

Financial Services Clipsheet
BAI Retail Delivery conference news & ordinary clipsheet stragglers
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Company News

Digital Check Check 21-compliant API 11/16 Businesswire Digital Check Corp released a Check 21 compliant API v8 for all models of their TellerScan compact, desktop check scanners. Check image interchange formats & supporting file formats for Check 21 purposes have been defined by ANSI X9. The image formats are part of X9.90 while the supporting electronic cashletter is X9.37. Contained within the X9.37 standard are a set of fields designed to tell the receiving organization whether each item is a quality image or not. FSTC Image Quality & Usability Assurance Initiative has designed 16 metrics to describe exactly what is a quality image, & these will be incorporated into the ANSI X9.37 standard. 'Our API is designed to ensure the capture of a fully compliant Check 21 image on the first pass at the point of check presentment,' said John Gainer, Digital Check. 'All Digital Check's TellerScans offer a unique item-by-item image quality assurance as we have proven that this offers the fastest & most reliable method to guarantee the quality of the image as it passes into the check clearing process. Other scanners offer a post-process image quality assurance which is a slower & less productive method. All our TellerScans have a common API, which makes for exceptionally easy installation & gives the ability to mix-and-match so that you have the right scanner for each job within an installation. With the new API, we have gone a step further than just complying with the FSTC check image quality assurances. We have added tests for Endorsements, CAR & LAR - these tests ascertain whether valid looking data is present in the requisite areas of the check. These steps save time & prevent non-processable checks from entering the clearing system. If the signature is missing from a check, it can be removed from the deposit at the Teller Window, rather than at a later & more costly point in the clearing process. With Digital Check's Best Read MICR & Best Read Image, users can be assured of the best quality & most accurately read images possible. The new API is part of Digital Check's ongoing commitment to manufacturing the highest quality compact scanners. When it comes to image quality our TellerScans deliver.'

[Digital Check TellerScan](#) image scanners are fully compliant with [Check 21 Pass™](#) processing and are available from [Aqubanc, LLC](#).

Parascript's SignatureOnline 11/16 PRNewswire Parascript announced SignatureOnline, a product in its fraud prevention software suite that enables organizations to detect counterfeit signatures at the point of transaction, helping to hamper fraud before the transaction is processed, resulting in reduced fraud losses & improved customer satisfaction. By tracing the movement of a pen on a data input device, SignatureOnline recognizes differences in legitimate signing style or behavior, enabling financial & retail institutions to verify signatures & detect fraud in real-time for workflow automation, document management, electronic transactions & other applications. 'Given the growing incidence of check & identity fraud & the lasting, negative impact that it can have on companies & individuals, we saw an opportunity for Parascript's advanced recognition technology to address this mounting problem,' said Mike Fenton, Parascript. 'SignatureOnline is our 4th product in a suite of fraud detection solutions that uses multiple, proven levels of advanced technologies & the industry's highest accuracy & reliability to provide a frontline defense against fraud.' The software from Parascript uses signature trajectory, which combines the analysis of spatial characteristics, behavioral biometrics & other characteristics of a handwritten signature to verify personal ID for check cashing & POS transactions. SignatureOnline employs the following to offer the most comprehensive & advanced fraud detection available: Multiple Verifiers - SignatureOnline applies a powerful combination of multiple proprietary verifiers. These verifiers analyze the shape, speed, stroke, pen pressure & timing received in the act of signing. Each verifier produces a specific result. The final confidence value is based on the combination of results to ensure the greatest verification accuracy. Analysis of Behavioral Biometrics - SignatureOnline analyzes handwritten signatures & detects random & skilled forgery through behavioral biometrics, which tracks deviations from the authentic movement pattern to ensure that forgery is detected even when the perpetrator has a copy of the authentic signature. Multiple Reference Signatures - SignatureOnline compares signatures against multiple reference signatures available, for added protection. This reduces the number of authentic signatures that were wrongly rejected by taking into consideration random deviations inherent to human handwriting. Confidence Value - SignatureOnline issues an overall confidence value that indicates the certainty that the signature presented for verification & the corresponding reference signature on file match. This mechanism gives organizations the ability to execute different levels of interpretation to meet specific application requirements. Universal Algorithms of Signature Analysis - SignatureOnline's ease of implementation & user-friendly interface helps system integrators accelerate application deployment. The software is ready to use & does not require additional training. SignatureOnline is language-independent & easily integrates into any solution that requires an engine for online signature verification. 'We saw a critical need in the financial & retail markets for a seamless, signature verification product that was sophisticated & reliable,' said Yuri Prizemin, Parascript. 'SignatureOnline easily integrates into existing business applications & provides the intelligence to best address online fraud detection for banks, retail stores & their customers.' SignatureOnline is built on Parascript's flagship Total Recognition technology - the most complete technology that recognizes cursive, handprint & machine print with the industry's highest read rates & accuracy.

AFS distributed check capture 11/15 AFS Advanced Financial Solutions announced the release of the AFS Direct application suite. AFS Direct provides for item-image capture at the source merchant sites, lockboxes, branches & ATMs. AFS Direct applications provide distributed image capture & a payment processing infrastructure to accommodate remote capture at every point of presentment - at the branch & off-premises - including commercial & merchant locations. AFS Direct applications can integrate multiple capture locations, & leverage different capture devices to remove paper from the process, lowering the cost of payment processing with accelerated check clearing & optimized cashflow. 'In today's competitive market financial institutions must offer their customers the most convenient & cost effective corporate banking solutions & services,' said Gary Nelson, AFS. 'AFS Direct suite of distributed image capture solutions provides financial institutions with the platform to attract new corporate accounts & strengthen highly-valued existing relationships.' The AFS Direct distributed capture suite includes: Direct Merchant - brings the convenience & cost savings of distributed image capture directly to a financial institution's corporate & merchant clients. With a low-speed image capture device & secure Internet access, commercial customers can image capture check payments at their business location & electronically deliver the images to their bank for processing. Direct Branch - provides financial institutions with the capability to image capture checks via a scanning device at the back counter, extending back room capture into the branch. Batches of check images are scanned on a back-counter scanner at regular intervals. Direct Teller - provides your institution with the capability to image-capture checks at the teller station. AFS Direct Teller efficiently combines traditional online teller transaction processing with check image capture & transaction balancing. Direct ATM - provides image

capture of check deposit transactions at ATMs. AFS Direct ATM works with any image-based ATM & enables a customer to deposit a check directly into the ATM without an envelope. The check image is displayed on screen, allowing for the verification of the deposit amount. Customers have the choice of how & when to carry out a check deposit transaction with the reassurance of instant proof of deposit. Direct Correspondent - leverages Direct Branch & Direct Teller, & provides a secure, locally centralized proof capability. This enhancement gives the outsourcing entity the ability to allow their correspondent financial institutions to send only balanced work, & yet leaves the option to outsource data perfection & balancing. Correspondent institutions gain incomparable speed & reduce or eliminate courier costs, because there is no longer a need to forward paper checks.

AirNet IIIQ 11/15 PR Newswire AirNet reported total net revenues rose 15.6% to \$43.9m for the 3 months ended 9/30/04 from \$38.0m for the same period last year. This increase was attributable to strong growth in Express Services & Passenger Charter Services revenues. Bank Services revenues for IIIQ 2004 were slightly above the same period last year due to higher revenues from fuel surcharges. The Company had a net loss of \$30.2m, or \$2.99/share, for IIIQ 2004 compared to net income of \$1.0m, or \$0.10/share, for the same period last year. The IIIQ net loss included non-cash impairment charges of \$47.0m (\$31.0m after-tax) related to its cargo business. These impairment charges, which impacted the company's cargo aircraft assets by \$43.0m & goodwill by \$4.0m, were caused by changing conditions in Bank Services. Joe Biggerstaff commented, 'In IIIQ 2004 we achieved strong revenue growth in Express Services & Passenger Charter Services. This reflects further implementation of our strategy to diversify the Company's business & utilize established core competencies to serve new markets. Our team is focused on leveraging AirNet's capabilities to adapt to current challenges while shaping the Company's future. We remain committed to providing best-in-class service to our Bank, Express & Passenger Charter customers. The significant non-cash impairment charges resulted in a net loss for the quarter. In our operations, aircraft fuel costs represented the largest increase in our IIIQ operating expenses compared to a year ago. These fuel costs for our cargo fleet, net of fuel surcharges, were \$0.7m higher than for IIIQ 2003. AirNet is seeking to recover these increased fuel costs through adjustments to its fuel surcharge program.' Bank Services revenues were \$26.6m for IIIQ 2004 versus \$26.0m for the same period a year ago. Bank weekday revenues declined compared to IIIQ 2003, principally due to reductions in total shipments & the number of pounds per shipment. Fuel surcharges were \$1.7m for IIIQ 2004 compared to \$0.8m the prior year. Express Services revenues rose to a record \$12.8m for the three months ended September 30, 2004 from \$9.3m for the same period a year ago. The Company continued to achieve solid growth in its key Express Services markets, which include Life Sciences, Entertainment & Aerospace. Express shipment volume using the Company's cargo airline improved slightly for IIIQ 2004 compared to the prior year. Express Services rose to 29.2% of total net revenues for IIIQ 2004 from 24.4% for IIIQ 2003. Passenger Charter Services revenues increased 82.8% to a record \$4.3m for IIIQ 2004 versus \$2.3m for the same period last year. There were fourteen aircraft dedicated to Passenger Charter Services at September 30, 2004 compared to seven aircraft on the same date last year. The number of hours flown increased significantly during IIIQ 2004 compared to the prior year. Passenger Charter Services' revenues represented 9.7% of the Company's total net revenues for IIIQ 2004 compared to 6.1% a year ago. AirNet's total costs & expenses were \$88.9m, including \$47.0m for the non-cash impairment charges, for IIIQ 2004 versus \$35.8m for the same period in 2003. Excluding the non-cash impairment charges, the most significant increases for IIIQ 2004 compared to a year ago included aircraft fuel (\$2.5m), which is partially recovered through the Company's fuel surcharge program, followed by contracted air costs (\$1.1m), depreciation (\$1.1m), & ground courier costs (\$1.0m). Substantial growth in Express Services & Passenger Charter Services is reflected in higher levels of air & ground activity & associated costs for IIIQ 2004 compared to the same period last year. Express Services customers are currently more costly to serve than the Company's Bank Services customers due to a higher % of unscheduled pickup & delivery services over more geographically dispersed locations. Total net revenues increased 13.3% to \$126.5m for the first nine months of 2004 compared with \$111.7m for the same period last year. Bank Services revenues improved to \$78.7m for the 2004 year-to-date period, benefiting from higher fuel surcharges & Bank Weekend revenues. Bank weekday revenues declined for the nine months ended 9/30/04 compared to a year ago due to a decline in the number of pounds per shipment. Express Services revenues rose 32.8% to \$35.7m for the nine months ended 9/30/04 from \$26.9m for the same period in 2003. Shipments on commercial airlines & point-to-point surface shipments increased 36% & 38% during the first 9 months of 2004 compared to 2003. These shipments generally incur higher courier costs compared to shipments on the Company's airline. Passenger Charter Services revenues more than doubled to \$11.5m for the first nine months of 2004 compared with \$5.6m for the same period a year ago. Total expenses were \$170.4m for the 9 months ended 9/30/04, including \$47.0m of non-cash impairment charges, compared with \$107.0m for the prior year. This increase was principally due to higher fuel costs (\$4.3m), ground courier costs (\$3.6m), depreciation (\$2.5m) & contracted air costs (\$2.1m). A substantial portion of these increases are directly related to growth in Express Services & Passenger Charter Services, which represented 28.2% & 9.1% of total net revenues for the 9 months ended 9/30/04. Capital expenditures were \$43.7m for the first nine months of 2004 compared to \$13.4m for the same period last year. Most of these capital expenditures were for the purchase of four Learjet 60's, which are dedicated to Passenger Charter Services, & for major periodic aircraft inspections, major engine overhauls & related flight equipment. As of 9/30/04, the Company had invested \$5.7m in the construction of its Rickenbacker Facility, which is anticipated to be completed in the summer of 2005 at an estimated cost of \$12.5m.

