

Financial Services Clipsheet
July 26, 2005**Check 21**

Kodak & Check-21 7/26 *Businesswire* In the business world, cash is king. & the faster that checks are converted to cash, the more competitive the business. With this in mind, Eastman Kodak document imaging business launched a suite of hardware, software, & professional services to help banks, businesses, & federal, state & local government offices more easily & quickly process checks, leading to accelerated clearance & payment. Kodak's solution revolves around the conversion of paper checks to digital images at the point of check presentment. The new offerings, which include the Kodak i6030 Check Scanner, image capture & transmission software, & a host of support services, capitalize on the benefits of Check-21. Known as Check-21, the federal legislation removes the barriers to electronic check processing, setting the stage for checks to clear-and money to be moved-in a matter of hours instead of days. Celent estimates that bank adoption of point-of-presentment check image capture systems will grow by 82% annually each of the next 3 years, with adoption by businesses & government offices rising 40% - 60% annually. Banks; middle-market companies with revenues between \$5m & \$1b; & government offices, especially at the state & local levels, are target customers for Kodak's portfolio. Kodak's portfolio of products & services enable high-quality digital images of paper checks to be captured at the point of presentment-for example, when a customer gives a check to a bank teller, when a county resident purchases a marriage license or duplicate birth certificate in a clerk's office, or when a small business owner stocks up at an office supply store. The checks can either be scanned by the teller, government clerk, or cashier or by back-office employees at the branch, office, or store level who oversee the preparation of the day's checks & other payment-related documents. A key benefit of check capture at the point of presentment is that checks clear faster-same-day clearance rather than 2 - 5 days with paper checks. Banks, businesses, & government offices can realize decreased operational costs through a reduction in the need for labor-intensive services, such as the transportation of checks & deposits from one location to another. Other benefits include the expedited collection of returned checks & the ability to more quickly identify fraud. For banks, customer service is enhanced through fewer disputes, greater accuracy, & gains in efficient cash-drawer balancing. 'Kodak is the world leader in imaging, & we have 75 years experience in helping businesses deploy imaging solutions, beginning with a commercial camera & microfilm that George Eastman designed to help a NY banker take pictures of checks,' said Andy Lawrence, Kodak. 'For the past 15 years, Kodak has been an industry leader in digital document scanning for businesses & government offices of all sizes. We are now marrying our financial services heritage with our digital innovation to bring a new offering that fulfills crucial business & government needs.' Kodak's portfolio includes: A scanner that converts paper checks into high-quality digital images. The Kodak i6030 Check Scanner is designed for use in environments such as bank branch teller lines, local government offices, retail stores, or back-office locations at the branch, office, or store level. The i6030 will enable tellers, clerks, cashiers, or back-office personnel to scan up to 40 checks per minute, in accordance with industry standards. The 5.1-inch-by-11-inch scanner can be equipped with a pre-scan imprinter that prints document control numbers or other custom information onto the paper checks. The scanner has a list price of \$1,895 with imprinter. Software programs, developed in with Wausau, that manage the capture of images & the secure transmission of them via the Internet & IT networks. The Kodak t6000 Client Software for Transaction Applications manages the capture of check images-either with the i6030 Check Scanner or other devices-and then transmits extracted data & digital images securely via the Internet to either the Kodak t6000 Server Software for Corporate Transaction Centers or Kodak t6000 Server Software for Financial Transaction Centers. The software then aggregates & routes the data & images to banks, 3rd party clearinghouses. Software pricing is dependent on the volume of checks to be processed & specific application requirements. Professional services that support the smooth delivery of the product into a customer's environment-including site inspections, installation of hardware & software, consulting services, software customization, & product training. The portfolio of hardware, software, & professional services will be available beginning in September. Kodak plans to sell the solutions portfolio via a select group of its reseller channel partners that have a proven track record of delivering enterprise solutions in target markets. Kodak's team of professionals will work with reseller partners to identify sales leads, complete sales, & provision products & services.

Check 21, ARC and Payments

Payments in transition: where have all the changes gone? 7/25 *gtnews* The uptake of new & improved payments products has been much slower than anticipated. Paper-based manual payments systems are still prevalent & most banks are still using payments platforms & architectures that had their genesis in the 1960s & 70s. Given the broad spread acceptance of personal computers & Internet communication, the question becomes why has the payments industry been so slow to change? For many years, pundits have been predicting the dawn of a cashless & checkless world & the demise of traditional transaction methods. In the US specifically, the 'death of the check' has been heralded & discussed for at least the last 30 years. The reality is, however, that the uptake of new & improved payments products has been much slower than anticipated. Paper-based manual payments systems are still prevalent & most banks are still using payments platforms & architectures that had their genesis in the 1960s & 70s. Given the broad spread acceptance of personal computers & Internet communication, the question becomes why has the payments industry been so slow to change? By their nature, financial institutions are inherently conservative & risk averse. Barring regulatory demand, change usually takes place very slowly, almost coming to a complete halt without some strong motivation. The typical drivers for change in banking tend to be cost control or efficiency, customer demand (revenue pressure), & risk control. While each of these areas can be affected by transformation of payments systems, the overall impact of these drivers has been less than impressive, in terms of mandating change. The foundations of much of the current payments system infrastructure have been in place since the 1960s. As business & consumer demand for financial transactions increased in a post-WWII era the public & private sectors, in the form of banks & central banks, joined together to create an incredibly large & sophisticated infrastructure to manage the flow of paper-based transactions, primarily checks. As volumes grew, existing processes were automated to improve efficiency & entire businesses grew up around meeting the needs of the check-processing industry. The end result has been the creation of a large base of fixed costs dedicated to processing manual transactions. Electronic transactions are arguably more cost effective than corresponding paper-based ones, on a per transaction basis. However, when the costs of supporting the existing infrastructure are included, the business case for change becomes questionable. As will be discussed later, this situation is exacerbated by the fact that few banks look at payments holistically. Most banks operate in silos & have created separate operational entities for paper & electronic payments. This makes it difficult to determine the overall economic impact of changes in transaction patterns & results in continued investment in existing systems that have already reached scale economy, rather than investing in newer unproven payments vehicles & platforms. This situation is changing as maintenance costs for ageing payments platforms increases. But at the moment, banks tend to be more focused on increasing the cost efficiency of their existing payments

products rather than making extensive investments in new systems. The economic situation is complicated by the surprising lack of customer demand for newer payments products. Consumers have been very slow to move from paper to electronic payments. Despite a variety of marketing campaigns by banks, retailers, & trade associations, it has only been in the last year that the volume of retail electronic payments, primarily card & ACH, has equalled that of the paper-based market in the US. Businesses have been even slower to change their payment habits. Trade organizations, such as AFP, have made it very clear that checks are the preferred method of payment, at least from the disbursement side of the house. This lack of demand has made it difficult for banks to justify huge investments in new payments infrastructure. Faced with taking the risk that 'if you build it, they will come,' banks have again focused on improving the overall efficiency of traditional payments platforms, & only making limited investments in newer systems. The third potential driver of change is risk control. This can be looked at from several points of view. Firstly, it is the issue of transactional risk control. Banks & corporations have spent significant time & money developing technology & processes to control & manage the risk of check fraud. Although check fraud is a growing concern for most banks & many corporations, few consumers see check fraud as a major issue. By comparison, both banks & consumers are increasingly concerned about credit & debit card fraud. Banks have spent large amounts of time & money developing ways to control the risk of card fraud, but losses continue to climb & consumers' fears, largely due to growing concern about identity theft, continue to increase. As a result, at least for the moment, transactional risk does not seem to be an adequate reason to radically change payments systems. The second point of view is that of operational risk. The increasing cost of maintaining existing payments platforms may be an incentive to move towards newer & more efficient platforms. As previously mentioned, much of the existing payments infrastructure has been in place for 30-40 years. Although the systems & technology have been updated & modified over time, their overall complexity & the related cost of maintenance continues to grow. Despite the increasing cost, however, the existing systems do work, & as the old adage says 'if it ain't broke, don't fix it.' While the drivers for change may be mixed, barriers preventing it are significant. Here again we can look at risk, revenue or customer demand, & cost efficiency. In each case, there are factors that create potential barriers to any change barring absolute necessity. Payments are a core function for financial institutions. Various studies have indicated that payments account for 30-40% of total net banking revenue. Understandably, most banks are hesitant to make major changes to core systems in a big bang approach when so much of their revenue is at stake. The risk of potential failure is just too high. Unfortunately, the same complexity & age of existing systems that increases maintenance costs also makes it difficult to make significant changes incrementally. As a result, major changes in existing systems tend to be deferred if at all possible. Although referred to earlier as surprising, the lack of customer demand for new & improved payments systems is actually not that surprising at all. Most consumers tend to resist change unless there is some strong incentive to make the change. In the case of payments, one might expect this to be an economic incentive, given that electronic payments should be cheaper & more convenient than the corresponding check-based ones. While this might be a true statement on an all-in cost basis, most customers, whether consumers or corporations, do not see it this way, mainly because there is lack of transparency in payments processing costs in the banking industry. Very few bank customers see the actual cost of check writing as a disbursement method. Rather than charging transaction fees, most banks recover their costs through a combination of float & exception item service charges for check writers & deposit charges levied on commercial customers. In fact, many US banks have extensive ad campaigns around variations on the theme of totally free checking. Even for commercial customers, the per-transaction or 'penny price' for individual checks is rarely equal to its true cost. This apparent subsidy of check writing by the banking industry provides customers a strong incentive to stay with their traditional habits of writing checks, while check receivers bury their costs in the prices that they charge the end-users. This lack of transparency is also an issue within most banks. As previously mentioned, most banks are highly siloed when it comes to payments platforms. Very few banks have the ability to look at payments as a whole & have difficulty apportioning costs & revenues across various payment channels & platforms. As a result, decisions are often made based on an incomplete understanding of the impact of change on all payments products. While free checking may be viewed as a needed prerequisite to maintaining demand account balances, electronic transactions are fully charged, resulting in an added customer disincentive to change. Additionally, investment decisions are often made based upon the relative size & importance of the payment channel, rather than on the long-term strategic interests of the financial institution. This tends to favor existing payments systems & platforms that have already developed scale volume. Finally, from a cost efficiency point of view, payments processing is a highly complex network system. This is especially true in the US, since there are a large number of financial institutions that clear payments. In large systems of this type, participants are highly dependent upon the actions of other network participants. One bank cannot change to a more efficient method of processing payments unless a significant number of the other participants make a similar change. As a result, in a variation on the traditional concept of 'The Prisoner's Dilemma' in gaming theory, the network tends to suboptimize & discourage change. Since everyone can process checks, we continue to process them & there is little movement towards more efficient payment methods. While the economic transparency of our various payments systems is unlikely to improve any time soon, end-users are finding other reasons to demand incremental, if not overnight, change. Decades of such incremental changes have already had significant effects on both check & electronic payments systems. Over time, we have gradually built an electronic infrastructure that can effectively parallel existing paper-based systems. The increasing age of the existing systems will eventually force a transition as maintenance & operating costs continue to increase. Regulatory issues, such as Check-21 in the US, image processing mandates in parts of AsiaPac, & pricing harmonization in the EU, will only accelerate the rate of change. We may never see a totally cashless & checkless society, but the transition to more integrated & automated payments systems is happening. Rather than the revolution in payments that was once predicted, we are in the midst of an evolution, a slow sea change that will occur without most of us ever realizing that there has even been a change. How we get there is perhaps not as important as the fact that we will eventually get there. & by then, the pundits will be predicting even more radical changes.

