cards jumped 24% from 1998 to 2001. The group estimates that over half of college freshmen carry credit cards, & by sophomore year that number jumps to 92%. There's evidence that credit cards aren't just being used to pay the whole meal tab, as happens 80% of the time when the bill is over \$25, & as much as 1/3 of the time when the tab is between \$8-\$15 (NRA). A 2003 survey by a consumer-credit counseling firm revealed that when a party splits a check, each member will plunk down his own credit card instead of cash 21% of the time. Yet there are manifold indications that all of the charging activity, while benefiting restaurants near-term, could ultimately be a very bad thing. For restaurants & consumers alike, it all comes down to a 4-letter word: debt. The data indicate that many consumers are using plastic not as a convenient payment method, but as an unsecured financing strategy. Some observers have warned that as household credit-card debt increases, it could eventually put a stranglehold on discretionary spending, as consumers use income to pay off rising card balances. There are signs of this happening. Young people might be avid chargers, but they admit that they're worried about the charges they're racking up. A study by the Consumer Federation of America indicated that 49% of adults aged 18-34 are concerned about meeting their monthly debt payments, compared to 39% of the population as a whole. A hefty number of people are falling behind right now. According to the Fed, only 61% of credit-card holders managed to pay their monthly debts in full in 2003. The Fed estimates that a little more than 44% of American families service some sort of credit-card debt every month. Do the numbers mean that debt will eventually strangle consumers to the point that they won't eat out? Likely not. But these clouds on the horizon suggest that charging sprees could eventually be the reason for their own curtailment. A 2002 study of credit-card companies' direct-mail solicitation of new consumers (which was on the rise), found that customers who actually wanted those cards dropped by well over 1/2 from 1.3% in 1997 to 5% in 2002. That's a charge, all right-in the opposite direction.

Average Check Size	
Less than \$8	\$53%

\$8 to \$14.99	83%
\$15 to \$24.99	77%
\$25 or more	61%
National restaurant association, 1998 tableservice operator survey	

Pilots ferry millions in cashed checks nightly *5/14 BaltimoreSun* While you sleep, your personal checks are buzzed across the country by an army of private cargo pilots. Thomas Lennon, who died Friday when his turboprop crashed into an Anne Arundel County neighborhood, was hauling checks on 25-minute flights back & forth from Baltimore to Philadelphia. Lennon, one of 11 cargo pilots working for Atlanta-based Epps Aviation, was on the 6th & final leg that was to end at Baltimore-Washington Airport. The Federal Reserve, which contracted the plane, uses specialized, private air services to move about 15m checks a night on solitary, overnight flights, said Pierce Nelson. The checks move from one Fed processing facility to another. Epps Aviation, 1 of 5 air operations in the country that transport paper cargo for banks, flies 8 routes a night in the Northeast. "I would liken it to the armored cars that carry coins & bills around to banks," said John Mazor, Air Line Pilots Association. "Someone's got to do it. It's not a very big industry, but it's a necessary component." The Mitsubishi MU-2 was under contract with FRB Atlanta & was carrying 195,000 checks - written for about \$115m - along with other paperwork. Epps transports about 15% of the \$20b worth of checks flown by the Federal Reserve on an average weeknight. In an age when you can pay your phone bill on the Internet, personal checks still have to be processed by the bank they came from. "It's basically like moving any other contract or printed document that you need an original of," said Epps' Rebecca Lorber. "It's about moving original documents quickly & getting them processed from one place to another." Fed officials will inspect the checks that went down in the crash to determine if they're usable. If not, the agency will trace them using information collected from the banks.

E-Billing & E-Procurement

Customers prefer paying multiple e-bills on one site *Finextra 5/19* US online customers that are able to pay multiple bills from a single Web site are the most satisfied with their Internet banking services, according to a survey by Marketing Workshop, Harris Interactive & Checkfree. According to the survey of 2000 US consumers, firms that offered "consolidated" electronic bill payment services from one Web site were viewed more favourably by customers when compared to the satisfaction levels of consumers that have to pay bills one at a time at different "biller direct" sites. More than 50% of those who paid multiple bills from a single site indicated that they were, as a result, less likely to switch to another financial institution. The survey found that consolidated site users believe they are better able to manage & organise their finances. Time saving was cited by 85% of respondents as the primary reason for receiving & paying e-bills at one site, along with convenience (83%) & improved organisation (75%), while 78% said the e-mail notifications reminding them to pay online - which helps protect a consumer's credit score - was one of the main benefits of the service. Customer satisfaction was shown to be even stronger among consumers who were accessing live, data-fed e-bills sent by the biller to the financial site to view & pay, with 67% rating themselves as "very satisfied" paying bills via the consolidated method - a 23% increase over those who pay bills at biller direct sites. 62% these users were "satisfied" with their online banking services - a 15% increase over those who do not use the consolidated service at all. The survey shows that consolidated users are "heavier users" of general banking services, with a higher % having current, savings & money market accounts, & car, personal/student & home equity loans. Commenting on the results, Steve Olsen, Checkfree, says: "As mainstream consumers continue to adopt personal electronic commerce, the consolidated model of electronic billing & payment is proving to be a winner for consumers, billers & financial institutions. "Consumers who use these services report a more satisfying experience overall when they can receive electronic bills & make payments to anyone from one site."