Benchmark Technology Group - check imaging solution 11/16 Businesswire Benchmark Technology Group, a leading provider of branch automation solutions for financial institutions, announced Proof21, a check imaging & proof solution that is fully integrated with teller transaction processing functions. Proof21 reduces the time & expense associated with traditional check proof operations, bringing banks an efficient & cost-effective way to manage check processing at the point of presentment. As transactions are received, the teller simply selects the transaction type & drops the appropriate documents into the scanner. Proof21 verifies the scanned data, automatically creates virtual tickets, confirms & pre-fills data into the selected transaction. Immediately, the transaction is processed & proven, storing images on a central server for easy retrieval in the future. Some of the many benefits associated with Proof21 include: Significant reduction of data entry; Improved transaction accuracy; Reduced paper costs; Accelerated clearing & improved funds availability; Time & cost-savings in proof operations; Improved customer service; Files available for Item Processing at virtually any frequency. 'Proof21 was created to provide banks with a way to drastically improve efficiencies, without the need for extensive employee training,' said Jack Malinowski, Benchmark Technology Group. 'Proof21 blends the benefits of high tech image & character recognition with an intuitive teller workflow that drives the entire process. We built the product on the same open & adaptive architecture used by all of our branch software, & it has been tested with the leading check scanners on the market. Our customer's feedback was critical in the product design & as a result, we are taking the opportunities created by Check 21 into practical realities.'

BSG - courtesy overdraft program for business accounts 11/16

Businesswire BSG Financial, LLC, a provider of profit-enhancing programs & marketing services to the financial industry, announced availability of OverdraftHonor for Business Accounts, a courtesy overdraft program designed to fulfill the specific needs of a financial institution's business accounts. OverdraftHonor for Business Accounts helps financial institutions meet the day-to-day monetary requirements of business account with services such as handling payroll, obtaining volume discounts & eliminating personal accounts for designated business purposes. The courtesy overdraft program is advantageous for financial institutions & business accounts, creating an increase in fee income, while strengthening loyalty from business customers. BSG Financial offers OverdraftHonor for Business Accounts in addition to OverdraftHonor, the company's successful flagship overdraft program, which was developed for retail account holders who benefit from a one-time overdraft charge as opposed to 2 charges - the financial institution's insufficient funds fee & the merchant's bounced check fee. Financial institutions utilizing this service can enjoy an added fee income of up to 85%, while meeting the financial needs of its business accounts. 'OverdraftHonor for Business Accounts complements any existing overdraft program & enables financial institutions to steadily increase their fee income,' said Barrett Nichols, BSG. 'In a Check 21 environment, banks are gearing up to manage increased overdraft & cashflow needs. OverdraftHonor for Business Accounts is one of BSG Financial's total solution to meet the changing needs of businesses; & it works logically & in conjunction with our other business-focused program, Re\$ubmitIt, an electronic check recovery service, to further increase profitability.'

Chordiant - process-driven branch teller solution 11/15 Marketwire Chordiant Software unveiled its next-generation, process-driven, branch teller application. Chordiant Teller, a multi-channel solution that complements Chordiant's existing solutions for the branch platform, enabling retail banks to renew aging systems with an integrated branch solution. Chordiant Teller provides a complete range of processes that automate branch & teller transactions, servicing & administration. This includes cash & non-cash transactions, cash drawer management, electronic journaling, AM/PM processing, override limits, transaction management, & online/offline management. The solution supports batching & settlement activity, & core money services, desktop administration, foreign currency services & administration. It provides support for peripheral devices such as card readers, printers, check readers & pin pads, & new devices including smartcards, & support for Check 21. Chordiant Teller provides a real-time view of individual customer histories of transactions & interactions across channels, & may be integrated with both the branch platform & other core banking systems & product lines.

City National Bank of West Virginia & VSoft 11/16 Businesswire VSoft, a global information & technology provider of banking solutions announced that City National Bank of West Virginia, a \$2.2b bank in Charleston WV, has implemented VSoft's Check 21 Returns solution. eDesk Returns leverages the benefits of Check 21 by streamlining the entire process of returning checks originally presented on paper. Ensuring a position in front of bank technology trends, City National Bank has employed VSoft's Returns solution to eliminate work hours incurred by physical exception item pull. Before implementing eDesk Returns, City National processed 200,000 items per day in order to find an average of 1,000 returns per day. Since the eDesk implementation, the bank's returns process is virtually instant. Day-2 exception item pull is eliminated by capturing images on day one, & then printing the identified returns as substitute checks. 'Investing in Check 21 technology is important for compliance, & the VSoft solution provides substantial cost savings & improves our daily check processing functions,' said Chris Martin, City National. 'With each new technology, we eliminate operational redundancies & labor-intensive processes, thus creating a continual ROI for the bank.' Before VSoft's implementation, City National Bank manually identified, sorted & processed return checks drawn on insufficient funds, closed accounts, checks without signatures, or stop-payment checks. Hard copy checks were manually sorted as outgoing returns & sent through the Fed. Following the VSoft implementation, eDesk Returns automatically identifies the bank of first deposit for each item & presents the matched information to an operator, along with images, for confirmation, eliminating a significant amount of man-hours. 'The manual exception item process used to sort out returns is made a virtual process with eDesk Returns. The VSoft conversion is one of the smoothest I've ever seen,' said Chris Martin, City National. The system can present the images for signature verification, even displaying the image of the signature card, if applicable, for high-dollar items. With the eDesk Returns system, check images from day one capture are archived. Return items are identified, printed, & sent as substitute checks to BOFD. 'As new banking legislation, compliance & technology standards evolve in the financial industry, VSoft continues to meet challenges with solutions that create optimum back office efficiencies & deliver tangible results to banks' bottom lines,' said Murthy Veeraghanta, VSoft. 'eDesk Returns provides a direct electronic path to substitute checks as a check-clearing channel. It allows institutions to clear return items exponentially quicker, with reduced risk, & earlier notification to receiving institutions & their customers. eDesk Returns provides a seamless process between day-1 & day-2 operations.'

Corillian - consumer online banking 11/16 Businesswire Corillian announced the launch of its next-generation online consumer banking application, Corillian Consumer Banking. This new application delivers unprecedented levels of effectiveness in driving increased adoption, utilization & overall security in the online channel. Corillian Consumer Banking integrates hundreds of best practices observed from Corillian's experiences in serving some of the most innovative financial institutions in the world, & best practices from other highly-recognized leading financial institutions in the online banking industry. Corillian Consumer Banking integrates industry best practices in usability & functionality, proven in production & developed from best practice benchmarks established by firms such as Watchfire GomezPro & other industry experts. With this solution, financial institutions are able to immediately deploy an industry-leading online banking service to their customers, while maintaining the ability to tailor the solution through flexible configuration. This enables the financial institution to maximize its online banking effectiveness & differentiate the financial institution to meet the growing needs of its unique customer base. 'It is essential for financial institutions to apply proven best practices in the online channel to unlock new customer revenue opportunities, increase adoption & customer satisfaction, & deepen relationships with customers,' said George Tubin, TowerGroup. 'Corillian's approach to include industry-wide best practices out of the box is designed to appeal to financial institutions looking to drive greater levels of effectiveness in online banking.' 'Corillian has advanced the standard in online banking by offering a comprehensive solution loaded with industry best practices, enabling financial institutions of any size to achieve greater business results,' said Chuck Drake, Corillian. 'Leveraging industry-wide best practices & usability standards, Corillian Consumer Banking enables financial institutions to rapidly deliver online services that drive customer adoption, retention & satisfaction, all at a lower total cost of ownership. Small & mid-sized financial institutions can now deliver best-in-class online banking services in a rapidly deployable solution. Corillian Consumer Banking is attractive for large financial institutions that wish to provide a highly differentiated online banking service without the need for high levels of customization & configuration.' Corillian Consumer Banking features & options: Real-time Access & Transaction Register: Provides real-time access to all balances, transaction history & money movement, with an audit trail - coupled with the ability for customers to categorize, annotate & complete

advanced account reporting online. Bill Payment, Bill Presentment &

Funds Transfer: Provides customers with an easy way to pay all of their bills & move money between their accounts online. Scheduling capabilities allow users to execute money movement requests immediately, in the future or following a recurring schedule. Multi-lingual User Experience: Allows the bank to provide support for multiple languages, allowing users to interact with the institution in their preferred language. Alerts: Provides proactive notification of payment, transaction & payment conditions via multiple devices & delivery channels. Targeted Marketing: Enables real-time analysis of user profile, segmentation & demographic data, rule decisioning & display of targeted messages/images, enriching the user's experience, while focusing the institutions marketing efforts. Self-Service: Provides for low cost service fulfillment enabling support for electronic check & statement images & enabling customers to service their accounts online. Example self-service capabilities include address changes, check reorders, stop payments & password resets. Integrated Relationship Management: Provides a full compliment of functions enabling service representative to manage the customer & the online channel. Capabilities include rich secure messaging & workflow-based case routing & user emulation - allowing service representatives to emulate a user's online session in real-time to more effectively resolve issues.

Diebold & Carreker image IQA 11/16 PRNewswire Diebold will integrate Carreker's Quality Assurance Suite, Image Inspector, into Diebold's Opteva family of ATMs. With the enactment of Check 21, banks are increasingly capturing check images earlier in the check-clearing process, including the point at which checks are deposited at ATMs. The Opteva family of ATMs offers envelope-free deposits, enabling checks to be deposited into Diebold's IDM & cash into a Bulk Note Acceptor. Diebold will integrate Carreker's CAR/LAR & Image Inspection technology with Diebold's image technology. The integration will allow check images captured at Opteva ATMs to be reviewed for image quality & enhanced to ensure the best possible image is transmitted to the financial institution. Carreker's CAR/LAR technology significantly increases check-amount recognition accuracy. Image Inspector enhances & verifies the quality of payment images using Carreker's advanced image recognition technology & sophisticated detection patterns. It analyzes check images & flags low-quality items for repair at the item, device & file levels. The application increases the integrity of the image archive & exchanges between the bank & its archive provider & reduces related research costs. It reduces the user's risk of fraud by improving the accuracy of fraud detection systems. It is designed to work in multiple payment workflow environments & to ensure adherence to the user's privacy policies. Carreker's Image Inspector will enhance Diebold's robust check-imaging solution, ImageWay. An electronic check-imaging solution for ATMs, ImageWay is an open, end-to-end deposit automation solution, developed for the self-service delivery channel. ImageWay enables financial institutions to capture check images at the ATM, transport them to a financial institution's server & format the data so it's compatible with the institution's back-office image processes. Image Inspector will help ensure the images captured by Diebold's Intelligent Depository Module (IDM) are quality, usable images. 'More than ever before, Diebold's banking customers demand deposit automation,' said David Bucci, Diebold. 'We are constantly seeking ways to enhance the solutions we offer to our customers. Diebold's Intelligent Depository Module & Carreker's Image Inspector offer a powerful solution that will make self-service check acceptance ready for Check 21.' Doug Halvorsen, Carreker said, 'To realize the maximum value of Check 21, banks require enhanced processing for ATM image deposits. Carreker & Diebold's combined technologies help financial institutions maximize their Check 21 remote capture opportunities by improving the integrity of the ATM deposit process, minimizing the risk of uncollectable items, & increasing operational efficiencies through advanced image-based technologies.' Denny Carreker said, 'Diebold's significant market share in ATMs means that Image Inspector should increasingly become the standard for managing image quality. By capturing check images at the ATM source, banks can reduce their deposit processing expenses, achieve faster funds availability, enjoy later deposit deadlines, & share these benefits with their clients. With Image Inspector, they can do so with a high level of security regarding quality & risk.'

Diebold, First Data, ACI & Brixlogic 11/16 PRNewswire Diebold, with First Data, ACI Worldwide & Brixlogic, will use an Opteva advanced-function ATM powered by Agilis software to communicate to ACI's transaction host using the new IFX message format. IFX, an emerging standard message format that uses XML web technology, provides financial institutions with enhanced functionality of web technology & improved channel integration. 'Diebold embraces new standards such as IFX technology & continuously works with our partners to drive this new technology & help customers migrate to IFX at their own pace in response to their particular business needs,' said James Trocme, Diebold. 'Our Agilis software is a unique, customer-friendly product that provides a lower-risk evolution to IFX messaging, one transaction at a time, in addition to the all-at-once revolutionary transition offered by most vendors.' Diebold & First Data Debit Services lead the industry in support of emerging technologies by providing customers with a smooth migration to future technologies & a continued level of exceptional value. Diebold uses Brixlogic's distinctive XML-based message protocol technology to process IFX transactions from Diebold's Agilis software. Brixlogic's XML contract-driven development studio enabled Diebold to dramatically increase the speed of its IFX implementation & readily obtain interoperability with ACI & First Data. Brixlogic was instrumental in integrating customers' legacy systems & ensuring faster development of new services, as XML may become the communication standard across a financial institution's delivery channels. 'Diebold is leveraging our unique XML-based technology & helping us realize multi-channel banking integration,' said Xavier Wartelle, Brixlogic. 'Financial institutions will enjoy a dramatic reduction in the cost & time required to deploy new services, rules & policies across various customer touchpoints. Because IFX fosters interoperability among banking systems, it's capable of providing another layer of openness within the realm of financial self-service solutions.' Diebold's IFX-based solutions will support the transition to standard XML-based messaging formats as customers are ready to upgrade or replace equipment. Based on the technologies used in Diebold's Agilis software framework, customers can efficiently migrate to emerging standards. The ability of Agilis software to simultaneously support a financial institution's existing infrastructure & emerging standards, including IFX, allows customers to migrate to next-generation technology at their own pace. Brixlogic is a leading provider of next-generation development tools that enable Service Oriented Architectures based on industry standards. Its contract-driven graphical development studio is a novel approach to the design, implementation, testing, maintenance, & upgrade of SOA components that enables enterprises to transparently establish the architectural discipline necessary to jumpstart & scale their service-oriented initiatives.