Company News

AFS remote capture solution 7/22 AFS Advanced Financial Solutions announced AFS Direct POS, an approved cashiering solution with check image capture that enables remote check deposit from the POS. This provides retail merchants with multiple benefits, ranging from fewer trips to the bank, improved cashflow, & a shortened collection cycle that narrows the window for check fraud with faster authentication & earlier notification of questionable or fraudulent items. AFS Direct POS provides retail merchants with the ability to scan, capture & send check payments directly from the POS, as they occur, throughout the day. Returned or NSF checks are identified in hours, rather than days, providing retail merchants with the ability to re-present these items quickly, with a higher % of collection. 'AFS Direct POS provides retail merchants with a viable & affordable electronic payments solution that can eliminate the need to physically deliver & deposit checks at financial institutions,' said Gary Nelson, AFS. 'Our solution helps retail merchants optimize their image capture processes by increasing revenue, decreasing costs, & improving operational efficiencies, which can eliminate the expense, risk, & limitations of traditional deposit methods.'

BancTec remittance processing solution 7/22 Businesswire BancTec announces the release of PayCourier 5.0 which streamlines & automates payment processing, increases productivity & significantly lowers costs. The new PayCourier 5.0 supports a hub-and-spoke architecture that offers clients distributed processing, advanced exception processing & superior security for sensitive information. These new capabilities make it possible to efficiently distribute work across multiple job sites & to manage work between different time zones, work-shifts & volume fluctuations. 'Our introduction of PayCourier 5.0 addresses our clients' need for centralized management of distributed operations & enhanced security so that images can be safely captured & keyed anywhere in the world,' said Mark Fairchild, BancTec. 'BancTec continues its strong commitment to developing solutions for the payments market by focusing on operational flexibility & automation to reduce labor costs.' The new operations dashboard component monitors peripheral devices & transports along with ICR, providing real-time alerts that allow users to quickly identify & resolve potential & unexpected problems in the processing infrastructure. 'Rope-and-Zone' technology & document template memory reduce exception processing for content validation & data capture of documents accompanying payment streams. PayCourier 5.0 interfaces seamlessly with a wide variety of scanners & transports to offer clients robust, scalable solutions for diverse remittance processing environments. These include the DocuScan & the F-Series scanners offered by BancTec, & Opex AS3600 & other scanners. Integrating PayCourier with low-volume scanners, such as the new BancTec F-Series, addresses the growing need for processors with distributed branch capture or stand-alone environments. A rich GUI, support for existing ARC interface packages, & forward image presentment for Check-21 Electronic Cash Exchange all make PayCourier 5.0 a competitive tool for clients in a variety of industries who must process a wide range of volumes.

CardSystems to Congress: we face disolution 7/21 CIO-Insight Despite a stream of reported data thefts this year-most recently by CardSystems Solutions-members of Congress are unable to agree on how to combat the growing threat to consumer privacy. The roster of divergent potential solutions grew again Thursday. 'We need to do everything possible to ensure that our personal information remains privileged & protected when we make any financial transaction,' said Rep. Sue Kelley, R-NY, chair of the financial services committee's Subcommittee on Oversight & Investigation, which held a hearing Thursday to examine the CardSystems incident. But some members remain reluctant to impose any new regulations at all, contending that the market will compel security improvements. 'Government intervention may hurt,' said Rep. Patrick McHenry, R-NC. 'If the market is going to deal with this, let's monitor it, let's watch it.' The market responded swiftly last week to the CardSystems disclosure; AmEx & Visa canceled their contracts with the Atlanta-based credit card processing company. As of Thursday, Mastercard, which had 68,000 accounts compromised in the breach, has given CardSystems until 8/31 to comply with its data security requirements, according to Joshua Peirez, Mastercard. John Perry, CardSystems, told members of Congress that his company faces 'imminent extinction' if the credit card companies do not reconsider their decisions to cancel the contracts. 'CardSystems is being driven out of business,' Perry said at a hearing before the House Committee on Financial Services, adding that hundreds of merchants will be left in the lurch if the company closes. Visa, which had 22m card numbers put at risk in the CardSystems breach, agreed to meet & discuss the situation with CardSystems. Within the House Financial Services Committee alone, 3 separate data protection bills have been introduced, including 2 similar measures launched last week. Among the proposals are security requirements that resemble the safeguards imposed under GLBA. CardSystems was not supposed to store data that could be used to identify individuals, & therefore was not subject to GLBA requirements. But the company did hold that type of data. All of the pending bills address the breached entity's responsibility to notify consumers of risk, but they differ in how much risk should be required before notification is required. Some seek to mirror California's data-breach notification law, which exempts companies that encrypt their data. Another difference in the pending bills centers on whether federal legislation should pre-empt state laws, a provision which data holders are pressing for. Asked by Rep. Arthur Davis, D-AL, whether a federal ID theft law should pre-empt a state's general breach of contract or tort laws not specific to data theft, Visa's Ruwa said yes. 'Visa would support a national-level approach'.

Carreker & US Billing 7/25 PRNewswire US Billing, one of the largest third party processors of remittances for non-profit organizations & other corporate & community entities, has licensed Carreker's NeXGen Remittance payments processing platform. NeXGen Remittance allows US Billing to streamline operations & automate its manual remittance processes. NeXGen Remittance, which uses advanced image workflow & character recognition technologies to process retail, wholesale, & exception payments on a single integrated platform, offers small to medium-sized institutions & companies a range of functional capabilities that have traditionally been limited to the large bank domain. The solution supports a wide array of low-speed to high-speed check capture devices, provides customizable retail & wholesale remittance processing capabilities, incorporates Carreker's best of breed image recognition & quality inspection tools, & offers the latest payment clearing options which include ACH & ARC, image exchange & paper cashletters. US Billing processes & mails millions of customer statements for some of North America's most recognized organizations. They provide lockbox services to these same organizations, processing millions of lockbox payments annually. 'We have several hundred customers, all with different banking relationships. So our requirements were unique - we needed an advanced remittance processing solution that would allow us to endorse each of our customers' checks with the routing number of the bank at which they would be deposited,' said John Bernhoft, US Billing. 'In addition to providing us with this capability, Carreker's NeXGen remittance solution allows us to completely automate our remittance environment, which was previously a manual, labor intensive process. NeXGen remittance provides us with a scalable & configurable solution that will allow us to easily add new customers in a matter of hours. The solution will allow us to easily transition our operations as we convert check payments into ARC.' John Carreker said, 'US Billing has built its business by offering superior processing services to a very niche customer base. Our image-enabled, cost effective NeXGen Remittance solution allows them to offer their customers an even higher level of service through improved processing efficiency & increased accuracy.' With NeXGen Remittance, US Billing can successfully compete with the increasingly commoditized remittance offerings that have traditionally been offered by large & mid-sized banks. The solution is designed to be highly scalable, supporting daily volumes ranging from 1,000,000 transactions to just a few for high-value customers who depend on high-end remittance capabilities for low volumes. Denny Carreker said, 'As imaging & electrification continue to become more prevalent in the payments industry, non-banks & banks are looking for proven solutions providers who can help them maximize productivity, reduce costs & expand revenue opportunities. We're delighted that US Billing has chosen our NeXGen Remittance solution to help them with their processing needs as they transition into an image-enabled & ACH environment.'

ChoicePoint data scandal costs \$11m 7/21 CMP-TechWeb Data broker ChoicePoint took a \$6m charge in its IIQ to cover additional costs for selling 145,000 records to scam artists. The \$6m is in addition to \$5.4m that the company counted as costs in IQ. Of the total \$11.4m in direct

costs for the mistake, ChoicePoint said \$2m was spent informing Americans whose data was sold, & the credit reports & credit monitoring services for those individuals. The remaining \$9.4m was pegged for legal & other professional expenses, the Alpharetta GA broker revealed in its IIQ financials. Derek Smith, ChoicePoint, only obliquely referenced the gaffe. 'We implemented key changes that reduced the risk of our business model & reinforced our leadership as a responsible information company.' In February, ChoicePoint announced that fraud artists posing as legitimate businesspeople purchased tens of thousands of consumers' names, addresses, Social Security numbers & credit reports in 10/04. It wasn't the first time the company had been tapped by thieves. In March, Nigerian scam artists obtained 7,000 to 10,000 records in 2002, which led them to a \$1m fraud bonanza. Most efforts to pass a national data breach disclosure bill based on the California state law that required ChoicePoint to notify affected consumers can be traced directly to the scandal. Last week, a group of prominent members of the US Senate introduced the 10th data privacy protection bill since ChoicePoint went public with the problem. Other companies involved in data losses are getting flogged financially. Visa & AmEx announced they had stopped doing business with CardSystems, a credit card processing firm whose database was hacked. The thief made off with 40m credit & debit card records. 'Not since CFS Railroad let their CIO, CISO, & CSO go has there been such a dramatic repercussion from a security incident,' said Richard Stiennon, Webroot. 'That case was a result of not taking industry best practice protection against a widely predicted threat: MSBlast attacking the RPC DCOM vulnerability in Windows. 'AmEx delivered what has to be the death blow to CardSystems. Lesson learned: Bad security equals go out of business.'

CTS North America new products 7/24 CTS introduces Camilla all-in-one teller scanner, which manages checks, payment slips, plastic cards, passport & other documents up to B/A4 size, & includes a front monochrome thermal printer with multiple lines & graphic capabilities. CTS products include the LS800 mid/high processing scanner, now in production, featuring a speed of 200 dpm, 500 document feeder capacity & multi-bin sorting capabilities, & the LS515HS back counter/back office scanner, the workhorse of our line, with improved performance allowing a speed of 120 dpm & 2 bin on-the-run sorting capabilities. 'These new products show CTS's renewed commitment to development & innovation in the banking peripheral market, based on its long experience & knowledge in image capture technology' said Alex Trombetta, CTS North America 'I'm confident that Camilla & LS800 will be further examples of how CTS consolidates its leadership position by continuously improving & broadening its product portfolio to satisfy emerging requirements.' CTS will have on display the SB & LS fully scalable families of scanners, providing high level of quality & reliability for remittance, teller & back office branch capture, corporate clients & self-service integration applications.