E-Commerce & M-Commerce

Small businesses rapidly moving online *5/19 Businesswire* 70% of small businesses either have or will have an online presence by the end of 2004, according to a recent Yahoo Small Business survey conducted by Harris Interactive. By comparison, in 10/02, only 35% of small businesses had developed their own web site, according to a Small Business Administration report*. The Yahoo Small Business survey, released today in conjunction with National Small Business Week, provides results of a national survey of 1,000 US small-business owners & measured business-growth trends faced by owners of businesses with less than 100 employees. "Clearly, small businesses realize the importance of establishing an online presence & leveraging the Internet as a way to reach new customers," said Rich Riley, VP & general manager, Yahoo Small Business. "Yahoo helps small businesses take advantage of this opportunity by offering a comprehensive suite of services including web hosting, business email, e-commerce functionality & online marketing." The survey found that 35% of small business owners feel that having a web site is key to expanding their business, compared to 19% of owners who believe hiring employees is important for growth. - When asked how beneficial each of the following activities are (or would be) for the growth of their business, respondents offered the following, in order of importance: - Having or establishing an online presence (35%) - Having or obtaining dedicated business email (30%) - Increase online advertising effort (30%) - Hiring more employees (19%) - Most respondents (94%) feel that small businesses have a "moderate" to "very large" impact on the country's economic growth. While the majority of those who responded plan to see an increase in sales, more online businesses expect to experience growth than those businesses that are not currently online. - Approximately two-thirds of total respondents predicted their annual revenue will rise in 2004. - Of these respondents, 75% currently have an online presence.

Other

Taking too little time off is workers' biggest vacation mistake *5/13 OfficeTeam* Employees planning personal travel this summer may want to tack on a few extra days, a survey suggests. 43% of workers polled said the biggest mistake they made with their last vacation was taking insufficient time off. The survey was developed by OfficeTeam. It was conducted by an independent research firm & includes responses from 571 men & women, all 18 years of age or older & employed. Respondents were asked, "Which one of the following was the biggest mistake you made when you took your last vacation from work?" Didn't take enough time off 43%; Couldn't relax or get your mind off work 17%; Checked in with the office too much 8%; Didn't prepare or organize your work well prior to leaving 7%; Something else/none of the above 23%; Don't know/no answer 2%. "Employees fearful of falling behind on projects or not seeming like team players often put off vacations or limit breaks to long weekends," said Diane Domeyer, OfficeTeam. "Lean staffing levels in recent years have left many professionals with increased pressure at work, but this makes the need to recharge more vital than ever." Domeyer notes that collaborating with coworkers can help staff members rest

easy while away. "Inform colleagues of the status of key projects before you leave & designate a point person in your absence. Consider which tasks a temporary or project professional could assume."

Multitasking has its limits *ScienceCentral 5/19* Scientists studying our brains may have found why mistakes can happen when we try to do too many things at one time. They have found we need a little time to process everything we do. The next time you're driving, changing the radio station, talking on your cell phone, reading a road sign, & keeping an eye out for rogue bicyclists, you might want to try paying attention to one task at a time. "Attentional blink" is term psychologists use to describe our ability to be aware of an event or object, such as a sign on the road or someone's face, even if we are paying attention to another visual event. But what goes on in the brain during the attentional blink? Rene Marois, a psychologist at Vanderbilt University, wanted to find out. Marois & his team used functional magnetic resonance imaging (fMRI) to monitor the brains of 20 participants while they were presented with a barrage of visual information. The researchers mixed in an image of a face & an intact scene among a bunch of other scrambled indoor & outdoor scenes. The intact scene was shown about a half a second after the image of the face. Marois found that the participants could recall only some of what they saw. Specifically, they often missed the intact scene, as if they "blinked" during it, because they were paying attention to the face, which they were told to look for. Furthermore, according to the fMRI results, if a participant reported having seen the intact scene, the part of the brain called the frontal cortex (associated with motor functions & complex thinking) was activated. But a part of the visual cortex called the inferior temporal cortex was activated even when a participant did not report having seen the intact scene. In other words, you can see something, but not necessarily process it. Marois says his study reveals that "whenever we pay attention to an object or a visual event we actually need to dwell on that object or event for a few hundred milliseconds, almost up to a second or half a second, & that while our brain is busy processing one visual event then we may not be able to process other visual events that are going on in the visual world." So the human brain has limitations, especially in a world where we're constantly bombarded with stimuli. "Even though our brain is often very much vaunted for its incredible processing capacity, that it's a very sophisticated parallel processing computer, well, that's not the whole story," says Marois. "Our brain has very humbling limitations. So even though there's evidence that our brain can process a lot of information parallel, there are these bottlenecks of information processing that limit what we actually become aware of & can act upon. It's a sobering experience to know about...for instance, when we're driving, [if] there's something that attracts our attention in the visual field, then we're less likely to detect something else going on in that visual field within about half a second after that. When you're driving, this can have dire consequences." So for all of you multi-taskers out there, Marois has a warning: "Unless you're very practiced at this multi-tasking...you're going to suffer. Whenever you engage in 2 tasks that require attention, then it means you have less attention available for [the] other task."

On this day:

- May 14 1796, Edward Jenner vaccinates an 8-year-old boy against smallpox.
- May 15 1911, US Supreme Court rules that Standard Oil is in violation of the Sherman Anti-Trust Act.
- May 16 1866, the *nickel* is introduced in the US, replacing a coin known as the *half dime*.
- May 17 1954, Supreme Court issues *Brown v Board of Education of Topeka* decision.
- May 18 1898, Supreme Court issues *Plessy v Ferguson* decision.
1908, Congress mandates *In God We Trust* be placed on certain US coins.
- May 19 1588, Spanish Armada sets sail from Lisbon.
- May 20 1873, Levi-Strauss patents jeans with copper rivets.