Educational Employees CU & TWS 11/16 Businesswire Educational Employees CU (EECU), with 125,000 members & \$1b in assets, selected several of the ImageCenter modules including AlertManager by TWS (AlertManager) a real-time fraud prevention solution & Omega by TWS, a Microsoft.NET-based ATM deposit management solution that automates the processing & management of an ATM deposit. TWS Systems, Inc. is a leader in ATM deposit management, fraud prevention & transaction processing solutions for financial institutions. Founded in 1934, Fresno CA-based EECU has been growing steadily & currently ranks as the largest financial institution in the Central San Joaquin Valley. As the CU continued its growth, management sought a more efficient way to process its ATM balancing, which it had previously done manually. The use of TWS'

software enables EECU to automate the process, thereby increasing productivity & allowing for additional ATM's without the financial burden of hiring additional staff. Using the latest in recognition technologies, AlertManager & Omega will significantly reduce incidences of fraud coming into the CU while at the same time improving the overall efficiency of the institution. Omega users have reported a reduction of manual inputting of data by 70%. AlertManager has helped cut ATM deposit fraud by more 60% for some of the nation's largest CUs. Both solutions will allow EECU to streamline operations to accommodate its growing volume & handle increasing capacity. 'EECU is dedicated to providing the most valuable resources for our membership,' said Scott Ingram, EECU. 'TWS ImageCenter suite gives us the opportunity to efficiently process ATM transactions while eliminating fraud, allowing our CU to keep fees to a minimum & reward our members with greater access to all the services we have to offer.' Using AlertManager, EECU is able to customize fraud prevention criteria to meet its needs. The system reviews each transaction at the institution & sends an alert or warning when any of the pre-set fraud prevention criteria is met. With AlertManager, EECU receives constant updates about possible fraudulent transactions. The CU has access to an online network where they can get information on fraud activity & updates on future training conferences. 'We continue to enhance the capabilities of our ImageCenter suite, knowing that CUs need a solution that accommodates the evolving landscape of transaction processing in this image-driven era,' said Milton King TWS. 'CUs need a system to eliminate fraud, but enhance transaction processing for the entire institution. The TWS system will allow EECU to minimize costs, improve efficiencies & focus on its core competency - providing members with a convenient & secure method to complete ATM transactions.' Imagecenter will enable EECU to streamline & automate its ATM deposit processing from start to finish. The suite includes the ability to send & receive substitute documents in addition to automatically balancing imaged & non-image items using handwriting recognition tools. This image processing & handwriting recognition (CAR/LAR/ICR) technology allows users to read deposit content, while dramatically reducing data entry for ATM reconciliation.

Epson - Scan21 certification program 11/16 PRNewswire Epson, the leading supplier of value-added banking solutions, announced the introduction of the Epson Scan21 Certification Program, designed to ensure successful sales & installations of the company's TM-J9100 banking inkjet printers - the only banking printers available that enable check & ID imaging at the teller station, dramatically lowering check processing costs & losses due to check fraud. The most comprehensive program of its kind, Epson's Scan21 Certification Program will equip certified resellers, distributors & OEMs to sell, install, support & service a complete check imaging solution at the point of presentment. Unlike traditional vendor certification programs designed to provide technical competence within a narrow product focus, Epson's approach strives to ensure the ultimate success of Check 21 banking solutions by ensuring that customers, working with any certified Epson partner, gain the most rapid payback & greatest economic advantages of this technology. 'Implementing Check 21-compliant banking solutions requires a seamless end-to-end solution involving hardware, software & the bank,' said Bud Weist, vice president of sales & marketing, Epson System Device Group. 'This program arms resellers with the knowledge & support they need to deal with these complexities. Banks will feel more confident embracing cost-saving Check 21 technologies when resellers are able to provide & implement complete solutions.' By integrating digital check & ID imaging technology into a multifunction inkjet printer, Epson enables banks to capitalize on the tremendous cost-saving advantages of Check 21, while dramatically improving document handling & printing speed. With its drop-in auto-feeder, the TM-J9100 allows tellers to scan up to 25 checks at a time, & a patented check sensor virtually eliminates the risk of double check feeding. By enabling banks to digitally capture account holder identification at the teller station via an integrated ID scanner, the TM-J9100 helps banks comply with the USA PATRIOT Act, which requires all financial institutions to establish a Customer Identification Program (CIP), in which they obtain, verify, & record information that identifies each person who opens an account. In addition, using stored ID information, check fraud can be detected faster, enabling banks to increase their recovery rates on bad checks & minimize the costs associated with prosecuting fraud. Epson recognizes that successfully implementing Check 21 banking solutions requires a fully trained network of partners, & considerable partner expertise & coordination between multiple vendors. Epson's banking inkjet products provide certified partners with a strategic value-added technology that differentiates them in their markets, positions them for industry leadership, & delivers the high business potential that protects their margins. Epson's Scan21 certification offers resellers, OEMs, & distributors the training & credentials they need to gain end-user confidence & credibility.

Epson's check imaging printer partnerships 11/16 PRNewswire Epson announced that a number of leading Independent Software Vendors (ISVs) have committed to supporting the company's TM-J9100 check imaging printer. The Epson TM-J9100 is the only integrated imaging printer that combines image capture, check truncation, ID imaging, drop-in validation & high-speed transaction receipt printing in a single device. By enabling banks to perform check imaging at the point of presentment, the Epson TM-J9100 enables banks to maximize the cost-saving benefits of their Check 21 initiatives by eliminating paper as soon as possible in the payment cycle, dramatically lowering check processing costs & losses due to check fraud. Epson is committed to offering innovative point-of-service technology for banks that lowers costs & improves efficiency at the teller station. The company has worked closely with Independent Software Vendors (ISVs) in the banking industry to assure that a broad range of popular software solutions are compatible with its TM-J9100 imaging printer. 'We have experienced significant interest among banking ISVs, & we are enthusiastic about the solutions being developed,' said Bud Weist, Epson System Device Group. 'Banks want to adopt an end-to-end solution without the excessive costs & deployment times that result when hardware & software are not well integrated. With partnering ISVs, Epson can provide banks with reliable, comprehensive solutions that allow them to start taking advantage of Check 21 cost savings today.' The following ISVs have developed banking technologies that work with Epson's TM-J9100 check imaging printer: Alogent: Walk-In Payments Automation delivers increased accuracy & convenience at a business customer's walk-in storefronts & provides Straight Through Check Processing from point of payment through to interbank & image exchange, allowing banks & their business customers to experience significantly reduced workloads & processing costs, increased transaction accuracy, & increased customer loyalty & profit. Data Financial Business Services, Inc.: Draft Control Processing System features a complete check-processing package including imaging, receipt printing, ID card capture, & full CAR/LAR algorithm with detailed POD functions. The ID card image is uniquely stored as part of the transaction file for easy recall & future association. It integrates all of the features of Epson's TM-J9100 for either single or multiple teller operations where one unit would be shared by 2 or more tellers. National Source One: GoldVision21 allows true truncation at the teller window by capturing the complete check image & MICR encoding. It also automates transaction documents along with their account numbers, reads the check amounts utilizing CAR/LAR, & automatically displays the transaction for the teller to verify. Virtual cash-in & cash-out tickets complete the process. Nexus Software: INvolve Cross Channel Middleware provides device support for over 270 ATM & branch banking devices with one high level API that integrates ATM & branch solutions. From standard printers, card readers & cash dispensers to Check 21 hybrid printer/scanners, INvolve provides solution investment protection as standards & technologies evolve. Niblock Financial Systems: Tellerworks is a user-friendly, affordable banking program designed to produce the shortest transaction time at the teller window. It offers seamless integration with many validating & cash dispensing devices, & now can be used in

tandem with the Epson TM-9100 to provide digital check imaging for

Check 21 regulations. PTC Banking Systems: TellerVUE software uses ID scanning on Epson's TM- 9100 to scan & view customer ID cards at the teller station, increasing security, assisting with BSA & KYC compliance, & conforming to bank policies. A simple 'Cash Check' function allows tellers to check the customer ID & capture a view of the ID presented to the teller for reference. Other bank personnel can access & view TellerVUE images without installing software.

First National B&T & Fidelity 11/16 Businesswire First National B&T & the Fidelity Information Services announced an agreement for ImageCentre check imaging, wholesale remittance imaging, & other payment processing solutions. First National B&T, Kokomo IN, is a subsidiary of Hasten Bancshares & is one of Indiana's largest privately held banks. First National B&T serves communities throughout central Indiana & offers a complete suite of retail, commercial, trust, & other banking services. The ImageCentre suite provides financial institutions with a complete browser-based payment processing & document management solution. The ImageCentre Wholesale Remittance module automates the capture of checks, stubs, invoices & letter & legal size documents into an integrated customer transaction. Once captured, a bank's customer can access information from a web-based front end for research, report retrieval & to download files to accounting packages. BankWare developed the ImageCentre suite of products & was acquired by Fidelity Information Services in April 2004. 'We are excited about the partnership with BankWare,' said Terry Runyon, First National B&T. 'We are confident that the ImageCentre solution will be responsive to technology needs today & in the future. ImageCentre's integrated solution provides a suite of products that meet market demand, while protecting our clients' best interest. ImageCentre's browser-based solution empowers us to take full advantage of image technology - helping us to promote superior customer service.' 'The suite's integrated capabilities go beyond streamlining processing,' said Bob Darty, BankWare. 'First National B&T & other progressive financial institutions will find that ImageCentre improves transaction integrity, eliminates capture passes & expenses on imaging equipment, & enables earlier fraud detection to reduce potential losses.'

Fiserv & NetDeposit 11/16 PRNewswire Fiserv & NetDeposit finalized an agreement that will enable Fiserv to offer Check 21-related solutions through a combination of NetDeposit's distributed substitute check production & image exchange software, & Fiserv's ExchangeGuard software. The companies are actively marketing the new services. Utilizing software components from NetDeposit's product suite, Fiserv will offer printing of substitute checks across the country, & will act as a gateway for image exchange to all of its 1,700 check-processing clients & to its 6,000 account processing clients. The companies are finalizing agreements that will allow NetDeposit to deploy & market Fiserv ExchangeGuard capabilities for IQA & CAR/LAR applications. 'With proven capabilities in generating substitute checks & a platform for image exchange solutions from NetDeposit - used in conjunction with Fiserv solutions - we'll provide customers throughout the financial services industry unparalleled Check 21 item processing capabilities,' said Mark Damico, Fiserv. 'Fiserv's solutions & check processing services combined with NetDeposit's robust & scalable technology platform offers tremendous value to the industry & will ultimately accelerate electronic check processing by enabling access to thousands of financial institutions,' said Danne Buchanan, NetDeposit. 'Financial institutions need a solution positioned to handle the near term goal of creating & printing a substitute check but designed to handle payment routing, not limited to check image exchange. It is critical that the vendor demonstrate it has done the foundation work to prove it can perform check image exchange with other networks & provide substitute check printing in a networked environment. These types of solutions will allow banks to migrate towards rules-based payment routing & address issues around electronic deposit transmissions from retail & other corporate customers,' says Stessa Cohen, Gartner.