Fed, BofA hard-pressed to explain lost checks 7/21 *CharlotteObserver* Somehow, the checks disappeared. Several thousand checks were lost in transit 2/23 between the Baltimore office of FRB Richmond & a Baltimore office of BofA. The checks, written by BofA customers, had arrived at the Fed from the other banks where they had been deposited. They were on the way to BofA so the company would withdraw the proper sums from the accounts of the people who wrote the checks. But the bank called the Fed on March 10 to say the checks had never arrived. Unlike a string of recent losses of customer data by BofA & other financial institutions, the loss of the checks should not endanger customer privacy. But so many customers were inconvenienced that the Fed received calls for months. In an unusual move, Richmond FRB released a letter Monday describing the situation to banks. BofA & Fed say they don't know what went wrong. They say a BofA courier signed for a package that should have contained the checks. Both say they're working to fix the problem, in some cases by finding electronic images of the missing checks so BofA can send the proper sum to another bank. 5 months later, some of the people who cashed those checks are still waiting to see the money in their accounts. 'It's dragging on a little longer than we hoped,' Jack Turnbull, FRB Richmond, said. A Fed spokeswoman said she did not know how many transactions remained incomplete. BofA said: 'We're aware of the issue & we've been working with the Fed to determine what & how it happened & to ensure that it is fully resolved. We do not believe any of our customers were impacted.' BofA & many other banks keep an account with the Fed. When a check written by a BofA customer is deposited at another bank, the 2nd bank sends the check to the Fed, & the Fed credits the bank with money from BofA's account. The check is then sent to BofA, which withdraws the funds from the account of the customer who wrote the check. There are 40b checks written each year, & 1/4 are handled by the Fed. The rest are written & deposited by customers of the same bank or transferred through private services. While losing checks in transit is very rare, the problem highlights the importance of the industry's move to processing checks electronically, said John Hall, ABA. Since October, federal law allows banks to send images of checks electronically instead of sending the checks themselves. Only a small share of checks now travel through the system, but the number is expected to grow steadily over the next 3 - 5 years. 'Then there wouldn't be the need for actually moving these paper checks.'

Fiserv, Moneris & merchant payment solutions 7/25 *Businesswire* Fiserv's ITI unit & Moneris Solutions will offer payment processing solutions that help build merchant portfolio profitability for financial institutions. This agreement between ITI & Moneris Solutions, one of North America's largest electronic transaction processors, enables bankers to control payment processing for their business customers while outsourcing backroom functions & credit review. 'As the use of credit & debit cards continues to rise & cash & check usage declines, more bankers are looking to the merchant acquiring industry as a valuable revenue-generating opportunity,' said Kim Killingsworth, ITI. 'By integrating Moneris Solutions software into our Premier e-commerce suite, our clients are better-equipped to keep pace with these payment changes while building revenue-generating merchant portfolios.' Moneris offers financial institutions the opportunity to brand their merchant services offerings & choose the specific applications, payment methods & back-office functions they require. Advanced POS technologies, wireless payment processing & electronic bill payment are among the products & services institutions can provide their business customers, which can then use these services with their own clientele at the point of sale. Program options range from fully outsourced to full-liability. 'We appreciate the opportunity to join forces with ITI & provide their clients with a highly differentiated business model,' said Larry Wine, Moneris Solutions, US Group. 'Bankers recognize the need for a truly dynamic merchant services strategy, & we're able to help their organizations develop programs that drive new customer acquisition & cross-selling opportunities.' Moneris works through financial institutions 'without creating competition for their existing customer base. Like ITI, we've been successful at establishing long-term client partnerships.'

Moneris looks to big growth with internet debit payments 7/17 *DTN* The introduction in Canada of a bank-sponsored commercial payment service allowing consumers to buy goods from e-commerce merchants with their PIN debit cards is sparking widespread interest among retailers, according to Moneris, the first processor to handle transactions for Interac Online. Moneris has been processing Interac Online payments in a pilot for DVDsoon.com & has signed agreements with Source-By-Circuit City & CompuSmart, Web-based sellers of computer gear. More merchants are lining up in the pipeline. 'There's a ton of excitement in the merchant community. We've taken a lot of calls from merchants wanting to get on the

service.' Moneris plans to market Interac Online to its existing base of merchants with e-commerce units that process credit card transactions through the company. It estimates the new Internet payment service, when fully commercialized, could add another 1 - 2 % points to an existing 3% - 4% growth rate in online transaction-volume growth, without projecting volume numbers. In part, this is because the service appeals to consumers who can't or won't use credit cards on the Web. 'It opens the door to people who don't purchase online otherwise.' Interac Online is backed by Interac, the Canadian PIN debit network, & its members, which include the nation's major banks. These include Royal Bank of Canada & Bank of Montreal, the owners of Moneris. 6 big banks control most PIN debit accounts in Canada, & the banks are in the process of enabling their cardholders' accounts to handle the new payments. The service, which has been in development for several years under the name iDebit, relies on technology that switches consumers from Internet retailers' checkout screens to specialized versions of their banks' online-banking services for authentication & authorization of transactions. The banking screens are automatically populated with data from the transactions the cardholders are trying to consummate. Consumers use the screens to pay from their checking accounts & then are redirected to the Web merchants' sites. Unlike Interac transactions at POS, which carry a fixed fee, Interac Online charges acquirers a %-based fee of 1.5%, according to Moneris. Interac stresses merchant fees are determined by negotiation between acquirers & merchants. As with PIN debit at the POS, merchants receive guaranteed funds, with next-day settlement. PIN debit is much more popular in Canada, where signature-based debit has not been introduced, than in the US. A survey showed 1/2 of Canadians favored debit for payments between \$25 & \$75. In response to this popularity, & because debit carries lower acceptance costs to merchants than credit cards, a number of non-bank startups have emerged in Canada to process Web transactions that debit payments from consumers' checking accounts. These include UseMyBank Services, Toronto, which began operations in 2002, & Montreal-based Othentik Technologies, whose technology helps facilitate transactions in a manner similar to that of Interac Online. In the US, NACHA is working on a similar service, provisionally referred to as 'credit push.'

Open Scan lockbox module for exceptions processing 7/25 Businesswire Open Scan Technologies announced an innovative lockbox module to optimize exceptions payment processing. The new technology delivers the highest level of data capture accuracy, provides an interface for web-based client set up & is compatible with any existing lockbox environment. 'Processing non-standard payment transactions is a challenge for traditional wholesale lockbox software. Until now, exceptions were either processed manually at an extensive cost or were returned to the client. Our new module is designed to easily augment any existing lockbox software creating a beneficial ROI for the lockbox operator.' Open Scan's lockbox module can import electronic check & remittance images directly from any hardware or application source. Data is automatically captured, validated & balanced, then delivered back to the main lockbox workflow in a variety of formats, including XML. The solution can capture machine print, hand-print, checked boxes, bar codes, & scanlines, support ARC & Check-21 & is suited for complex reoccurring payments. With Open Scan, once a template structure is created, reoccurring payments will never require an operator to review them again even if there are changes in the payments from month to month.

Panini & First Horizon 7/26 Businesswire Panini North America's My Vision X, a compact, robust check scanner, combined with First Horizon's First Deposit Plus product, enables corporate customers to make check deposits from the convenience & safety of their own offices, & access their deposits sooner. This improves overall funds availability resulting in improved cash flow & an increase in investment opportunities. First Horizon, the 31st largest bank holding company in the US, selected the Panini My Vision X to meet its distributed check processing needs & has achieved significant success in deploying the solution to commercial clients of its First Horizon & First Tennessee for corporate capture. First Horizon has realized significant benefits from the Panini My Vision X scanning solution. 'We have been using the Panini My Vision X & are impressed with the results. Not only has the solution enabled us to manage our growing client base & check volume, but Panini's customer service team has been extremely responsive to all of our inquiries regarding functionality,' said Karen Doyle, First Horizon. 'The decision to integrate the Panini My Vision X has been the right choice for First Horizon.' 'We are pleased with our relationship with First Horizon as they continue to demonstrate their commitment to offer competitive products & services to their customers,' says Dave Youngerman, Panini.

PayPal e-commerce service 7/20 DTN In a move that furthers its strategy to expand payment processing beyond auction activity, PayPal is rolling out a transaction tool designed to allow small & medium-size Web-based merchants to accept all forms of payment through PayPal, apparently eliminating the need for gateways or other third-party processors. The processor, a unit of eBay, says it has no comment on reports that search-engine kingpin Google is planning to launch an online payments service later this year that would rival PayPal. The new PayPal transaction product, which the processor is calling Website Payments Pro, is the company's first non-hosted service. PayPal says it speeds up transactions for customers using PayPal accounts & streamlines processing for non-PayPal buyers who use credit cards. It includes a virtual terminal to allow merchants to manually enter card transactions received over the phone, by fax, & through the mail. PayPal accountholders, for example, can pay on merchants' Web sites with 3 clicks, PayPal says, including a brief switch to PayPal's site for login & payment confirmation before a redirection to the merchant's site for checkout. Credit card transactions for users without PayPal accounts appear to the user to be handled on the merchant's site, with back-end processing handled by PayPal. 1/2 of all PayPal transactions are card-based, with the remainder flowing through the ACH. PayPal, which depends on online auction traffic for about 70% of its transaction volume, last fall began moving into the broader market of payment processing for e-commerce merchants. PayPal is charging merchants \$20 a month for Website Pro, though it is waiving the monthly fee until later in the year. The product carries a per-transaction fee of 2.2% plus 30c up to 2.9% plus 30c. No other PayPal service carries a monthly fee, & per-transaction pricing for these other products remains in the 1.9% - 2.9% range. As part of the rollout of Website Pro, PayPal announced it is regrouping its products under 4 categories: Website Payments Standard, Website Payments Pro, Email Payments, & PayPal as a Payment Option. Reports emerged over the weekend that Google plans to introduce an online payments service similar to PayPal some time this year. The new service, Google Wallet, could be linked to a new classified-listing service the search giant is working on. Google, which in April filed papers in California to incorporate an entity called Google Payment Corp., would not comment. PayPal would say only that the company is 'waiting to see something' emerge from Google. 'It's just rumors & speculation. There's nothing to comment on.' Google said that they are working on a payment service but that do not intend to compete with PayPal.

SQN & Hawaii National Bank 7/25 Businesswire SQN Banking Systems announced the enhancement of Sentry: SigCheck. The software identifies check fraud through automated comparison of signature images & greatly improves efficiency for financial institutions through increased speed & decreased human contact. Hawaii National Bank has been one of the keystone institutions of Hawaii finance, providing a wide range of services to

small business customers & individual account holders. 'We have seen tremendous improvement in our bank processes with Sentry: SigCheck because the software sees what the human eye cannot,' said Linda Wright, Hawaii National. 'The software speeds up the signature verification process, exponentially increasing our productivity, & we no longer suffer losses due to forged signatures.' Sentry: SigCheck compares the signature in question with the account - specific signatures on file until it finds a suitable match, then scores the similarity according to thresholds determined by the financial institution. The score tells the user how closely the signature matches the reference signatures in the database. Most accounts have multiple signatures, which are extracted from signature cards & previously cleared checks. The database is continually updated to account for the ongoing changes in the individual's signatures. Sentry: SigCheck scores several checks per second, comparing multiple signatures per account. Sentry: SigCheck is automated to run unattended during the night. The multi-tiered system is configured by the financial institution to determine specific scores & dollar ranges that require a supervisor to review a suspect check. 'With Sentry: SigCheck, financial institutions can feel more confident in their pay/no-pay decisions & verify substantially more checks in less time,' said Joe Uhland, SQN. 'The automation & speed of the software allow bank employees to dedicate their time & energy to what really matters: the customers.'