Fiserv - IRD Seal to validate substitute checks 11/17 BAI Fiserv introduced IRD Seal, a product that helps authenticate substitute checks, prevent fraud & expedite research as financial institutions look to take advantage of Check 21. Check 21 was implemented beginning on 10/28. Financial institutions were required that day to accept substitute checks - documents produced from images of the actual checks. Developed along with Enseal Systems Ltd, a leader in document technology, IRD Seal is an image survivable security feature that contains encoded information specific to the substitute check, including the original MICR & the truncating & re-converting bank information. IRD Seal is an application of the proven Secure Seal technology already deployed as part of the industry-leading Fiserv FraudGuard suite of applications used by organizations such as BoNY, Bank One, First Data, JPMorganChase, Northern Trust, Treasury/Fed & Viewpointe Archive Services LLC. Unlike barcode solutions, Secure Seal can be incorporated easily into overall check/IRD design in an aesthetically pleasing manner. Secure Seal technology was included in a FSTC study of image survivable security features. FSTC's indicated that the Secure Seal was read electronically 99.8% of the time with industry standard black-&-white images. 'We believe the IRD Seal offers outstanding protection for financial institutions that want to take advantage of the opportunities created by Check 21,' said Mark Damico, Fiserv. 'This technology is being used by some of the nation's largest financial institutions to combat check fraud. It was a logical extension to use it to authenticate substitute checks.' Fiserv is using IRD Seal to authenticate the substitute checks it creates in Fiserv item processing facilities for financial institutions. The company is marketing the product to financial institutions that choose to create their own substitute checks.

FSI & VSoft 11/16 Businesswire VSoft announced that Financial Services Inc (FSI), a provider of data processing, items processing & Internet services to financial institutions, has chosen to implement VSoft's fraud prevention solution, Fraud In-Check. VSoft's Fraud In-Check is a check fraud detection system, which automates check verification by reading check faces & digitally capturing all payment information. It then compares captured, digitally archived information with check archives & signature card files. 'The fraud In-Check module of VSoft's eDesk family improves our ability to identify potentially fraudulent checks, & saves our banks money,' said Kevin Courtney, FSI. Criminals & organized fraud rings are finding new ways to exploit the payment process, causing fraud detection to be a top priority on bankers' minds. No financial institution has the time or the resources to study every check that crosses its threshold. With losses at individual institutions mounting into millions of dollars, none can afford to ignore the possibility of fraud. 'With VSoft's Fraud In-check, check comparisons are more valid & accurate, as opposed to a smaller random audit with human eyes prior to Check 21. Before a product such as Fraud In-check was available, the more items banks reviewed, the more expensive it became to reduce high-dollar check fraud. Fraud In-Check minimizes associated costs due to fraud & reduces our liability.' 'VSoft's Fraud In-Check product offers institutions the right tools to combat check fraud,' said Murthy Veeraghanta, VSoft. 'Detecting fraudulent incidents becomes effortless with VSoft's sophisticated system, helping our customers avoid the revenue drain of check fraud.'

Hypercom & SiVault - transaction delivery, signature verification solution 11/16 PRNewswire Hypercom's HBNet subsidiary announced an agreement with SiVault Systems, a leader in the secure storage & retrieval of signed documents & biometric signature-based authentication. The

companies will implement Hypercom's HBNet information delivery service to provide high performance transaction processing speed, convenience & security to the medical, financial & retail communities. SiVault Systems' selection is the latest in a series of US market wins for Hypercom's new HBNet information delivery service. The selection follows SiVault Systems' agreement to combine its end-to-end signature verification technology with Hypercom's high speed Optimum L4100 signature capture card payment terminal. Hypercom terminals together with the global payment technology leader's high speed, high performance HBNet data communications network deliver new levels of authorization & processing speed to customers conducting dial or IP transactions at the point-of-interaction in retail POS, financial, government, healthcare & markets. 'HBNet gives us unique capabilities to support high-speed processing & multiple front-end technologies with a no-single point of failure architecture at competitive prices,' said Emilian Elefteratos, SiVault. 'Consumers are demanding speed, superior service & security - especially in today's fast-paced environment - & retailers nationwide want to meet that demand. Now they can do it with HBNet's high performance transaction delivery network, Hypercom's card payment terminals & SiVault Systems' end-to-end signature verification technology,' said Sharon Cline, HBNet, Inc. Hypercom's high performance HBNet network for North America's dial & IP POS market speeds the authorization & processing of electronic transactions for the retail POS, financial, government, healthcare & other transaction-based markets - giving processors a competitive, reliable & secure alternative to existing suppliers. The HBNet transaction network is powered by the payment technology leader's robust, ultra high-density MegaNAC180 Network Access Controllers (NACs), which are strategically positioned within the North American Public Switching Telephone Network (PSTN) & at processor data centers. HBNet supports all POS card payment protocols & formats communicating at up to V.92 speeds, including Hypercom FastPOS, the 9600 bps fast train modem technology which allows high-speed transaction processing, software downloads & batch uploads. With the MegaNAC180's unique parallel processing architecture, HBNet provides unparalleled resiliency, fail-over & transaction overflow capabilities. It delivers continuous, uninterrupted service, seamlessly load balances, & is constructed to have no single point-of-failure.

Keybank - Check 21 designed to reduce delays 11/15 CrainsClevelandBusiness Check 21 is a sweeping new federal law designed to make the check clearing process more efficient & will benefit every business in America. In a transformation as profound as that from pony express to airmail, Check 21 will enhance the speed & security of paying by check. The most important aspect of this legislation is the creation of a new negotiable instrument, the substitute check, which has all the legal properties of an original. Under the new law, all checks are able to be converted to substitute checks, except foreign checks, TT&L documents & Savings Bonds, & all parties are required to accept substitute checks in lieu of the original check. The creation of substitute checks is important because it removes the need for physically transporting checks across town, or the country, before they can be cleared. It allows a bank to truncate the checks - or remove an original check from the collection & return processes - by creating digital images of the paper checks. Check information is now processed electronically and, if needed, a substitute check will be printed & delivered to banks that are not prepared to accept an image of the check. Digital imaging will reduce delays in check clearing, improve access to information, reduce the risk of fraud losses, & ensure operational continuity. Reducing the delays in check clearing will produce significant benefits for businesses. For example, Check 21 will expedite deposits, so businesses no longer will have to worry about missing deadlines. Check 21 will facilitate such accelerated deposit options as remote capture, which will enable companies to create their own digital checks for electronic transfer to their bank accounts. When a customer pays a bill by check, the business receiving the paper check will be able to generate a digital check image onsite & transfer the funds electronically to the bank or ACH lockbox, expediting the clearing process. This innovation represents such an enormous advantage in security & convenience to businesses that some companies, particularly large-volume retailers, are considering the introduction of electronic image delivery & imaged statements into their operations. Naturally, accelerated check clearing & deposits will accelerate access to information. Paperless fund transfers will provide near-real-time viewing of transactions to banks & next-day viewing of all cleared checks to customers. Businesses with national or global operations will be able to process & report transactions electronically, sharing reports among multiple locations. Accelerated access to information will ensure faster notification of returned items so businesses can expedite the collection process. With Check 21 remote transfer, the check no longer will be in the mail from the business to the bank & never vulnerable to theft or fraud as they are now during physical transit, typically by mail. Check 21 will accomplish this transformation through technologies that have evolved rapidly in banking & finance. Industry leaders are testing the security & efficiency of check imaging & digital fund transfer technology in the real world. KeyBank & Bank One installed, tested & implemented early on the same systems that Check 21 supports nationwide. KeyBank will introduce another such pilot with the Federal Reserve in IQ 2005.

Mellon & SourceNet Solutions 11/16 PRNewswire Mellon will acquire SourceNet Solutions one of the country's leading providers of finance & accounting BPO services. Based in College Station, the privately-held company specializes in A/P outsourcing. SourceNet, which has 225 employees, will remain in College Station. 'SourceNet shares our commitment to quality, customer service & operational efficiencies, & adds a complementary outsourcing strategy to our collection of Treasury Services solutions,' said Martin McGuinn, Mellon. 'This is a significant step in our efforts to expand our product line for institutional customers.' Founded in 1996 to meet a growing demand for outsourcing services, SourceNet's core business focus has centered on providing best-in-class process & technology solutions within long-term BPO relationships. Its customer base includes organizations specializing in transportation, manufacturing, retailing & wireless services. In its role as a market leader in A/P outsourcing, SourceNet has a proven track record of growth & success, & has consistently demonstrated the ability to help companies reduce their direct operating costs by 30% & achieve continuous process improvement. By acquiring SourceNet & expanding into the A/P outsourcing market, Mellon will be a pioneer in addressing a process-intensive area where finance managers have an opportunity to drastically reduce their costs. 'The addition of SourceNet to our portfolio of businesses is exciting. For Mellon, it provides an entry into the finance & accounting business process outsourcing market & supports our goal of offering clients a more complete working capital management solution,' said Robert Stasik, Mellon. 'This initiative will better position each of them to meet the tremendous growth potential that our research predicts for A/P outsourcing.' 'By joining Mellon, we will have access to a well-established, stable distribution channel & easier, faster access to payment systems for expanded A/P offerings,' said Vince Burkett, SourceNet. He will continue to head the organization, reporting to Stasik. Mellon has a presence in Texas with nearly 250 employees. In addition to a lockbox site in Dallas with 160 employees, other Mellon businesses are located in Dallas & Houston.

Metavante online bill consolidation services 11/16 MarketWire Intuit has migrated the majority of its Quicken Bill Pay customers using Quicken for Windows to Metavante's online bill management application, Bill Manager V6. Intuit is a leading provider of business & financial management solutions for small & mid-sized businesses, consumers & accounting professionals. Intuit began migrating its Quicken Bill Pay customers to the Metavante next-generation online bill consolidation solution with the launch of Quicken 2005 for Windows in 8/04. The Metavante online bill

consolidation solution enables Quicken Bill Pay customers to view, approve, pay, & manage all their bills - paper & electronic - from a single Web site, delivering a 100% online bill consolidation service. Quicken Bill Pay customers have the ability to synchronize bill & payment information between the Quicken Bill Pay service Web site & the personal financial management software. 'Metavante has established a solid track record in creating innovative, high-quality technology in the electronic billing & payments services arena, which made them ideal to have as our strategic partner,' said Michael Klieman, Intuit. 'With Metavante, we are able to provide our customers what they've been asking for: shorter payment lead times, extended support hours, a friendlier Web interface that is easier to navigate, more biller coverage & more frequent scheduling options.' 'Our newest online bill consolidation technology is an easy & compelling way for consumers to receive & manage their bills online,' said Frank D'Angelo, Metavante. 'Organizations, like Intuit, have come to rely on the robust capabilities & intuitive interface of Bill Manager V6, including our unique SmartBalance.' Metavante EPP is a leader providing a complete end-to-end solution supporting the entire life of the bill. Its document composition software is the premier customer communications tool for 400 clients representing various industries. Metavante provides innovative bill publishing & bill consolidation technology that generates millions of monthly payments & serves both biller & financial markets. Serving 3,000 clients, the reliable & scalable Metavante presentment & payment engines enable businesses & consumers to present everything & pay anyone, anywhere, anytime.

Mitek streamlines document processing for banks 11/16 PRNewswire Mitek announced availability of QuickStrokes Premier Banking Edition that delivers the highest CAR/LAR recognition accuracy in the industry. QuickStrokes Premier Banking Edition creates significant workflow efficiencies for financial institutions by automatically & quickly processing personal & business checks, cash in & out tickets, deposit slips & other negotiable financial documents with increased accuracy; reducing data entry costs by up to 90%. The system's ability to locate & CAR/LAR has the highest accuracy rate in the industry. 'This Check 21 compliant edition of QuickStrokes is based on Mitek's world-class ICR technology, giving banks the assurance that all documents will be processed at lightning quick speed with an incredibly high accuracy rate,' said Grigori Nepomniachtchi, Mitek. 'Major financial institutions, corporations & government organizations worldwide have been relying on QuickStrokes for a decade. QuickStrokes Premier Banking Edition will provide banks with an even more advanced document processing capability, giving them an immediate return-on-investment in terms of cost, time & labor savings.' QuickStrokes is an advanced programmer's development kit that enables an application to recognize text with high speed & accuracy. The solution reads machine-printed text, hand-printed text, numerous bar codes & check boxes. The application is 'intelligent' enough to accept most machine-print fonts & most hand-printing styles without advance training on that font or style. There is no limit to the number or size of text fields on a page. Fields may be of any size, from single words & multi-line zones to an entire page, & they may be rotated in any of the 4 main directions.

NCR - banking convenience for low-volume branch & retail environments 11/15 BAI NCR launched its EasyPoint 62 ATM, the latest member of NCR's EasyPoint range of products, designed specifically for deployment in lower volume branch & retail locations. The small footprint, indoor ATM has one of the largest, brightest screens in its class, yet it allows for low levels of energy consumption, state-of-the-art security & rapid, easy deployment with low total cost of ownership. This freestanding ATM's small service footprint is up to 40% lower than comparable machines, ensuring the best use of retail or branch space. The enhanced features combine to offer more profitable deployment opportunities. The EasyPoint 62 supports multiple communications options including wireless connectivity. The ability to use wireless communications maximizes flexibility & can significantly reduce installation time, cost & disruption to store operations by eliminating the need to install traditional fixed telephone lines. It can lower the total cost of ownership by significantly reducing communications costs compared to integrated services digital network, or ISDN. The EasyPoint 62 offers an optional intelligent power management system with an integrated uninterruptible power supply. In the case of power failure, the ATM completes the on-going transaction before shutting down. The unique intelligent power management system can be programmed to conserve energy in quiet periods & the ATM can be automatically switched off or on at pre-programmed times if located at sites that do not require 24-hour availability. Mario Perottino, NCR, said, 'The EasyPoint 62 is the ideal solution for profitable deployment at indoor sites that may not have previously been considered suitable for an ATM. The low power consumption & high reliability keep service & maintenance costs down. Reducing in-store rental by having a smaller footprint is very important in retail deployment.' The EasyPoint 62 can run on a Windows XP platform. Using NCR's APTRA software suite, it can access the same applications found on NCR's Personas range of ATMs. Using the one software application on both Personas & EasyPoint 62 ATMs allows easy integration across an existing network. It ensures consistent look & feel in customer messaging. The EasyPoint 62 can be used to provide revenue-generating services such as mobile phone top-up. The EasyPoint 62 incorporates NCR's latest anti-fraud technology on the card reader & dispenser, & the encrypting PIN pad with remote key download & optional privacy wings.

NCR's Personas M Series ATMs 11/15 BAI NCR announced the latest evolution of its Personas M ATMs, with the introduction of the NCR Personas M 76. Designed on a single platform, the Personas M Series 76 delivers the modular flexibility that enables banks to easily introduce advanced ATM functions while protecting future investment. The Personas M 76 is a multifunction, freestanding lobby ATM that delivers an unrivalled range of capabilities on a single configuration, including cash dispense, 'No Envelope' Deposit, check & cash acceptance with electronic image processing, cash recycling & other account-based transactions. The bunch-note acceptance option will validate up to 200 notes per transaction & will store up to 9,200 notes. NCR gathered research & feedback from customers & consumers worldwide to design this new unit, delivering technology that enhances screen readability & accessibility from all points of interaction. Transaction privacy is enhanced with new customer privacy panels & the compact user interface that minimizes hand & eye movements. Andrew Orent, NCR, said, 'Migrating deposit transactions from the teller to the self-service channel lets banks optimize cost savings while gaining a customer-service differentiator. Image-based deposit acceptance has certainly grown in importance with the enactment of Check 21. Banks want the flexibility to add this feature whenever it makes the most sense to meet their business & customer needs. The Personas M Series 76 addresses our customers' demand for an interior ATM that can be easily upgraded.' The Personas M 76 is the only ATM on the market to offer an option to upgrade for cash recycling within the existing unit base instead of as a sidecar add-on. Cash recycling, which has proven popular outside of the US, allows the ATM deployer to re-use the cash deposited into the ATM for cash dispensing, decreasing the need to replenish the cash held within the ATM safe. Like the entire Personas family, the Personas M Series 76 supports triple data encryption standards, remote key management & other security features. These enhanced security features & countermeasures to fraud include the unique design of the illuminated card reader surround, integrated magnetic card reader/writer & smart dip card reader which allows the card to be quickly inserted & withdrawn without a machine holding the card. Customers can opt for enhanced card drive security, known as 'jitter,' & card return in the event of power failure. Fluiditi ink staining is available for enhanced physical security.

Northern Trust & Getronics Globalfs teller system 11/16 Businesswire

Northern Trust has selected Getronics' Globalfs as the new teller system for its branch network that spans 15 states. Globalfs, the software component of the Getronics 3D for Retail Banking solution, will optimize the productivity of Northern Trust's employees by delivering excellent customer service capabilities & speedy, full-service transaction processing. The Getronics Globalfs teller solution, tailored to the bank's business & technical requirements, is an important addition to Northern Trust's ongoing efforts focused on the quality & effectiveness of their client servicing capabilities. The solution's centralized delivery model, fault-tolerant transaction processing & automation of previously manual processes will increase operating efficiencies & enable Northern Trust's banking professionals to focus on their customers' experiences & not on operations & systems. Globalfs teller application is the first integrated retail banking software platform to leverage Microsoft's 'Smart Client' technology to maximize application availability & enterprise-wide 'no touch' software management & signature verification. An additional feature of Getronics Globalfs will be the implementation of check truncation & image capture at point of presentment to reduce float, reduce paper check cost, & enable the bank to serve customers faster & more securely. This capability will help establish Northern Trust as a leader in Check 21 adoption. 'Globalfs software will be an important component of our teller servicing platform. This application was able to meet our stringent requirements. Getronics' professional services capabilities will provide guidance as we engage in detailed design, & implementation,' stated Northern Trust's Peter Ruegsegger. 'In our selection process we viewed Getronics as a firm with a strong, proven capability to assist us in achieving the value proposition associated with our teller-related initiatives.' 'Implementing a new teller system provides an excellent opportunity to analyze & optimize processes to increase service & productivity,' said Kevin Roche, Getronics. 'This is the approach that Northern Trust is taking in working with Getronics. They enjoy a reputation for combining the latest technologies with a highly personalized customer service approach. Globalfs will enable Northern Trust to integrate delivery & optimize productivity across their mission-critical branch network. Our commitment is to help them deploy & grow an agile environment that will enable them to profit from the changes faced by a bank of their stature.' Northern Trust plans to roll out the Globalfs teller application in 1H 2005. Getronics will provide systems integration, project management, & ongoing support to the bank.

NSO & MICR Resource Management 11/16 Businesswire National Source One (NSO), a provider of branch automation solutions for community banks, announced that Chicago-based MICR Resource Management (MRM) will provide the hosting for its newest product, GoldNet. The real-time Internet banking solution provides banks' customers with complete security & ease of use. When combined with GoldCheck21 Complete Item Processing Solution, statements & check images can be delivered electronically, maximizing convenience, profits & efficiency. 'MRM chose to host GoldNet in order to offer competitive, function-rich Internet solutions at prices affordable to even the smallest community banks,' said Mike Golebiowski, MRM. 'Combining the flexible architecture of GoldNet with the community bank focus & reasonable prices of NSO & MRM makes offering a home banking site more sensible than ever.' As one of NSO's strategically positioned Systems Integrators (SIs), MRM offers a variety of 'Gold' automation solutions to community banks. The provider offers item processing, core processing & is now hosting bank Web sites in response to an increased market demand. 79% of community bank executives rated Internet banking services integral to their bank's success in Grant Thornton's annual survey. The number of customers banking online is growing every year. 'GoldNet enables community banks to offer home Web sites without applying any additional charges to customers,' said Rick Kramer, NSO. 'This addition to our 'Gold' suite of products further demonstrates NSO's commitment to provide community banks with a full range of automation solutions.' NSO's Gold suite includes GoldCheck21 complete item processing solution; GoldNet Internet banking; GoldDeposits account origination; GoldReel microfilm replacement, MICR indexing & X9.37 export; GoldImage positive customer ID; GoldResource staff scheduling; GoldCheques laser check printing; GoldPix microfilm replacement, GoldTracks loan document management solution & GoldMonitor Patriot Act 326 compliance. 'We make it a priority to provide community banks with the technology that meets their needs. All banks have different requirements, so we have positioned our products to be installed & supported by select System Integrators that are able to offer personalized service to community banks.'

NSO GoldVision21 11/16 Businesswire National Source One (NSO), a provider of branch automation solutions for community banks, announced GoldVision21, a transaction capture module designed to enhance the company's GoldCheck21 item imaging solution. GoldVision21 is a document driven system that completely automates transaction input. By reading & imaging not only checks but other transaction documents (deposit tickets, etc.), it determines the type of transaction & the accounts involved. The solution compares the CAR/LAR of an imaged check with the deposit slip amounts, eliminating the need for manual transaction entry & reducing the chance of error. It displays the complete transaction for approval, allowing the option of adding to or modifying the transaction. GoldVision21 will prompt balancing options if a transaction is out of balance. When the transaction is completed, receipts are printed & virtual cash-in & cash-out tickets are generated. 'It is crucial for community banks to leverage the provisions of Check 21 to their competitive advantage,' said Larry Hill, NSO. 'GoldVision21 automates transaction input, providing improved customer service, increased speed & reduced chance of error. This user-friendly solution enables community bank employees to focus their attention on the customer, where it belongs.' GoldVision21 images the front & back of checks & reads the MICR encoding at the time of the transaction to expedite truncation & enhance operational efficiency. The images are passed to GoldCheck21 for proof & presentment. 'GoldVision21 expands the offerings of a proven product with established standards of image quality. Inferior images would disrupt the flow of a bank's system, negating many of the efficiencies Check 21 offers. GoldVision21 builds on the success of GoldCheck21 & our proven check imaging quality. This customizable package allows NSO to address the needs of individual banks, providing services that will streamline their processes & exceed expectations. It is evidence of NSO's commitment to provide our customers with the best possible solutions at an affordable price.' NSO's philosophy is that community banks appreciate a local service provider. The company has built its business by selecting the best partners & Systems Integrators available to provide local service & superior customer support. NSO has 8 Systems Integrators located across US that market, install & implement the complete NSO suite of branch automation products.

Paragon Application Systems, Diebold & NCR 11/16 PRNewswire Paragon Application Systems, the primary supplier of ATM simulation & EFT test tools to financial industry leaders, announces the latest releases of ConfigBuilder 4.1, ATMulator 2.1, & FASTest 2.2-Paragon's flagship offerings for ATM configuration, simulation, & testing. ConfigBuilder will support testing of EMV (known as chip card or Smartcard testing) for Diebold & NCR ATMs. The releases will support alphanumeric states, GIF images, testing of Text-to-Speech (TTS) & multi-currency dispenses, & offer formatted message displays. 'As our business partners & clients develop support for leading-edge features, they rely on Paragon's tools to provide the means to implement & test these next-generation ATM offerings,' says Kathy Cameron, Paragon. 'Institutions operating in the US need to meet the latest ADA guidelines. With Text-to-Speech in ATMulator plus ConfigBuilder, creating & testing audio support at ATMs becomes much easier. On the other hand, international clients require support for EMV & cash/check accepting terminals, known as bunch note acceptors.' 'For

more than a decade, our customers have depended on Paragon Application Systems to provide enabling technology in the form of configuration, simulation, & testing tools to allow them to take advantage of the latest ATM features & get those features to market.'

Regulus & US Dataworks 11/16 PRNewswire Regulus, the nation's largest single provider of bill presentment & remittance processing, will partner with US Dataworks & a worldwide financial services provider for the nation's first commercial roll-out of Check 21 truncation. The processing of electronic images brought about by Check 21 builds naturally on Regulus' existing electronic settlement expertise, & solidifies the company's industry leadership in the evolution from paper to electronic processing. 'Given the importance of this pilot, we sought out the strongest possible partners. We are delighted to build on our existing client relationship & expand our partnership with US Dataworks,' says Kathy Hamburger, Regulus, 'As a leader in the payment industry, we are very excited once again to be on the forefront with Check 21.' Regulus is working with US Dataworks who will develop the Federal Reserve's X9.37 format for Check 21 image exchange services for its financial services client. Based on the success of the initial launch in the New Jersey area, company officials expect a national rollout in 2005. Check 21 allows providers to transmit images of checks electronically rather than transporting paper checks across the country. Like ARC, Check 21 brings enormous benefits to corporations, by clearing checks faster & providing funds sooner, literally reducing check settlement from days to hours. These revolutionary changes in the check clearing process yield operational efficiencies & savings, in areas such as return item processing, research, exception & fraud handling, not to mention an overall reduction in the cost of processing itself. Regulus is uniquely positioned to guide corporations through the dramatic changes sweeping the industry as a result of Check 21. The company was first to market with ARC, & is the only transaction processor able to seamlessly move large volumes of paper & electronic transactions, uniting the entire billing & collection cycle under one roof.