Trustmark & Vectorsgi 7/21 Businesswire Trustmark National Bank has selected the Vector Capture Anywhere, Vector IQA & Vector Image Exchange solutions for check image exchange reducing transactional costs between the company's branch locations in Florida, Mississippi, Tennessee & Texas. Metavante will expand its long-term relationship with Trustmark, which uses a variety of Metavante technologies. 'The Vector Capture Anywhere & Vector Image Exchange solutions provide undeniable business benefits in a Check-21 environment,' said Nick Anderson, Trustmark. 'The transactional savings & image exchange capabilities garnered from these solutions position Trustmark to experience a significant return on software investment & enhance operational efficiencies.' TowerGroup's Robert Hunt estimates that Vectorsgi's client list represents more than 40% of the future volume of image exchange. 'Top financial institutions realize the need to exploit the full value of images & control new transaction revenue with quality imaging solutions.' With the Vector Image Exchange Solution, Trustmark will receive & process files, identify exception items, process exceptions via image, & shorten the traditional settlement process. It will perform 'virtual' capture & reject repair & automated balancing to complete transactions. According to Sydney Smith Hicks: 'Vectorsgi, has the distinction of having the premier solution for capture & image exchange in the large bank market.' The Vector Capture Anywhere Solution collects & balances image deposits electronically, streamlining item processing & extending the time available to make deposits. This allows banks to offer increased funds availability & reduced float, regardless of time zone or location. 'Remote capture opportunities at branches, ATMs & correspondent banks can dramatically reduce Trustmark's transportation costs while eliminating the chance of backlog due to weather-related circumstances or unforeseen events. The solution presents a low-risk opportunity for Trustmark to diminish geographic barriers & aggressively pursue a broader footprint.'

Unisys & IPSL 7/21 DJ Unisys says it may sell its stake in a troubled UK check-processing joint venture. Joseph McGrath, Unisys, said that the venture, Intelligent Processing Solutions Ltd., is one of 2 'challenging' outsourcing operations that have hurt his company's earnings over the past 6 months, & that fixing the 2 operations has taken longer & cost more than expected. Unisys reported a IIQ net loss of \$27.1m, or 8c a share, compared with net income of \$19.4m, 6c/share, a year earlier. It lowered its 2005 earnings forecast to a range of 33 to 38c a share, from a previous range of 50 to 60c. Both forecasts exclude pension expenses. McGrath said his company is in talks with its banking partners 'to sell our ownership position in the joint venture, &/or make other changes to the service agreement.' Intelligent Processing is a joint venture between Unisys & 3 UK banking companies: Barclays, Lloyds TSB & HSBC. It was formed in 2000. The unit processes checks for several UK banks, handling 70% of the country's total check volume & generating about \$200m of annual revenue. Unisys has \$235m of assets related to the venture, & that if Unisys sold its stake, it could remain involved as a subcontractor. One of the problems with Intelligent Processing has been 'migrating' the various bank partners' information technology systems to 'one common system. While we believe that our ongoing discussions will result in the recovery of these assets, the final outcome of negotiations could differ from current expectations, which may impact our ability to recover the assets. We are working aggressively to address the issues in these 2 challenging contracts.' Lloyds & Barclays said they could not comment on possible ownership changes in the venture. HSBC declined to comment. McGrath did not name the other troubled outsourcing operation, but Unisys has renegotiated labor contracts & added customers to try to improve it. Unisys' IIQ results were weighed down by heavy pension expenses, the problems with the outsourcing operations, & weak demand for enterprise servers. Revenue rose 3%, to \$1.44b. Revenue from IT services rose 6.7%, to \$1.24b, while hardware revenue fell 13%, to \$199.5m. Unisys wants to focus its consulting operations on outsourcing, & that it hopes to follow a model much like IBM's to expand its business beyond hardware & software sales. McGrath told analysts his company is 'working through a transitional period in our business,' & is in the middle of an 'in-depth strategic planning process.' It is cutting costs & strengthening its sales & marketing practices. It plans to raise awareness of the Unisys brand; he would have more details in the fall. IIQ customer orders for Unisys' services rose at a double-digit rate. McGrath expects order volume to remain strong in III. There has been recent speculation that Unisys might sell some assets, & an analyst asked whether it would consider splitting up the services & hardware operations. McGrath downplayed that possibility. 'The reason we're a 2-part business is we really believe there's a high degree of synergy between our 2 businesses. We do not intend to manage them separately, but rather take advantage of their combined synergistic effects.'

USA Technologies e-Suds program 7/26 PRNewswire USA Technologies announced that 8 more colleges, universities & apartment buildings will provide their residents with e-Suds online laundry services starting the fall 2005 semester. The company reported that by the fall semester, a record 120,000 US college students will be able to use their student ID/one card system to pay for their wash; go online to see if there are washers or dryers available in the laundry room; & be notified via instant messaging or email to their computer, PDA or cell phone when the cycles are complete. USA Technologies reported that its e-Suds system was being installed at Case Western Reserve & Temple Universities. Since that time, the Company has received orders for e-Suds products that will be provided to significant customers including Rutgers, American, Elizabethtown University, University of Cincinnati, Villa Julie College & Goucher to the list of colleges & university who will offer the e-Suds service to their resident students. 'Following the success of e-Suds installations at universities such as Carnegie Mellon, Bluffton College, Cedarville, the efficiency, productivity & convenience that the e-Suds system offers is growing in demand,' said Stephen Herbert, USA Technologies. 'We are overwhelmed & delighted by how the technology has been embraced by our innovative distributing partners who are successfully using it as a point of differentiation. e-Suds has been an integral component in securing several new contracts for our partners, with some contracts extending for up to 10 years.' USA Technologies' distribution partners, Caldwell-&-Gregory & American Sales, are managing sales & the installations of the e-Suds services. 'Colleges & universities are requesting e-Suds because it allows students the convenience of using their college identification cards,

to activate & pay for the laundry service, & because the service is online, it offers students more productive use of their time,' said John Gregory, Caldwell & Gregory. 'Students enjoy using the technology, & it's appropriate for the networked world students live in. We consider e-Suds to be a competitive advantage to our service offering & are actively marketing the technology to our new & existing accounts. By fall 2005, 7 of our key college accounts will be using the e-Suds service, & we are planning for significant future growth.' 'This has been an successful contract season for our distributor partners with major wins that are generating considerable interest in the college laundry industry. With the growing expectation from students & administrators for online monitoring service for laundry, we anticipate the network of e-Suds customers & users will grow rapidly,' said Mr. Herbert. Last week, USA Technologies announced that sales of all 4 of its key product lines in the past quarter were up sharply over the quarter this time last year, & that it was entering its fiscal first quarter, for the period ending 9/30/05, with a backlog of orders in excess of \$1m.

US Dataworks Crosses Over 1b Transactions 7/25 *PRNewswire* US Dataworks has exceeded the 1b transaction threshold using its Clearingworks payment platform. Clearingworks processes ARC transactions, image exchange/substitute checks, & telephone-initiated & Internet-initiated transactions for some of the largest credit card companies & financial institutions & the federal government. 'To have processed 1b transactions within an industry that is only just now beginning to understand the power of converting paper payments into electronic transactions is a testament to Clearingworks' outright acceptance in the market,' says Charles Ramey. A total of 1.25b ARC transactions were processed in all of 2004; increasing by more than 1b transactions over the total of ARC transactions processed in 2003. Adds Ramey, 'As the industry embraces the conversion of paper payments to electronic ones, we intend to leverage our dominance in electronic check processing into a wider variety of payment related solutions, offering a fully automated, end-to-end solution for every payment processing need.'

Viewpointe's strategy 7/21 *AB* Viewpointe's image-sharing system, conceived as a centralized check-clearing hub, is morphing into a decentralized exchange network that nonmember banks could use to send files to one another. The vendor has long claimed to be unique because of its file-sharing model for clearing images. By developing a service that will let banks exchange files with each other, whether or not they use the archive, Viewpointe is becoming a more direct competitor to the image-exchange networks operated by SVPCo, M&I's Endpoint Exchange, & the Fed. 'To a large degree, Viewpointe is competing with SVPCo in the exchange arena,' said Bobby Moody, Synovus. Last month Synovus became the 2nd banking company in as many months to announce that it would use Viewpointe's Pointe2Pointe service. 11 banks store check images in Viewpointe's massive shared archive, & the vendor says its system stores about 65% to 70% of the nation's check volume. It has spent years developing its system & has long said its goal is to let its customers clear checks within the archive, with banks giving each other permission to view their files. 4 member banks are doing so, though the volume is low, & the vendor has said the approach is more efficient than image-exchange networks, in which banks transmit the files to each other. But in May, Viewpointe said it would let nonmembers connect their own archives to its own to facilitate the exchange of images. Compass Bancshares was the first company to sign up for Pointe2Pointe. BancorpSouth said that it is preparing to use the service. Those 2 companies, along with Synovus, are conducting 90-day implementation projects. None of the 3 store images in Viewpointe's shared archive, but all of them said they wanted to exchange images with some of Viewpointe's members. Synovus & BancorpSouth said they wanted to exchange files with Compass. 'With Pointe2Pointe, they've basically adopted the SVPCo model as one of their options,' said Aaron McPherson, Financial Insights. 'It's not that big of a jump. Basically, they added the ability to download images rather than using Viewpointe software to view them.' Jennifer Lucas, Viewpointe, conceded that the new model lets banks use her company as a middleman for transmitting files between companies that don't use the archive. 'Short term, we are trying to promote adoption' of image settlement. Viewpointe's long-term focus is on sharing rather than exchange, & 'we don't think we compete with any of' the image exchange networks. Banks have multiple options for using images to clear checks. Many banks are eager to cut their processing costs & accelerate settlement by transmitting checks electronically, instead of sending the original items. Use of image systems remains low, & though Pointe2Pointe is a new option for banks, it remains to be seen how rapidly it will take off. Moody said Synovus is talking with potential Viewpointe trading partners, which he would not name. Pointe2Pointe customers must establish individual agreements with each of the banks with which they hope to exchange images. Synovus is sending images across Endpoint Exchange. His company is testing its connection with the Fed & hopes to use the FedForward service to transmit check images to the Fed by the first week of next month. 'With the way the landscape is today, we believe it makes sense to have multiple clearing partners, which is really exactly the same way we do it in the paper world.' George Thomas, Clearinghouse, expressed skepticism about whether Viewpointe's exchange will take off. Viewpointe conducted its first image-sharing test in December, & the low participation now demonstrates the challenges in rolling out image-clearing services. Thomas does not consider Viewpointe a direct competitor, & noted that 'they don't have a working product.' First Horizon & SunTrust began clearing through the Viewpointe archive in December, & BoFA started doing so this month. Lenora Thompson, SunTrust, said that clearing volume remains low but has grown to thousands of images nightly, from a few hundred when her company started sharing files with First Horizon. She agreed with Moody that Pointe2Pointe could facilitate image clearing with more banks. 'We're excited about that. That gives us more potential trading partners to exchange with.' For now SunTrust is focusing on ramping up its volume with First Horizon, though 'we're going to be looking at new partners very soon.' 8 banks are using SVPCo's network to exchange images, but the going has been slow. The system had its first successful test in August, & participants are sending 4m items per month, only a fraction of their volume, through the network. Its system is connected to the Fed's & Viewpointe's. The Fed has had problems getting its image systems up & running. FedForward, which lets banks transmit images to the Fed, went live in October, but several target dates have been missed for the introduction of the FedReceipt service for sending files to paying banks. 'We're still in testing' with FedReceipt, said David Fettig, FRB Minneapolis, who would not offer a revised start date. 'My hunch is, it all depends on how testing goes.' Jeff Vetterick, Endpoint, said 4,000 banks, most of them small ones, are enrolled in the network; 2,500 of them are clearing payments through it, & the rest are testing their connections. The banks transmitted just 6m images through the network last month. Viewpointe's move into image exchange is a departure from its file-sharing approach. 'It's potentially more competition for me, but it's a good thing, because it validates our model.'