S1 #1 small business banking vendor 11/16 Businesswire S1 has been ranked as the #1 small business banking technology vendor by Celent Communications in *US Small Business Banking Vendors 2004: Strategies for Survival*. S1 was awarded a top rating for the ease-of-use of its online business solutions chosen by hundreds of banks, from community banks to top-10 banks, to reach the lucrative small business market. 'S1 continues to be a leader in the small business banking space,' said Christine Barry, Celent. 'S1 customers are extremely satisfied with the company, & S1 continues to acquire new customers at a healthy pace. Its small business banking solutions are selected by banks for many reasons, including ease-of-use, necessary functionality offered at an affordable price, vendor experience, & high levels of security at the data center & the transaction level. With its Enterprise Platform strategy well-aligned with new bank strategies, S1 has an advantage over many of its competitors in that it offers products beyond business banking in a multi-channel environment. S1 is a strong force in the small business space & a vendor to keep an eye on.' Celent examines banks' efforts to generate additional revenues by focusing on the relatively untapped small business segment with new online banking solutions designed specifically to meet the needs of small businesses. The solutions & the technology providers are analyzed & ranked according to seven major criteria: number of successful deployments/experience in the industry, depth of solution features, financial viability of the vendor, solution customization/flexibility, level of client support provided, & solution ease-of-use. Important considerations in the evaluations were banks' great emphasis on solution usability, depth of functionality, & the ability to create targeted packages that allow banks to offer more sophisticated capabilities as customers' needs grow. S1's number one ranking took into account evaluations of S1 Business Banking & S1 IBS Cash Management solutions & recognized the strengths of numerous aspects of the company & its solutions, including: S1's unique multi-channel capabilities, which address the growing desire of banks to gain one view of customer interactions across channels & limit the number of overall technology vendors. The international presence of S1, which allows the company to reach top customers in global markets. The ease-of-use of S1 Business Banking, which customers describe as intuitive & easily navigable. The report calls attention to S1's common administration tool for banks, S1 Application Manager, which provides a single administration module to set up customers, branding, product packaging, & system settings. The satisfaction of customers, which have noted to Celent that S1 'is very responsive to their needs & continues to add cutting-edge functionality to its solutions.' S1's broad product portfolio which includes branch, retail, trade finance, voice, analytics, insurance & loan origination solutions. 80% of banks using S1's retail solution deploy S1 Business Banking to offer a common online user experience for customers that use both solutions. 'The consistent high rankings of S1 in Celent highlight our focus on satisfying our customers & enabling their success through effective implementation of rich, user-friendly solutions,' said Ron Young, S1. 'This year's number one ranking points to S1's leadership in the community banking market & with banks that are looking for an Enterprise solution with multi-channel capabilities.' S1 Business Banking, 1 of 9 S1 Enterprise applications, features robust modules for account information, payments, transfers, checks, & services. The solution offers complete basic banking & cash management features for business users ranging from small-office/home-office users to mid-sized organizations with dozens of employees. The S1 IBS Cash Management solution offers financial institutions a highly cost-effective solution with wide array of product features for servicing business customers.

Synergent, VSoft & Check 21 11/16 Businesswire Synergent, an item & data processing services provider to northeast regional CUs, has chosen image & branch item capture solutions from VSoft to enable successful Check 21 transitions for its 110 CU customers. The software will reduce processing costs & improve operational efficiencies at Synergent. 30 CUs relying on Synergent for processing services have signed on for VSoft's branch item capture product suite, allowing a full range of imaged item processing benefits. Since its installation of the VSoft eDesk suite of products in 2003, Synergent has transformed the way it captures share drafts, replacing film with digital images & significantly streamlining company operations. Extending these benefits to CUs through branch item capture technologies eliminates the need for microfilm, provides the ability to balance deposits before sending to the processor, & enables online archival research. 'With Check 21 requirements looming, we've been interested in finding how we could better serve CU's teller deposit & image exchange needs,' said Dawn Paquet, Synergent. 'We've strongly encouraged our CU customers to adopt branch item capture capabilities that will allow them to take full advantage of the technologies & systems we've implemented in preparation for these exciting changes in item processing.' Synergent is targeting 100% branch item capture adoption, poised to enable CUs to realize cost savings related to the physical transportation of checks, & improved efficiencies in balancing & bundling each day's check volume. Eliminating service constraints related solely to the transportation of branch capture items will allow Synergent to broaden its regional item processing market. 'Although the advent of Check 21 is going to create broad service & savings opportunities for financial institutions, the CU industry will drive implementation at a faster pace & at an overall lower cost. CUs use Corporate CUs or League Service Organizations as processing centers, whereas banks have to install technology solutions on a one-off basis.' Synergent uses VSoft's eDesk Document Imaging & Research & Archive modules to create images of CU share drafts & store them in an image archive for future retrieval. VSoft built interfaces between Synergent & its CU customers that offer Internet banking, allowing access to check images in Synergent's archive. VSoft's eDesk family of

products improves employee productivity, reduces operational costs, & allows for incremental growth through its modular design. 'VSoft has benefited from its working relationship with Synergent's innovative, service-oriented approach to item processing since 1999,' said Puneet Malhotra, VSoft. 'As we work with Synergent & its customers during this paradigm shift in item processing, we'll focus on helping bring the benefits of item imaging & image processing to the branch level.'

Yodlee - next generation bill pay 11/16 Businesswire Yodlee announced an advance in EBPP with the launch of 2 new offerings: BillDirect for Card Issuers & the Yodlee Direct Payments SDK. Utilizing an Internet-based bill payment network, these new solutions enable consumers to make same day payments, & to pay with a credit or debit card to earn loyalty & rewards points. For FSPs, these solutions present a unique opportunity to earn interchange & finance fee revenues, turning EBPP from a cost center into a profit center. 'For years bill payment services have been an expensive but necessary proposition for financial service providers in order to attract & retain customers. Now financial institutions can offer a superior, free bill pay service & actually profit from it,' said Hill Ferguson, Yodlee. 'This is a winning proposition for all parties - consumers, financial institutions, & billers - because BillDirect leverages the biller-direct efficiencies & provides superior functionality for end users.' 30m households pay bills online & this number is expected to exceed 50m in the next few years. Yodlee's BillDirect is the only EBPP product to leverage the benefits of the biller direct & consolidator models while delivering the richest bill presentment & unique, transaction-level alerts for monitoring fraud & avoiding overdraft charges & late payments. Yodlee's EBPP offering, BillDirect, launched this year with AOL & LowerMyBills.com. BillDirect for Card Issuers is the first EBPP offering to enable same day, card-based payments so consumers can earn reward & loyalty points. With BillDirect for Card Issuers, users can: view bills, pay bills (via multiple payment options), schedule one-time & recurring payments, track payments & bill history, auto-register for online accounts, & receive customized alerts - all in one complete, easy to use online solution. Benefits for Consumers: Same Day Payments - consumers can make payments in real-time directly to their billers - the fastest payment speed in the market today. Ability to Earn Reward/Loyalty Points with Every Payment - via the use of credit card & debit card payments. Flexible Payment Options with Credit & Debit Cards - consumers can pay bills with their credit or debit card instead of requiring payment solely from a DDA account. Rich Bill Presentment - only Yodlee presents bills from 2,800 billers. Personalized Alerts - Alerts deliver emails for a host of important events, including receipt of a new bill, automated payment made for a bill, due date reminders. Benefits for FSPs: Revenue - Financial Service Providers can make EBPP an attractive business opportunity, earning new interchange & finance fee revenue through the use of credit & debit card payments. Lower Cost - By leveraging its core account aggregation platform, Yodlee's BillDirect costs 70% less than competing EBPP platforms. 'This is a approach to EBPP that we believe will drive unparalleled usage & adoption of online bill pay as more financial institutions launch this unique offering & as more consumers realize the benefits of BillDirect for paying & managing all their bills,' said Anil Arora, Yodlee. 'The next year is going to mark a interesting time for the evolution of online payments.'

Banking & Payments

Banks explore virtual branches for corporate customers through remote check deposit capture 11/16 PRNewswire Thanks to Check 21, businesses may no longer have to make a trip to their local bank branch to deposit checks. The combination of Check 21 & advances in check image technology have enabled the capture of images of check deposits at nonbank sites - such as within a corporation's own offices. These images are transmitted electronically to the bank & reconverted to printed form as 'substitute checks' for further processing. Several banks in the US have begun to offer business customers remote deposit capture, in effect creating a 'virtual' bank branch that can provide significant convenience & flexibility to those corporate customers. 'While the virtual branch offers both banks & their corporate clients greater convenience & control, banks must take a measured approach in introducing the product to ensure that fraud losses, processing errors, & image quality problems are controlled effectively,' said Robert Hunt, TowerGroup. Several banks are offering business customers remote deposit capture, which they believe creates a 'virtual branch.' In addition to offering clients greater convenience & cash management control, banks see this move as helping them consolidate the banking business of clients that maintain accounts at multiple banks - while potentially winning new corporate clients. There are several business environments that are well suited for remote deposit products. These include corporations using deposit concentration services, businesses receiving high-value checks, companies receiving checks at nonpayment locations & businesses using Internet banks. TowerGroup believes that banks will succeed in their quest to sell remote deposit products to their corporate banking customers. Although the initial focus of these initiatives should be on clients with low-volume check deposits, the product has future application for higher-volume depositors as banks ultimately implement electronic check presentment - the next stage in the check 'electronification' process. Banks will need to address several issues related to remote deposit capture before widespread roll-out of this technology can occur. These include the defining of legal liability between the bank & corporate depositor, the quality of the check images remotely captured, & new controls to detect erroneous or fraudulent check deposits. 'TowerGroup does not expect remote deposit check volume to grow exponentially over the next several years. We expect a steady volume growth as businesses seek to handle their check deposits more efficiently.'

ATMs as a consumer necessity 11/16 MarketWire 35 years after the ATM first landed on American soil, the ATM still rocks. It was 1969. Neil Armstrong had just taken his first steps on the moon, Woodstock grabbed a generation's imagination - & the first ATM in the US was installed in Queens. Much has changed. The moon is no longer the focus of space travel, music has evolved & the ATM has become a way of life. In a poll conducted by Harris & NCR, respondents rated technology advances according to how much they would miss them if they didn't exist. 68% of US adults online who have an established banking relationship indicated they would miss ATMs if they didn't exist - making this device missed by more people than the cell phone (63%) & the dishwasher (58%). 43% went so far as to confirm that ATMs have changed the way we live. From that first ATM installed in Queens, there are 384,000 such machines stateside. Americans enjoy one of the highest ATM densities on earth, with 1,300 ATMs per million in the US. But for many, that's still not enough. 43% of online adults with an established banking relationship said their bank doesn't have enough ATMs, compared to just 2% indicating their bank has too many ATMs. For the youngest age (18-34), 1/2 wanted more. Of the adults, 92% indicated it's important to them to have access to banking services wherever they need to be, & 83% cited the importance of access 24x7. People's attitudes are changing, & the ATM is evolving to reflect this. Consumers want new levels of service such as the ability to deposit checks or pay bills at the ATM instead of waiting in long teller lines. 91% said it is important to them that banking services be tailored to their individual needs. The latest banking software offered by NCR allows that. The customer can be greeted by name & even offered 'your usual transaction,' making the process even quicker. As Keith Taylor, NCR, points out, in some respects this is just the beginning. 'Woodstock may have had its heyday, but the ATM is timeless. Just as technology has evolved since 1969, so has the ATM. It is still here, delivering services we never thought were possible back then. Today, the ATM is synonymous with card in/cash out, but it never really became an automated teller - until now. Just when consumers are expecting more convenience, the ATM has evolved to meet our self-service needs.'