VSoft & Captiva b-Wize Dispatcher 7/25 *Businesswire* VSoft will augment its eDesk family of products with Captiva's b-Wize Dispatcher to offer advanced document classification & data extraction/indexing technology to its growing customer base. 'The b-Wize classification & data extraction technology for structured & unstructured documents will expand VSoft's product capabilities,' said Murthy Veeraghanta, VSoft. 'This technology allows a unique & extremely fast ID, indexing & routing of digitized documents, & enhances the other technologies we use for electronic document management.' VSoft's eDesk family of products is a browser-based portal, providing a single point of entry for a variety of technology modules. eDesk includes multiple products that cover back office, operations, lockbox processing, Check-21 & retail functions. 'We're pleased to

welcome VSoft as new partners in the Captiva Connected Partner Program. We look forward to working with VSoft to offer classification & extraction technologies to deliver robust solutions to our joint customers,' said Wayne Ford, Captiva. b-Wize Dispatcher offers a unique way to automatically sort & index all types of documents at a high speed. For customers who need to automate forms processing, Dispatcher technology answers the problem of automatically identifying form types prior to the indexing stage. Not only does it improve the speed & accuracy of forms processing & data capture, but it relieves users from the burden of pre-sorting documents prior to scanning. b-Wize Dispatcher was developed by integrating technologies for identifying heterogeneous documents & extracting business data. Dispatcher automatically generates a digital fingerprint that analyzes the content & layout of each document. A library ranging from a few hundred to several thousand signatures is created automatically when the program analyzes the document holdings. b-Wize Dispatcher creates a digital signature for each type of document, analyzing its identity: its type, graphical structure, search areas for data extraction, type of data to extract, etc.

Banking & Payments

Smartcards & electronic currencies are putting notes & coins out of business 7/23 *NewScientist* Money makes the world go around, but not always as conveniently as one might wish. There's never enough cash in your wallet; the coins in your purse only weigh you down. Then there is the pile of bank cards to squeeze in, & as if that weren't enough, store cards just keep multiplying. But that is all set to change. A raft of new technologies is appearing that will suck up that cash & dump it into a handy electronic device, liberating our pockets from crumpled notes, jangling change & wads of cards. These electronic alternatives are promising to bring about an explosion in the number of ways of paying for things & perhaps usher in currencies that work quite differently from dollars, pounds & euros. We are used to paying with credit or debit cards rather than cheques or cash. But what if you want to make a payment online that is as anonymous as cash? An international system now being developed could do the trick. Other times you might buy goods with your frequent-flier miles. Or if you commute every day, you might use a payment card that will net you a discount on your next subway ride. You might even choose a payment system that's designed to benefit your community. & because it will all be computerised, the pain of managing all these accounts will be handled automatically. Today most currencies are issued by national central banks. But there is no fundamental reason it must be this way. Anyone can legally issue a currency. All it needs to make it work is a large enough community of people who respect its value. For that to happen, there have to be safeguards against counterfeiting – for an electronic currency this means cryptographic protection. What about the hardware that will make wallets, purses & cards obsolete? In Japan, millions of people are getting a taste of electronic cash in the form of a service run by the cellphone operator NTT DoCoMo. The company sells handsets with built-in wireless electronic payment systems for small cash transactions. It looks as though in the near future the mobile phone will double as a personal banking device, keeping track of your money & maintaining order in your electronic wallet. Is it really possible that the way we pay for things will change so dramatically that the need for cash might completely evaporate? The story of credit cards suggests that this is not a pipe dream. Just 2 generations ago, they did not exist: they arrived in the US only in 1958, the UK had to wait another 8 years, & Australia eventually caught up in 1974. Yet worldwide, there are now 1.7b credit cards in circulation. Credit cards, & their siblings debit cards, dominate our payment habits. But they are no longer alone. Other payment options have begun to appear on the scene, & some have many key attributes of an alternative currency. Take frequent-flyer miles. & buying flights, AirMiles 'earned' with British Airways can be used to pay for shopping at Sainsbury's supermarkets in the UK. Frequent-flyer miles given to Cathay Pacific passengers can even be used to pay for surgery at one private hospital in Thailand. While credit cards are used mainly for large or medium-value purchases, other options are starting to appear for 'micropayments' down to just a few pence. In Hong Kong, a smartcard called Octopus, which was designed to speed access to public transport systems, has since 2000 been accepted in shops as a way to buy low-value items like newspapers & drinks. & in London, the Oyster card now widely used to pay for journeys on London's buses & underground trains will soon go on trial in a similar system. Yet despite the high-tech alternatives, cash has proved remarkably hard to dislodge from our lives. In the mid-1990s there were high hopes for e-money systems such as Mondex & Visa Cash, but they failed to catch on. At the time, it was argued that electronic money was more convenient than cash. But it turned out that most people did not agree. Perhaps these attempts were too ambitious. 'One thing that Mondex did wrong was that it tried to be everywhere,' says Jean Camp, Harvard, president of the International Financial Cryptography Association. A new payment system can't afford to be too small, either. It's the chicken-and-egg problem: merchants won't accept a new currency or payment method unless they know that customers are going to use it; customers won't use it unless they know merchants will accept it. As Camp puts it, 'To succeed, you have to pick the right kind of 'everywhere''. For the Oyster card, 'the right kind of everywhere' means the nearest bus stop or station. With 150 tube stations & 8000 buses across London accepting it as payment for journeys, 3.2m people use one. In January payment devices in 3850 London shops will allow people to use an Oyster card to pay for such things as newspapers, food & drink. At the same time the cards are expected to entirely replace cash on buses. That large pool of existing users is why Oyster might succeed where Mondex failed. But it started out with humbler ambitions. Originally it was seen as a straight replacement for the magnetic-stripe cards previously issued as tickets, says Charles Monheim, Oyster project at Transport for London, which oversees public transport services. Oyster cards are read simply by waving them in front of a pad, & these 'contactless' reader pads were deemed more reliable than the magnetic readers they are replacing. But they allowed passengers to charge up a card with credit for multiple journeys, & to have free travel once they'd spent a certain amount in one day. It's that flexibility & adaptability that gives Oyster extra potential. According to Leo Van Hove, Free University of Brussels (VUB), commuters in Hong Kong use their Octopus cards on average 24 times a month, & 15% of those purchases are for items other than transport tickets. That works out at one retail purchase a week on the Octopus card. Like Octopus & Oyster, other e-payment systems are concentrating their efforts on a limited geographical range. In the mid-1990s, when Renah Persofsky was CEO of Bank of Montreal's e-commerce division, she witnessed the failure of numerous digital cash schemes. 'I felt that I knew how to make it work,' & the electronic micropayment system she has since set up has drawn on that experience. Called Dexit, it began by blanketing downtown Toronto. Now the system counts 50,000 users & 500 merchants in the area. For users, one of the big advantages of the Dexit card over ordinary cash is that it can recharge itself automatically. 'We'll move funds for you from any bank in Canada. That way you are always sure that there is something in your wallet.' It's like having a wallet that goes to the cash machine for you. Strictly speaking, the Dexit card isn't even a card any more. The chip that started out at the heart of the smartcard can now be built into a keyring tag, or a sticker that you attach to your cellphone or PDA. & customers can sign up to be sent an SMS message to remind them when their account needs a top-up. All this activity has not gone unnoticed by the giants of traditional electronic payment. After watching from the sidelines for a decade, Visa, Mastercard & AmEx have started issuing cards that can be used to pay sums as small as a few pennies simply by waving them in front of a reader. No signature or PIN required. Japan shows where these payment cards may be going. Last year NTT DoCoMo began selling mobile phones containing chips based on Sony's FeliCa smartcard system. Today there are more than 3.7m of these i-mode FeliCa phones in circulation. Users can use the phones to pay for