Is online banking at a crossroads or traffic jam? 11/10 eMarketer eMarketer estimates that 31.5m households are currently banking online, & that figure will rise to 45.0m by the end of 2007. According to eMarketer *Interactive Banking*, the success of online banking is creating a crisis at many banking institutions. Customers have unquestionably adapted to online banking services - they use them, like them, even demand them - but far too many banks are still struggling with how to integrate interactive banking into their other customer service channels. 'Until banks stop treating the Internet as a new, separate channel, run by a separate division within the company,' says David Hallerman, eMarketer, 'not only will they continue to lose money on the service, they will fail to take advantage of the cost-savings, customer-retention, cross-marketing & revenue-building opportunities the Internet offers.' No one agrees on exactly how many online banking customers there are, but everyone agrees that there are a lot. 'Counting how many customers bank online is an inexact art. First off, while a few banks that have strong Internet bases are willing to reveal their numbers, most other institutions are extremely close-mouthed about the topic. What's an online banking customer? Is it a customer who has ever banked online, or is it a customer who has banked online recently? Does it matter what the customer does online? If it's only checking balances, but no transactions, is that an online banking customer?' For eMarketer's count of US households banking online, the definitions include only those who've banked online recently, within the past 60 days. Any online banking action counts, even if it's not transactional (such as moving funds from one account to another). eMarketer estimates that 31.5m households are banking online this year, a figure which should rise to 45.0m by the end of 2007. 'While this year's growth rate for online banking is still considerable, at 17.5%, we're projecting a smaller rate of growth over the next 3 years, as more consumers add the channel to their banking experience.' Figures from 8 researchers for 2004 range from IDC's older projection of 24.0m at the low end to NFO's 36.0m, & Financial Insite's 37.0m at the high-end. While the absolute numbers may be difficult to gauge, the growth rates for online banking are more in line. For 2004, all estimates call for double-digit gains, & 6 of 8 researchers project growth rates between 11.5% (Celent) to 20% (NFO). The figures bear out a comment by Chris Musto: 'Online banking has gone mainstream.' To put all these customer counts into perspective, eMarketer has calculated the % of online banking households as a share of all US households & as a share of online households (eMarketer estimates). eMarketer projects that by 2006, 1/3 of all US households will be doing at least some portion of their banking on the Internet. There is no question that online banking is now a mainstream activity. The question is - can banks make it a strong revenue stream? **Figures that accompanied this article are appended.**

Online banking gains Canadians' interest 10/18 eMarketer A study by comScore MediaMetrix Canada finds that online banking is a widespread & growing industry. The number of Canadians banking online grew from 8.7m in 5/03 to 11.8m in 8/04, a 36% increase. 64% of all Internet users in the country have visited banking Web sites. HSBC experienced the greatest growth in the number of unique visitors with a change of 88.3% from 8/03 to 8/04. ING's visitor numbers expanded by a large relative margin, with a 55.4% growth in the 1-year period. Men make up a slightly higher % of visitors to bank Web sites than women, but the gender picture varies significantly by bank. 53.6% of ING Canada's visitors are male, while 52.9% of Scotiabank's visitors are female. The banks do vary greatly in terms of the income level of their visitors. ING & Royal Bank bring in 25% of their visitors from households with annual income over US\$100,000. TD only counts these more affluent households as 16.6% of their visitors. Historically, Canadian households have done more online banking than US households, & this pattern will continue in 2004. 43.7% of US online households will engage in online banking in 2004, a rate well below that of Canadian online households in 2003. **Figures that accompanied this article are appended.**

2 weeks too long without e-banking 11/16 AB Some people just cannot do without online banking. That was one of the findings in a study that asked volunteers to forgo the Web for 2 weeks. When told they could log on to the Web if they absolutely needed to, half the participants said they could not get through the full period without banking online. The study was conducted in June by Yahoo, which paid 13 households \$950 each to disconnect themselves from the Web for 14 days. They were permitted the emergency Internet visits (called lifelines) on the condition they keep a log documenting the circumstances. '70% of the lifelines that were used were for financial services purposes,' said Richard Kosinski Yahoo. Some could not even go 48 hours without e-banking; the first financial lifeline, a loan application, was documented just 2 days into the study. 9 households had to use their lifelines. Megan Crutchfield, a clinical research assistant in Portland OR, said that except for online banking, 'There wasn't any other reason that I felt like I needed to use a lifeline.' Ms. Crutchfield, 26, said she was a victim of identity theft in 2001 & has since made it a habit to check her bank balances daily. Last year she started banking with Washington Mutual, & began using its online banking service. In the study Crutchfield used the phone instead. 'I was actually calling every morning, which is how I was getting my balance, but it doesn't give enough information. 'They offer you the amount of the transaction, but they don't give you any additional details.' & using the phone was much slower, she said. Ms. Crutchfield's experience was typical. Many participants said they would rather skip banking altogether 'than go back to the old way of doing things.' For example, one of them used their lifeline to submit a student loan application electronically to avoiding paying to mail the form overnight. Other households used lifelines to pay bills, though Kosinski said at least one set up bill payments before the study began & scheduled them to be paid during the 2-week period. Sanjay Gupta, BofA, said BofA customers prefer online banking for the same reasons Crutchfield found she could not go without it - information is faster & easier to find. 'I'm not surprised' by the results, he said. Doug Marshall, Washington Mutual, said many customers consider the Web their primary banking channel. Penny Gillespie, Forrester, said that customers who have become accustomed to online banking may no longer have patience for other channels. That is not to say traditional channels, though they may be slower or otherwise flawed, are useless. People who have never banked online are probably happy using branches, call centers, & ATMs. 'You don't know what you're missing if you haven't tried it.'

Banking myths 11/1 BankDirector What's behind the ascendancy of aggressive retail banking? An approach that came only after some highly innovative & aggressive banks challenged some very old, strong, & enduring myths. All of us need truths to hang onto, strongly held beliefs that govern our activity & rule how we behave in our environment. We develop these beliefs by observing the world around us, and, over time, the most widely shared beliefs assume mythological proportions. They become ingrained, challenged by only the most inquiring & skeptical minds of the times. Classic myths developed over centuries, from times when the earliest inhabitants of the planet sought to explain natural phenomena. Why did the sun appear every day? Why did storms come? What happened after death? Business myths haven't had the ages to form, & banking myths have developed over an even shorter timespan. Yet develop they have, & over the brief 25 years since deregulation of the financial industry began, a set of beliefs arose, became gospel, & were honored in practice by the vast majority of American bankers. Now they are crumbling. **Myth Number 1 The 80/20 rule** No rule of thumb more completely runs across industries & businesses than the 80/20 Rule: Twenty percent of your customers will bring 80% of your profits, & that's pretty much true whether you're talking top line or bottom line. When you look at

who's doing business with you, a heavy percentage is done with a relatively small segment of your customers. There are few exceptions to this longstanding rule; if anything, it is conservative, with businesses often finding that 90% or more of their profits are provided by 10% or fewer of their customers. In the 1980s, a procession of business gurus popularized the 80/20 rule among bankers. Jack Whittle, a former Continental Bank marketing head & later a prominent consultant, chided bankers for treating the 80% of customers just as well as they treated the highly profitable 20%. Whittle promoted a philosophy that said, 'If it moves, price it' & ridiculed banks for giving away the store. S&Ls were held up as especially bad examples of businesses that paid far too little attention to the bottom line, while handing out cookies & setting up private lounges for profitable & unprofitable customers alike. Whittle urged banks to place high minimum-balance requirements for free checking & encouraged bankers to explicitly price services, going so far as to suggest fees for answering telephone inquiries & for providing elderly customers with assistance in balancing their checkbooks. If the result was to run off customers, so be it—these were customers the bank needed to lose, anyway. But there's a problem in this application of the 80/20 rule: It ignores the fact that fixed costs need to be spread over a large customer base; if the customer base of a retail bank shrinks, the fixed cost per customer grows. More critically, it ignores the very great potential 80% of customers have for using other mass-market financial services like auto loans, credit cards, home equity loans, & new products that banks are perfectly well qualified to design. Moreover, driving away customers runs totally counter to everything a community bank has historically stood for. Run off customers, & a bank is not only limiting its opportunity to sell new services to those customers, it is damaging its hard-earned reputation in the community. **Myth Number 2** *Internet banking, telephone banking, & ATMs will make branches obsolete.* ATMs started to come into their own in the '70s, when they were set up inside or immediately outside their banks' branch offices & were seen by banks largely as a way of saving money, by reducing the need for tellers. Soon there were a couple of thousand ATMs nationwide, & banks found the cost of processing deposits & withdrawals via ATMs proved to be less than the cost of training & employing tellers to do the same work. The numbers in subsequent years rose exponentially & by 2004, there were 383,000 ATMs in use in all manner of banks & retail outlets, according to Dove Consulting. Over the years, consultants weighed in on the trends: ATM usage was becoming widespread; young people didn't want to go into the bank; older users, who stayed away from ATMs in droves in the early days, were becoming true believers, using their ATM cards as enthusiastically & frequently as their children. At the same time, branches were becoming more costly to establish. Real estate was booming, & competing with fast-food franchises & oil companies for prime locations was putting costs through the roof. Bankers were worrying about winding up with a portfolio of unneeded branches. Why not instead bet on the coming technology & put ATMs on every corner, providing a level of convenience branches couldn't match? Following that logic, many banks slowed their branching strategy even as the legal barriers to widespread branching were tumbling down. As banks entered the '90s, the case for bricks & mortar looked ever weaker. Wouldn't people gravitate toward handling all their banking from a distance, paying their bills by phone or computer, & banking with an aggressive new Internet bank or the online service of their own bank? The numbers seemed to be bearing this out: In 1988 there were 86,000 banking locations—main offices & branches. By 1994, the number had shrunk to 81,000. But it now appears that was a short-term bump in the branching juggernaut. In fact, the last few years have seen a resurgence in branch banking. By 2001, the number of branches had bounced back to 86,000, & last year it had grown to nearly 89,000. The trend seems to be continuing. More impressive than the raw number is which banks are branching. It is the most vital of the banks that are making the biggest commitment to growing their branch structure. Bank of America announced in June that it would add 200 branches a year for the next three years. Though recent mortgage-related problems have slowed Washington Mutual's branching, it was opening 20 new branches a month through most of the past two years. Except where regulatory authorities require it, consolidating banks have pretty much stopped closing branches after the merger is complete. More often, they view branches as part & parcel of the bank's growth plan, the linchpin, in fact, of their deposit-gathering strategy. **Myth Number 3** *The checking account is a costly bank service—at worst, a drag on profits; at best, a loss leader.* When the Federal Reserve began publishing its functional cost analyses in the '50s, banks learned what it cost to provide a checking account, yet even so, some banks had a bedrock belief that checking accounts should be free, especially for seniors who were price-conscious & would seek out free checking elsewhere if their bank failed to offer it. Other banks had a dramatically different set of beliefs regarding checking accounts: They knew it was expensive to maintain a checking account—a belief supported by the functional cost analysis figures that usually showed it cost a bank in excess of \$6 a month to offer a checking account. Such banks responded either by placing a metered fee on checking ('dime a time' checking fees were common) or by placing a high-average or minimum-balance requirement on the account—'Checking with us is free, provided you keep \$1,000 in your account at all times during the month.' Both approaches failed to recognize a number of things about checking accounts. First, it is now clear that the checking account is the hub account for other services. Those banks that offered free checking (or free with a low minimum balance) until the mid-'90s often provided this explanation: We do it because free checking is a loss leader for other services. Implicit in that explanation is an understanding of the checking account as the hub service, but very few banks actually took advantage of this by aggressively selling other services to checking account holders. Second, it has become clear that free checking can move market share. Banks offering free checking, when first in the market to do so, were regularly chalking up double-digit growth, even in no-growth markets. Ralph Habersfeld, whose California-based consulting firm had been touting the benefits of free checking to community banks for years, was finding success in much larger banks, & in ever more competitive communities. When banks like Fifth Third & Washington Mutual made free checking the cornerstone of their move into new markets, bankers everywhere got the message. Third, the one major problem with free checking—the loss of service-charge revenue—is being overcome by offering customers an alternative to regular checking, a 'package' or 'club account.' Banks offering such a package, containing accidental death insurance & other services with a fee as high as \$8 or \$9 a month, have found that a high percentage of customers voluntarily choose such a package instead of the free account. As a result, banks are able to have the best of both worlds: a 'free' account that may prove successful in attracting customers from other banks, & a package that can more than make up for the fee revenue forfeited by going to free checking. Finally, the potential for fee income associated with checking accounts has grown dramatically. Initially, it was overdraft charges. For decades, the customer who overdraw his account balance received a stern letter from the bank, was tolerated for a while, & eventually was asked to move his account. As banks have raised their overdraft charges from \$2 per overdraft to \$20 & more, overdrafts have become a major profit center. & with the development of overdraft protection services, marketed aggressively by third-party vendors & developed internally by many banks, the desirability of building a huge base of checking account customers, even low-balance ones, has been heightened dramatically. In short, checking accounts moved from a necessary evil—when savings & loans first got checking powers many S&Ls chose not to offer them—to the primary vehicle by which dynamic banks are fueling their growth. **Myth Number 4** *Seniors won't move their accounts.* Banks for years have misunderstood the senior market. Until the '80s, banks usually offered seniors, typically defined as those 60 or 65 & older, free checking. & that was pretty much it. A few banks had senior 'clubs' that might take members on field trips now & then, but little more. Some banks viewed their seniors as a needy subgroup who clogged their lobbies 'when the eagle flies' (the day of the month when social security checks arrive), & thus provided the free account, because seniors needed the extra help. As banks more closely analyzed the profitability