transport or goods at hundreds of locations across the country. Other mobile phone companies are following suit. Nokia & Philips are developing their own versions of the technology, & the 3 companies have signed agreements to make their systems compatible. Electronic payment systems may help alternative currencies grow. Many such socially or politically motivated currencies have been around since long before e-payment systems became practical. Ithaca Hours, a currency circulating in the college town of Ithaca NY (population 30,000), is one example. Founded in 1991 by a social activist called Paul Glover, Ithaca Hours reflects the idea that an hour of labour should always have the same value, no matter whether it's for babysitting or running a company. The currency itself is printed on locally made paper by a local printer. There are over 12,000 Ithaca Hours in circulation, & around 600 members are listed in the Ithaca Hours directory, including individuals & merchants who accept Hours as payment. Ithaca Hours has spawned well over 30 imitators in the US alone. There are other organisations with similar objectives, such as Time Banks. Ithaca Hours has inspired a new generation of high-tech currencies. 'Conventional money is, in my view, not designed for social purposes,' says Bernard Lietaer, who worked for Belgium's central bank on the introduction of the euro but is now based in the US. 'It is more appropriate for competitive purposes.' Lietaer thinks the solution to many social problems lies in linking economic reward to social behaviour. 'We've been throwing money at social issues for a long time, but it just doesn't work.' He cites the paradoxes thrown up by the US healthcare industry. 'It makes money when you're sick, & it's remarkably effective at doing that.' But if you stay healthy, only the health insurance companies win out. 'Imagine that you could earn a currency by doing healthy things. That is one of the projects I'm working on, a health-promoting currency that would tie in with insurance companies.' Lietaer believes that social currencies will soon go mainstream. It's a matter of merging 2 separate concepts: local currencies that have the social goals but not the means to implement them, & business currencies such as airline miles & customer-reward programmes that have commercial backing but no social purpose. 'I can tell you that they are about to merge,' says Lietaer, who is now a visiting professor at Naropa University in Boulder, Colorado. He predicts that the breakthrough will happen in the next 3 years, & that when it does it will be in the form of an electronic currency. Lietaer isn't the only one developing a high-tech social currency. Agnes Koltay, a Hungarian based in Dubai, & Daniel Nagy, who lives in Toronto, are treading a middle path between Lietaer's idealism & the profit-oriented pragmatism of Oyster, Dexit & their ilk. The 2 have come together in their spare time to create ePoints, a system that people can use to create their own electronic currency. Unlike the ill-fated internet currencies of the 1990s, the payment system itself is not intended to make a profit; that will come through the distribution of enabling software, allowing the payments themselves to be fee-free, just like cash. 'Some other systems make the mistake that they want to keep it very centralised, to make a profit on exchange rates & service.' ePoints will be totally decentralised, much like the internet itself. Anyone can set themselves up to issue electronic ePoint 'notes', & anyone can use them. That might sound radical, but in fact a world full of different currencies is nothing new. As far back as the 17th century, privately printed currencies coexisted with, & often outnumbered, government-issued cash in Europe & America. In the future the single currency economies we've been living in might seem like a quaint hiccup. An e-currency of your own: Anyone who has used eBay will know about PayPal. It's a system that allows individuals selling goods to receive payments from the buyer's credit card, a facility normally reserved for established businesses. PayPal has made P2P payments possible, internationally & nationally, but it has downsides. Every time money is withdrawn from a PayPal account into a normal bank account, PayPal takes a cut. Unlike cash payments, PayPal is not anonymous. The ePoints system set up by Agnes Koltay & Daniel Nagy is different. It allows anonymous person-to-person transactions over the web, & though the software itself costs money, Nagy says every subsequent transaction will be free. Charles Cohen, founder of failed e-currency Beenz, supports this thinking. People will only adopt new payment systems if they are free. To use ePoints, a person requests an ePoint 'note' - in reality an encrypted code that represents some amount of ePoints - from an ePoints issuer. The issuer is the person or body that administers the system & ensures that ePoints aren't duplicated. The issuer cryptographically signs each ePoint note in exchange for some money of equivalent value in another currency, say pounds or dollars, or for some work done, or as payment for some other service. When someone spends ePoints, the person receiving them in payment contacts the issuer to verify they are not counterfeit. The cryptographic algorithms ensure the issuer cannot tell where the ePoint originated, nor the chain of hands it has passed through, only that he has been asked to confirm an ePoint is authentic. But anonymity alone is not going to make people use it. If ePoints is going to catch on, it will have to find a niche that makes it attractive to a large pool of users. That's where ePoints' cheap & borderless nature comes in. ePoints can be seen as an international electronic currency & this, Nagy & Koltay believe, along with security & anonymity, will provide the niche it needs. ePoints may be attractive to companies that want an electronic method for handling payments of a few pennies. Credit card companies charge a minimum fee for each transaction they process, & for transactions of less than a few dollars this can represent a large slice of the total. In return, credit card companies provide a high level of security. As Nagy points out, this is overkill when only small sums are changing hands. A penny transaction should not need a lot of security. A thief will gladly invest 5 pennies of effort to steal a credit card, but no smart thief will spend 5 pennies to steal a 1-penny ePoint. Nagy & Koltay are not the only ones aiming at the micropayments niche. In spite of the rocky beginning of digital cash in the 1990s, several alternative micropayment systems have sprung up, including Peppercoin, PayCash & Open Money. Recently a big name has shown interest. Nagy says a test version of the entire ePoints software system was recently downloaded by engineers at Google. Reports suggest the company will soon launch a competing service to PayPal. As with a cash transaction, only the 2 parties to the transfer need know each other's true identity.

Phishers wreak havoc on online banking 7/21 BostonGlobe It was any banker's worst nightmare. Shortly after Wachovia sent an e-mail inviting recipients to go to a new log-in page as a result of its merger with First Union, some savvy customers swamped Wachovia's call center to inform officials that criminals were attempting to steal the financial information of Wachovia's customers through a bogus hyperlink. One problem: The e-mail was authentic. Buried under an ever-increasing deluge of Internet spam & phishing attacks - which imitate e-mails from financial institutions to dupe victims into revealing financial information - online banking customers have become so wary of Internet correspondence from financial institutions that bank officials must now think twice before sending out an e-mail to contact customers. 'Phishers have done a pretty good job of wrecking e-mail,' said Lawrence Baxter, Wachovia. 'We've stopped all of that for that reason.' According to Javelin Research, 55% of people who receive an e-mail with their bank's name & e-mail address that asks them to log in to their account will delete the e-mail without taking any action. The magnified awareness of phishing has nearly destroyed the trust in a valued avenue of communication between banks & customers that banks took years to build. A survey by Gartner said that 28% of consumers have said that online attacks influence their online banking activity. 14% of that group have stopped paying bills online as a result & that 4% have stopped online banking altogether. 'Banks have come to rely on the Internet for low-cost interaction & marketing. This might get much worse.' Avivah Litan, Gartner said that companies save 45c every time they send an account statement electronically instead of by paper mail. A bank that sends monthly account statements by paper mail to 5m customers would spend \$27m more than if it sent electronic statements. In its acquisition of SouthTrust, Wachovia officials resorted to paper mail to inform customers of what was happening & what to do. Bruce Cundiff, Javelin, said that Wachovia's example demonstrates eroding confidence in the

online medium as a secure means of communication for financial institutions. 'Consumers are made overaware of identity theft, & there's lack of trust in e-mail. Now, it's ludicrous for a bank to send out an e-mail with an embedded link.' BofA's Betty Riess said that BofA has reduced its e-mail marketing programs, & more commonly send e-mails specifically targeted to a customer. During its massive conversion of 2m FleetBoston online accounts, which was completed last month, BofA officials used only paper mail to communicate to customers. Officials at the bank are rolling out a new security program, SiteKey, which displays a picture & message unique to each online banking customer when the customer logs in to prove that they are at the legitimate BofA website. Other banks include account information in the subject header to try to persuade customers that the e-mail is legitimate. When retail customers receive an e-mail from Citibank the e-mail's subject line includes the customer's first & last name & the last 4 digits of his or her ATM card number, according to Citibank's Janis Tarter. According to Cyota, some phishing attacks include targets' names & ATM numbers in the e-mail. These specialized attacks use previously stolen data to fool recipients into divulging other sensitive information, such as Social Security numbers or an ATM PIN. Such attacks contain an added threat because the previously stolen information gives them a veneer of credibility, & once they become widely known, many customers are unlikely to trust e-mails that contain personal information. Banks' intensive public education programs to alert customers to phishing scams have had the added effect of eroding confidence in online banking, said Amir Orad, Cyota. 'When a banker sends an e-mail telling customers to be careful when they receive an e-mail, to never give out personal information, & so on, is he doing a good thing or making people not use the channel? This phishing trend is obvious, & it's going to get worse.'

81% of community banks offer customers 24/7 online account access 7/21 Businesswire Almost all large community banks offer 24/7 online account access, only 57% of small banks do. 81% of community banks report that they offer 24/7 online account access to their customers, while 65% offer 24/7 online bill payment, reports a Grant Thornton survey of community bank executives. The size of the bank has a significant influence on these offerings, with 97% of large banks (more than \$500m in assets) offering 24/7 online account access, compared to only 57% of small banks (less than \$100m in assets). In the area of online bill payment, the difference is even greater, with 94% of large banks offering 24/7 online bill payment & 29% of small banks. The location of the bank has an impact on the service offerings. Urban & suburban community banks generally have more customer service offerings than their rural counterparts. 94% of suburban banks & 89% of urban banks offer 24/7 online account access, while 67% rural banks do. Bill pay follows similar lines, with 82% of suburban banks offering 24/7 online bill payment, compared to 51% of rural banks. 'As more of the country becomes connected to the Internet, banks are finding that they need to offer online banking as a must have service,' says John Ziegelbauer, Grant Thornton. 'Reality is catching up with predictions in this area. 2 years ago in our 2003 survey, 54% of small banks said that online banking was important to the success of their business. Now, more than 1/2 of the small banks that responded offer online banking.' 72% of community banks offer customers drive-thru window service after lobby hours. As for lobby hours themselves, 66% offer Saturday lobby hours & 36% offer either early morning or late evening lobby hours more than 1 day a week. 6% of community banks report having lobby hours on Sunday. The size of the community bank has an effect on the lobby hours it keeps. 62% of small banks offer drive-thru window service after lobby hours compared to 80% of large banks. 83% of large banks have Saturday lobby hours, while only 52% of small banks do. Sunday lobby hours are offered by 10% of large community banks, whereas 2% of small community banks have them. These previously unreleased responses were part of Grant Thornton's 12th Annual Survey of Community Bank Executives. The question asked community bankers to state whether their bank offers any of the 12 customer service offerings listed, which included Sunday lobby hours & proprietary ATMs. 'Banks live & die by the customer. Making sure that they serve the needs of their customer base, whether its by offering longer lobby hours or belonging to an ATM network, is a top priority for all banks, community or otherwise.'

Service	Total	Small	Medium	Large
24/7 online account access	81%	57%	89%	98%
Drive-thru window service after lobby hours	72%	62%	75%	80%
Proprietary ATM(s)	69%	59%	69%	81%
Saturday lobby hours	66%	52%	68%	83%
24/7 online bill payment	65%	29%	75%	94%
Regional or national network ATMs	60%	56%	66%	55%
Online customer service with delayed email response	41%	17%	47%	58%
Early AM or late PM lobby hours more than one day a week	36%	27%	37%	46%
Online customer service with live response during normal business hours	20%	6%	24%	33%
Online customer service with live response 24/7	9%	5%	9%	14%
Sunday lobby hours	6%	2%	6%	10%
None of these	1%	4%	0%	0%

Financial institution cross-selling 7/22 Businesswire US financial institutions are focusing more on their current customers. By cross-selling other products to their existing customer base, these companies are hoping to spark renewed interest in additional service options. According to Comperemedia, a subsidiary of Mintel that monitors direct mail activity, mail volumes have increased significantly in the financial cross-selling category from 1/04 - 1Q 2005. Chase tops the top 5 cross-selling direct mail list for both mortgage & banking product categories. Comperemedia's shows that the top 5 mortgage companies heavily using direct mail for cross-selling include Capital One, MBNA, Citibank & Wells Fargo. For banking, BofA, Capital One, Wachovia & Union Bank of California join Chase in the top 5. 'Financial companies understand that existing clients are just as powerful, if not more, than new clients. A strong testament to the impact of cross-selling occurs when companies are able to quantify the revenue impact of these types of direct mail campaigns.' Wells Fargo has credited part of their current revenue success to cross-selling activities. 80% of their recent growth stemmed from selling more products to existing customers. 'Customers are perfectly willing to shop around for the financial services that best meet their needs. If their existing financial institution cannot provide the services they need, they will look elsewhere. It makes sense for companies to offer incentives & special promotions to hold on to their existing customers. The future of cross-selling direct mail will reflect more targeted offers that really emphasize the importance of each customer's individual tastes & preferences. Better incentives & service bundling will pave the way to more successful cross-selling programs.'

Online financial services at a turning point 7/26 eMarketer Finance companies are aggressively marketing on the Internet, & expenditures are likely to increase-particularly in the area of search-as consumers embrace the idea of managing financial tasks online. 'The important role of search in the consumer financial decisionmaking process is causing a shift in ad spending,' says Debra Aho Williamson, eMarketer. Online display ad spending among financial services firms was flat last year at \$915m, but there are numerous signs that budgets in some segments of the industry are moving toward search. eMarketer estimates that financial services firms could put 40% or more of their online advertising budgets toward search this year. Among all segments of online financial services, insurance may be the one to watch. It saw the strongest growth in terms of Internet audience in the past year, according to Nielsen/NetRatings. The category of sites that includes Paypal dropped in audience, something Google should take note of given its plans for an online payment system. Frequency of use is rising, according to Ipsos-Insight. US adults who frequently or sometimes use the Internet for personal banking check their account balance online an average of 6.2 times per month, up from 5 times per month in 2002. Bill paying is seeing an uptick in frequency. The number of online banking customers at the top 10 banks has doubled since 2003, according to comScore Networks. There was double-digit growth in 2004, perhaps triggered by promotions such as Citibank's offer of a free iPod for opening an online account. 'There is real concern, though, that growth in online financial usage could flatten out as a result of publicity surrounding data theft, phishing attacks & security breaches.' A study by Gartner in 6/05 states: '30% of the online bankers say that online attacks have influenced their online banking activities. ¾ of this group log in less frequently, & 14% of them have stopped paying bills via online banking.' 'The more wary consumers become, the more likely it will be that the growth in usage of online financial services will stall. But smart marketers aren't waiting for the sky to fall, they are acting now, researching new ways to communicate to consumers & prospects online, new ways to advertise & market & redoubling their security systems. This is too big an opportunity to miss.'

Banking & Payments abroad

Australia - touchscreen for small retailers 7/23 *CourierMail* Small retailers are being urged to ditch their cash registers if they want to expand their business. While many large retailers have adapted to the futuristic touch-pad technology, Gold Coast firm AW Retail Systems has just launched a new touchscreen POS system designed so small business can benefit too. Business manager Warren Painter has been developing computer software for 5 years & decided to turn his attention to POS when the company was approached by a client who wanted a customised system. 'At the time they were being offered systems in terms of \$10,000 to \$15,000 & with the cost of hardware coming down, we thought we could definitely do better than that for the small guy.' SwiftTouch computer software is designed for small businesses to be used at the front counter & as a back office administration tool for stock control, customer management & reporting. Painter said the POS system could help small businesses become more efficient. 'The advantage of any computer POS is you've got all your stock control, you've got your customers, what they've purchased, everything is recorded in your computer. When people have a manual system, not only is it very time consuming to work out what's selling but in terms of re-ordering, it's those business decisions that must be made quickly so you get a good understanding of the health of your business at any point in time to make business decisions that will actually help you grow.' SwiftTouch terminal retails for \$5000 - \$6000 & the software costs \$1000 & Painter said retailers from hairdressers to coffee shops & fast food operators had them. Smaller retailers had responded well to the opportunity to take on the technology that had previously been made available only to larger operators prepared to pay more for customised software. 'People are definitely open to a cheaper option. They are open to advances in technology in terms of the touchscreen. They love that, particularly people dealing with grease or liquid. 'With a keyboard & a mouse, which is your other option, a keyboard gets stuck & mice can get greasy but touchscreens you can just wipe them.' SwiftTouch offers an advantage because it doubles as an advertising medium. 'We've put on a second advertising front screen so the customers can see what they are purchasing & at the same time you can advertise to them. It looks like the Coles & Woolies systems & there's no reason why you have to pay a lot of money to get that kind of advertising.'

Europe - m-payments setback as Simpay closes down 7/21 *EPI* Simpay, m-payments company established by a consortium of European mobile operators in 2003, has decided to close down its operations, abandoning the vision of a pan-European m-payments solution. The move, agreed at Simpay's annual meeting, followed the decision of one of its founding members, Germany's T-Mobile, 'not to launch Simpay for the foreseeable future. Simpay's operations will be scaled back with immediate effect. Member operators will be able to exploit Simpay's intellectual property rights at a national level, although international interoperability remains a goal. The members will make known their individual plans in due course.' Intellectual property rights will be owned by the 6 member operators – Amena, Orange, Proximus, Telefónica Móviles, T-Mobile & Vodafone – according to Jim Wadsworth, Simpay. No products or services will be launched under the Simpay brand. John Earl, Vodafone, said: 'We're evaluating what we've learned from Simpay.' He noted that Vodafone offers a range of payment solutions in different markets, including M-Pay, which allows shoppers on the web or mobile internet to aggregate small purchases & pay for them on their Vodafone bills. Simpay was established by Orange, Telefónica Móviles, T-Mobile & Vodafone in 2003 & was originally known as the Mobile Payment Services Association. The company built on an existing cooperation agreement between Vodafone & T-Mobile & was aimed at developing an open & interoperable international mobile payment solution. Spain's Amena & Belgium's Proximus became members. While Simpay emphasised that its member operators continued 'to share the vision of the enormous potential of the m-commerce market', the decision represents a major blow to proponents of m-payments. Nick Jones & Martin Gutberlet, Gartner, said that the 'decision to abandon a Europe-wide Simpay roll-out was a short-sighted one. M-commerce has not yet been successful & it needs stimulants, such as a standard multinational payment system. This move represents a lost opportunity, but it does not mean the end of European m-commerce. We believe that Europe's mobile payment systems will remain fragmented & that national payment solutions driven by local requirements will dominate. The losers from this decision will be consumers & merchants who would have benefited from simplicity, consistency & interoperability. The winners will be potential competitors, such as PayPal, payment processors, aggregators & operators' 'on portal' payment systems.' One competitor which may benefit from Simpay's woes is Upaid, the m-payments company which provides the technology to support Visa Central & Eastern Europe, Middle East & Africa's (CEMEA) mobile payment solution. Visa CEMEA announced in July that the service, which allows mobile phone users to pay their phone bills or top up prepaid accounts from their handsets using funds debited from a registered Visa or Visa Electron card, will launch in Jordan & later in Serbia & Morocco. Upaid CEO Ashley Ward said: 'Simpay would never work because it was barely different to the current operator billing model for 3rd party mobile content.' In June 2005, T-Mobile Deutschland launched a new mobile banking solution, StarMoney T-Mobile 2.0, which offers customers mobile access to their bank accounts to check account balances & make transfers. Transaction data from several accounts can be viewed & saved on the same mobile phone. Users input data offline into the digital transfer form, so the mobile online connection needs to be established only for the data exchange. Data are secured through the use of PIN & transaction number codes. Accounts can be accessed at most German retail banks.

UK – card trends 7/21 Datamonitor The UK market has defied predictions of saturation to once again set a new record for the level of spending on plastic cards. Throughout 2004, the value of transactions made on charge, credit, debit, & private label cards was £436.6b, up 11.3% compared to 2003. The value of transactions made on UK issued payment cards is predicted to grow at a compound annual rate of 7.5% between 2005 & 2009. UK spending on plastic cards reached £436.6b in 2004. This represents an increase over the £392.3b spent on plastic cards in the UK in 2003.

UK - London transport to test e-money on Oyster card Computing 7/25 Transport for London (TfL), operator of London's public transport network, is planning to allow commuters to use its Oyster transit smartcards to make low-value retail purchases by 2006. TfL, which has 2.2m contactless smartcards in issue, has short-listed 7 consortia with a view to testing the e-payments by end-2005. The firms include alphyra, Barclays, Paypal & Royal Bank of Scotland, & 3 consortia consisting of BBVA/Accenture/MTR/Octopus, secondly EDS/JP Morgan & lastly, Nucleus/Dexit/Ericsson, Hutchison 3G & EuroConnex. Under TfL's vision for its contactless debit application, London commuters will use their fare cards to pay for newspapers, coffee & parking in a move to equip newsagents, supermarkets, fast-food outlets & parking machines across London for Oyster payments. UK Financial Services Authority regulations forbid Oyster fare cards being used for non-ticket purchases, but TfL may bypass this hurdle by becoming a FSA-approved e-money issuer, or teaming with an entity that has these credentials, according to an e-government web site. In 3/05, TfL announced that Oyster card functions would extend to retail payments, & received applications from 100 interested parties. By June 2005, 20 companies had sent outline proposals for TfL's review, before the short-list was compiled. TfL assumed management of the London Underground in 2003 & oversees London's buses, Docklands Light Railway (DLR) & trams. 3m passengers use the Tube daily, passing through 275 stations & 36 DLR stations, while 8 thousand London red buses carry 6.3m passengers every day.

Cards, ATMs & POS

ATM owner pushes cashless options at casinos 7/21 ATM&DebitNews There is no business sector in the nation more interested in drumming out the expense & risk of handling cash than the historically cash-driven casino industry. The Fed determined last year that electronic payments of all types are growing at a rate of 13.2% annually while cash & check payments continue to steadily decline. As such, casino operators seem keenly interested in taking advantage of this cashless trend by making it much easier for gamblers to avoid using cash. The Las Vegas-based Global Cash Access, the largest casino ATM operator in the US, is promoting an entire product line of cashless gambling products that the firm expects will be used on a widespread basis in a few years. Global Cash is rolling out ATMs that act as self-redemption units, allowing gamblers to redeem value left on a slot machine, without cashing out metal tokens & redeeming those tokens for cash at a cashier window. The technology was developed through a partnership between Global Cash & Toronto-based NRT Technology & Sparks NV-based Western Money Systems, a manufacturer of slot machine ticket devices to redeem value left on slot machines. The redemption device is an extension of the company's so-called '3-in-1 rollover' ATM, which allows gamblers to convert an unsuccessful ATM cash withdrawal into a POS, signature-based debit transaction or credit card cash advance. The redemption machines have been placed in 8 casinos in Nevada, Idaho & Arizona, says Diran Kludjian, Global Cash. Global Cash expects to deploy more redemption machines toward the end of the year, Kludjian says. The machines have a bar code reader that scans a ticket dispensed from a slot machine. Users are not surcharged to redeem value at the machines as they are charged for other ATM transactions. The firm hopes to offer its 960 casino clients several ways for customers to bypass slot-machine vouchers, or even ATMs. Global Cash is in the final development stage of a device called EDITH, Electronic Debit Interactive Terminal Housing. Plans are to locate the free-standing kiosk near a row of slots, where gamblers can use their debit cards to obtain slot machine credits on printed vouchers to be scanned at slot machines. The machine is designed to keep gamblers at slot machines instead of pausing to search for an ATM to get cash. Global Cash so far has 6 agreements from operators to use the kiosk, which is expected to move to the pilot stage later this year. The EDITH kiosk evolved from Global Cash's Ticket Out Debit Device, formerly known as QuickPlay. That device essentially is a POS terminal attached directly to individual slot machines so gamblers can swipe debit cards to use slot machines. Casino regulators are wary of the direct-debit slot machines & the system so far is only being used at its pilot site, Casino Pauma in Pauma Valley CA says Tom Sears, Global Cash.