of their accounts, it became clear that seniors were not only profitable customers, they were disproportionately responsible for bank profitability. They kept huge balances in both checking accounts & savings accounts. They were somewhat yield conscious—after all, they had for decades supported S&Ls because of a quarter percentage rate differential, hadn't they—but they weren't as yield-driven as bankers thought. They were, in fact, much more concerned with service & convenience than with rate. & contrary to the belief that seniors don't move accounts, when aggressive banks began offering package checking accounts specifically tailored to seniors, they moved their accounts. What's more, if the bank offered insurance & other benefits, seniors, to most everyone's surprise, would actually pay for new services. This misunderstanding of the mature market, so ingrained in the belief system of the industry for so long, is especially meaningful in teaching bankers not to take their customers for granted. Bank customers of all ages, it seems, are pretty much like customers of every other service business: Give them a better product, price it fairly, & they will make a conscious decision to switch providers if doing so is relatively painless. **Myth Number 5** S&Ls were stupid. Bankers, it must be said, have always secretly believed themselves superior to others of their species. After all, CUs couldn't help but succeed, what with all those tax breaks not afforded a commercial bank. & S&Ls? Well, the S&L sort of falls into the 'other competitor' category. Historically, the savings & loan was that sleepy institution on the corner that survived because it could pay a fraction of a percent more on regular savings accounts, & because it had a monopoly on home mortgages. Looking back, it's clear that the S&Ls were doing a lot of things right. As banks across the country are falling all over themselves to replicate Umpqua Bank's coffee bars & branded coffee, & as Wamu patents its 'system' of doing business with special areas dedicated to specific activities, it is useful to remember the heyday of S&Ls. That was when coffee & doughnuts & customer-focused services like checkbook balancing were the exclusive province of those laid-back S&Ls—financial institutions with some of the most loyal customer bases seen before or since. **Myth Number 6** Banking is different from other businesses. Bankers like to think their profession is different. & for most of the history of American banking, it has been different. While most professionals have long worked from 8 a.m. to 5 p.m., it wasn't long ago that banks were open from 9 a.m. to 2 p.m., and, with an hour or two for reconciling the day, it was the rare banker who wasn't home for the evening news, or maybe even squeezing in a late afternoon round of golf. Weekend hours were unheard of. White shirts & suits prevailed long after workplace fashions had changed in America. But in fact, the idea that banking is somehow different from other businesses retarded the development of the industry. Long after retailers were discovering that long hours of operation, weekend openings, & a generally customer-centric way of doing business separated the winners from the losers, bankers were still viewing their business as one that was immune to the competitive incursions of new players & to the demands of its customers. **Myth Number 7** Banking is a commodity business. Underlying all the myths above is the idea that banking has become a commodity business. This concept is death for a bank, because the logical extension of viewing banking as a commodity is to believe that price (for services) & rate (for deposits & loans) will prevail. The successful bank will be the low-cost provider. This is the easiest of myths to sell internally because it has a seductive logic to it: All we have to do is offer the highest yield on deposits & charge the lowest rate for loans & other services, & if we keep our expenses lower than anyone else, we'll do fine. Yet, look at the retail banks that are setting new standards. Decidedly, it is the banks that aren't viewing banking as a commodity business that are winning. Tom Brown, whose investment firm, Second Curve Capital, has long been a vocal supporter of Commerce Bank, did a quick survey in August of bank deposit rates in NY. Here's what he found: At a time when arguably the most aggressive of the deposit gatherers, Commerce Bank, was entering the most competitive market in the country, one would have expected to find cutthroat savings rates as the battering ram. Yet clearly, Commerce Bank wasn't buying deposits, as its critics had widely charged. Something else had to explain Commerce Bank's success in entering NY City, just as something else must explain Commerce Bank's 30% annual deposit growth rate since 1991. What about fees? Given the recent flight to free checking, doesn't this prove the banking-as-commodity argument? Yet here, too, a look at the better banks shows otherwise. Washington Mutual has been offering free checking for more than 10 years now, far longer than most of the big banks that have used that strategy to gain market share recently. Yet a close look at its customer base shows that while many of its customers may be attracted initially by a free checking account, they have in fact chosen an enhanced account that provides benefits beyond a free account. In exchange, these customers are paying a fee to the bank for the package that is significantly higher than even the service charge they would have had before the bank adopted free checking. Going down the list of bank services, the commodity concept fails on loans, as well. The fact is, businesses & individuals alike rarely shop for loans. Businesses tend to work with a bank & a loan officer they know, & individuals seldom shop for car loans or personal loans. & even in an environment of Lending Tree & other low-cost, out-for-bid mortgage opportunities, it is a traditional financial institution that still tends to end up with the bulk of the business. Once again, customers seem not to want a commodity product; they want their bank to enhance its service with longer hours & days of operation, to provide convenient branch access with knowledgeable employees available onsite, & to offer enhanced products for which they will willingly pay a premium. Myths die hard, though, in banking as elsewhere. There remain many banks in this country who still subscribe to some or all of these myths that have ruled for so long. But the number of such banks is dwindling. They are the banks that are selling out to join more aggressive franchises. Or they are the banks that are dying slowly, plodding along, losing market share, giving up their franchise value, & focusing on a bottom line that, at least for a while, can still satisfy the nonquestioning, nondemanding board. Meanwhile, a handful of savvy banks—often led by bankers who have cut their teeth at companies totally outside of the financial services industry—have been setting new standards. They've shattered the myths as they establish new ways of doing things in a very old industry.

Cards

Virtual debit card aims to combat online fraud 11/16 WSJ Consumers typically have been wary of using bank cards online. One bank's solution is to get rid of the cards. In an effort to ease customers' concerns about fraud & identity theft when shopping online, PNC has launched a new checking account with a 'virtual debit card.' In addition to a regular debit card that can be used at ATMs & in stores, the 'Digital Checking' account comes with an 'eSpend' card. The card is basically a piece of paper with an account number, expiration date & verification code for making purchases online, over the phone & by mail order. Customers can set a daily limit for their eSpend card (say \$1,000) & once that amount is spent, additional purchases won't be approved. PNC hopes the eSpend card will attract people who want to make purchases online with their debit card but are uncomfortable doing so for fear of making their bank account vulnerable to fraud. If an unauthorized person obtains a customer's eSpend number, only the specified daily limit could be taken out of a customer's bank account. If this occurs, PNC says customers aren't liable for the charges. Purchases made with the eSpend card show up separately on bank statements. The account, which is aimed at online-banking customers, comes with identity-theft reimbursement insurance, a debit card rewards program & no fee for using non-PNC ATMs. The account has a monthly \$11 service fee unless customers opt for direct deposit of paychecks or government checks such as Social Security, & pay at least three bills online. The eSpend card comes as debit cards are quickly overtaking cash & checks as preferred methods of payment. According to ABA & Dove, 31% of in-store purchases were made with a debit card last year, up from 21% in 1999. Consumers typically have been wary of using debit cards online because, unlike credit cards, they are directly tied to bank accounts. But online use of debit cards is starting to grow. In IQ 2004, Visa debit cards

were used for 46% of online purchases, up from 43% a year earlier, according to Visa. Analysts are skeptical about how excited consumers will be about PNC's new card. 'I think it's an interesting idea but if you look at consumer usage, consumers are using their debit cards online today in increasing numbers, so it's unclear how much of a demand there would be for a card with that unique application,' says Tony Hayes, Dove. Other banks have long offered similar credit-card products as a way to encourage purchases on the Internet & reduce the amount of fraud they are liable for. In 6/02, Citibank launched free, downloadable software that allows credit-card customers to obtain a new disposable account number each time they make a purchase online. A downside: Such 'virtual account numbers' can't be used when a credit card must be shown at pickup.

Debit cards are the new cash, especially for younger buyers 11/16 *LexingtonHeraldLeader* When Palmerin Perez goes shopping, she will not leave home without it, but it is not the American Express card. Perez takes her debit card to pay for everything she buys, including the sweater she bought Wednesday at Westfield MainPlace mall in Santa Ana CA. She cannot imagine paying any other way. 'It takes (the money) directly out of my checking account,' said Perez, 30, of Union City NJ, who is visiting in Orange County CA. 'I never have to worry about credit.' Perez is one of millions of Americans, especially younger consumers, who increasingly favor debit cards over other forms of payment. A Harris/Visa Poll showed that when it comes to buying a sweater or jeans, nearly half of the 1,562 people surveyed said they were most likely to use debit cards. Among 18- to 34-year-olds, 54% said they would use debit cards. 'That's what we're seeing across the board,' said Seth Eisen, Visa. 'More people are using debit cards for purchases.' Debit cards electronically deduct money directly from checking accounts. Because of their convenience & widespread acceptance by merchants, debit cards are rapidly becoming the new cash. In fact, for the first time last year, cash & checks accounted for less than half the payments - 47% - for in-store purchases, according to ABA & Dove. 5 years ago, they made up 57%. During the same period, debit-card transactions increased from 21% 5 years ago to 31% as of last year. Gerri Detweiler, Ultimate Credit Solutions, said consumers need to watch out for pitfalls when using debit cards. 'The biggest thing is that if you're a victim of fraud, how fast do I get my money back into my account?' said Detweiler, who worked on a debit-card project with BofA last year. Consumers should monitor their accounts closely for any unauthorized transactions, she said. If your card is lost or stolen, you might be liable for the first \$50 in losses. With the Visa check card, there is no liability.

Credit card firms face one cold foe: hard cash 11/12 *JapanTimes* One credit card offers miles & points for clothes purchases. Another beckons with travel insurance & discounts at movie theaters & fancy restaurants. You'd think they would be competing against each other, but card companies must first battle a common enemy. 'Cash. We have to beat cash,' said Mitsuhiro Ohshima, manager of public affairs at American Express International Inc. (Japan). In fiscal 2003, Japanese consumers used credit cards for shopping & taking out cash to the tune of 20.7 trillion yen, up 5.5% from the previous year, according to the Japan Consumer Credit Industry Association. But the number, an estimate that has grown for nine years running, represents less than 7% of all purchases. In the United States, credit cards are used for 25% of all purchases. Japan's credit card use is on par with Germany's. Card companies are betting that the market is set to grow. Some, like Sumitomo Mitsui Card Co. & JCB, are targeting citizens aged 60 & above, who have an average 23.6m yen in savings, seven times that of a worker under 30 years old, according to the Internal Affairs & Communications Ministry. Sumitomo Mitsui offers 10% discounts on 10-day luxury cruises for seniors using their card. Senior JCB users get priority on golf reservations at JCB partner retirement homes, where they can use credit cards to make payments on everything from medical bills to vending machine snacks. The advantage of cards over cash includes buyers' protection against theft & fraud, Ohshima claimed. Credit cards can cut costs for small businesses, by doing away with large amounts of change they need on hand for cash transactions. 'There's so much room to grow, once people realize the merits of credit over cash, in terms of safety & convenience.' Yugo Tanaka, a 55-year-old owner of a restaurant serving 'soba' buckwheat noodles in downtown Utsunomiya, Tochigi Prefecture, disagrees. Each time a customer uses a credit card, a store owner could wait up to 30 days to get the cash, as most card companies pay store owners only once a month. 'That's just not an option, when you're behind on payments for wasabi supplies.'

Other

Disrupted sleep causes worker burnout 11/16 *NewScientist.com* Worker burnout is triggered by a drastic re-setting of sleep patterns, rather than high levels of stress per se, according to a study of patients in Sweden. A new treatment based partly on these findings is among the first to show clear success, researchers say. Burnout is not recognised in the classic manuals of mental health disorders. But the main symptoms are taken to be long-term, excessive fatigue & cognitive impairment. 'It usually affects people who are very committed to work. One day they wake up & they just can't get out of bed. Then they take a few weeks' sick leave, but they don't improve,' says Torbjörn Åkerstedt, Karolinska Institute in Sweden. While stress is involved, the precise causes of the symptoms have been unclear. A high level of the stress hormone cortisol has been blamed, for instance. But based on his team's recent work: 'We think that people can function quite well on high levels of stress - it's only when their sleep is disrupted that you get burnout.' The team took regular sleep EEG readings of 35 patients who had been off work for a minimum of 3 months. The tests consistently showed extreme sleep fragmentation & disruption. These patients were living on as little as 4 or 5 hours of sleep each night, with a 40% reduction in slow-wave sleep compared with healthy people. Åkerstedt's team believes that long-term stress & worry about work can cause people to settle into this disrupted sleep pattern. Once this pattern is established, it takes more than just rest & relaxation to re-establish the individual's pre-burnout sleep cycles. 'If you experience stress for a long period of time, you establish a new high baseline level of physiological activation - & this interferes with sleep.' Increased workplace demands are driving an increase in cases of burnout, the team suggests. In Sweden, Åkerstedt estimates that long-term sick leave due to the problem doubled between 1994 & 2001. Only a few % of people with burnout usually return to work. But the stress clinic at the Karolinska Hospital has been trying a form of treatment that combines strict sleep hygiene rules with cognitive behavioural therapy, which aims to change the patient's views about their need for achievement and thereby reduce work-related stress. 'After 6 - 12 months, we find significant improvements in sleep duration, & 60% of patients returning to work.' But to prevent burnout in the first place, you need to know who is most susceptible & why, says Peter Cotton, an organisational psychologist who advises the Australian government on workplace mental health. 'The strongest predictor of burnout is personality. People who score high on scales of emotionality experience more distress as a result of workplace pressures. That interaction is very important.'