Cash-back at the POS versus the ATM 7/21 ATM-Market Cash back at the POS. It's a big concern for many ATM operators, but a recent study conducted by First Data, which operates Star, found that ATM operators should exhale a sigh of relief at least for the moment. The annual study, which First Data has been conducting since 1992, tracks consumer ATM/debit card use at the ATM & POS. 13,000 consumers were surveyed from 10/04 to 12/04 for the study. Monthly POS transactions have steadily climbed from 8 times in 2000 to 10 times in 2004. Consumers visited ATMs (to withdraw cash, print account statements, check account balances, etc.) only 7 times a month. Betsy Storm, First Data, said those figures are misleading, especially when they're not looked at individually. ATM use from 2000 to 2004 has fluctuated, but its usage hasn't plummeted. ATM use increased from 2003 - 2004, with more consumers using foreign ATMs. Most consumers reported visiting their issuing FI's ATMs 5 times a month in 03 & 4.6 times a month in 04. Their use of foreign ATMs slightly increased - from 2.7 times a month in 03 to 2.8 times a month in 04. So what does all of that mean for ATM deployers? That they need to be promoting their networks & using their ATMs for more than cash dispensing. 'What we can learn from this study is that the ATM is incredibly viable. I think it's important for financial institutions to think about some of the different things they could offer at the ATM, like balance inquiries & transfers between accounts. We want to point out the areas that they could improve & grow. That can all be beneficial to helping their interchange & to bringing people out of the branch, which will help the branch run more efficiently.' Cash back at the POS is not the ATM's biggest competition. Only 15% of POS transactions in 2004 included cash back, & the number of times consumers got cash back dropped from 2003 - 2004 in most parts of the country. But consumers' use of debit cards at the POS increased 6% from 03 - 04, with a majority of those consumers using their cards for purchases. Although cash is still king, consumers might have less need for cash, since using a debit-card for payment is becoming more popular & available. That's the way one operator at an independent sales organization in the western US, who asked to remain unnamed, sees it. Over the course of the last 5 months, his overall transaction volume has remained flat. The typical increase in ATM use, which begins in March & runs through August, hasn't been reflected in his transaction volume. The transaction lull is affected by many things, namely an increased number of ATMs in densely populated areas. But the use of debit cards at the POS is having an impact. 'Economic conditions could have an effect. But because the purchases are increasing with debit, & there is or could be less of a need for cash, then your need for cash to go buy something lessens to some extent.' The checks has lessened, to some extent, according to the study. The number of consumers who use checks has declined since 2001. In 2001, 48% of respondents said they made monthly purchases with

checks; in 2004, that dropped to 45%. Storm said those trends should not impact overall ATM usage. FIs in particular need to use their ATMs to offer more complementary services. 'Consumers are still looking for & are interested in the ATM. So deployers can look at these kinds of study results & find out how they can improve their networks. Consumers are definitely still relying on the ATM & it's important for financial institutions & ATM deployers to understand how they can continue that trend & offer the service that people need.' So what are some of the services that consumers found important to offer at the ATM? Balance inquiries on accounts & the ability to transfer money between accounts were 2 services that consumers said were 'most appealing.' 2 other options that came in a close second were the ability to make deposits at ATMs throughout the consumer's home state & the ability to print &/or view statements at the ATM.

Wireless POS a \$1b market *eMediaWire 7/25* Wireless POS terminals are a potential \$1b-plus market in the US, & have 12 unique market segments, Mercator Advisory Services reveals. The 12 wireless POS markets identified by Mercator include convenience stores, pay-at-table, single/multi-lane retail, boutique retail, taxi, temporary/specialty retail, restaurant delivery, law enforcement, fast food & sports/recreation. Most vendors offer wireless POS terminals, with GPRS (global packet radio service) terminals having an edge in transferring data at triple the speed of dial-up terminals. Retailers benefit from wireless POS terminals in being able to accept card payments at lower merchant fees, & in eliminating the need to use landline for card processing. Traveling retailers who pay up to \$100 per day for telephone access at a trade booth or temporary store may recoup an investment in wireless terminals within a few months. Mercator warns that 'terminal manufacturers may be missing the boat from a design perspective', & provides an overview of current offerings in *Wireless POS Market Segments, Size & Strategy*. The POS hospitality market represents a particular opportunity for wireless POS terminal vendors as many regional restaurant chains still rely on pens & pads to process orders. If an integrated wireless POS solution is installed however, restaurant management gains access to back-office functions while viewing table status & receiving sales reports. Restaurants are expected to add wireless POS functions to existing POS infrastructure & for this reason, most wireless POS components are devised for rapid, affordable integration with a separate POS platform.

Global stored value market to top \$5 trillion *7/22 epaynews* By 2010, Pelorus Group predicts that \$5 trillion of the global payments market could go to prepaid or smartcards & mobile payment technologies. To date, \$500b has been loaded onto stored-value devices & as this market takes share from cash, checks & other payment services, Pelorus expects the payment industry to be reshaped. Stored-value payment services will essentially be the same across the world, with Pelorus advising that prepaid markets will be bigger in undeveloped economies given the greater scope for growth. Bank accounts are held by up to 20% of individuals in undeveloped economies, versus a 60 to 80% rate in developed economies, & Pelorus believes uptake of prepaid services in these markets will exceed that in the US or Europe. Mercator reports that prepaid products in mature payments markets grew by 21% from \$110.7b in 2003, to \$133.9b in 2004. The open (non-proprietary) prepaid market grew by 91.6% from 2003 to 2004, with \$9.04b loaded. \$124.8b was loaded onto closed (proprietary) prepaid products in this period, with Mercator noting the open prepaid market to be growing distinctly faster. The US money & open gift card market grew by 255% from \$400m in 2003, to \$1.42b in 2004, despite potential instability from federal & state legislation & low margins in the industry. The payroll, benefits, employee benefits & partner incentives & the consumer incentive markets are meantime seen by Mercator as the most stable & profitable open prepaid market segments.

Contactless payments uptake *7/21 wirelessQinfo* ABI Research forecasted that 'the coming year will see a sharp increase in the number of contactless payment opportunities for consumers.' That forecast was an understatement. The market for near-field communications is seeing a surge in activity although 2006 will be 'the year of NFC.' These explosively-growing sectors are examined in detail in 2 ABI studies, *Near-Field Communications & RFID Contactless Payments*. 'The momentum in these markets is absolutely mind-boggling.' Contactless payment systems benefit consumers, who spend less time waiting on line & find transactions easier; they benefit merchants who can serve more customers & see fewer walk away from long lines. 'Consumers enjoy using RFID & quickly get comfortable with using it.' These technologies show a clear return on investment. So merchants, card issuers & card associations are all making heavy commitments to contactless payment programs. Chase Card Services is trialing its 'Blink' card, & other banks are expected to follow suit. AmEx has its Blue card. CVS is pushing its contactless system strongly, joined by the likes of Walgreens, 7-11, KFC, McDonalds & Regal Cinemas. Tens of thousands of reader terminals are being upgraded with contactless capabilities by VIVOTech & others. The level of interest from merchants is 'shocking & welcome' to companies providing the infrastructure. While the firmest commitments are seen in North America, interest is strong in Europe & Asian-Pacific countries, because such technologies can be deployed anywhere in the developed world. While card-based contactless payments hog the limelight today, 'Anybody who's looking at contactless payment is looking at NFC. Including First Data, G&D, GemPlus, Ingenico, Inside Contactless, JCB, Philips, Sony, Texas Instruments & VIVOTech.'

Other

Farewell, floppy notes *1/14/03 NewScientist* It always happens when you're in a hurry: vending machines reject your banknote because the corners are folded & dog-eared. DeLaRue has a simple answer. Banknotes already have watermark patterns, made by weaving the paper's fibres more densely. Watermarks are normally near the centre of the note, but putting them at the corners increases stiffness there by over 50%. Surface-embossing the watermark increases strength by 250% - so the corners no longer fold & flop.

Casinos lead the chip revolution *1/10/04 NewScientist* When rumours surfaced last year that the ECB was quietly planning to put RFID tags in euro banknotes to combat fraud & money laundering, privacy groups balked at the possibility that anybody with an RFID reader could count the money in wallets of passers by. While the rumours have not been confirmed - or denied - a new generation of casino chips with built-in RFID tags is giving an insight into the way banks & shops could keep track of real money if it were tagged. The chips will be launched later this year & will allow casino operators to spot counterfeits & thefts, & also to monitor the behaviour of gamblers. RFID tags are tiny silicon chips that broadcast a unique identification code when prompted by a reader device. The tags do not need batteries, since they simply modify the radio signal fired at them by the reader. The readers work over distances ranging from a few centimetres to a few dozen metres, depending on the type of tag. Counterfeit chips have long been a problem for casinos, & houses routinely mark their chips with inks visible only in infrared or ultraviolet light. Embedded RFID tags should make the chips much harder to counterfeit, & placing tag readers at staff exits could cut down on theft by employees. The tags could also help casinos manage large-scale theft. If a large stash of chips goes missing - after a table is overturned in an argument -

casinos sometimes have to change their entire stock. This is unpopular with gamblers, since any chips that they haven't cashed become worthless. RFID tags would allow the casinos to identify stolen chips without the expensive process of restocking. Aside from improving security, the tags could also be used to track how people play in a casino, says John Kendall, Chipco International, which is making & selling tagged casino chips. The tagged chips would allow casino operators to keep tabs on the fortunes of every gambler on their premises, recording the stakes placed by each player along with their winnings & losses. American casino operators routinely monitor gamblers with security cameras, just as retailers monitor stores for shoplifters. The casinos want to check that big winners are not cheating the house, & to identify lucrative 'high rollers' & encourage them to keep playing by treating them to free meals, show tickets or hotel rooms. But this monitoring has to be done by human observers & is haphazard & unreliable. Chip tracking could dramatically improve the process. Tagging banknotes would require a much smaller & thinner tag than those used in casino chips. A leading candidate is the 'Mu' chip launched last year by Hitachi, which is just 0.4 mm square & 0.1 mm thick. The tag can only be read from a few millimetres away, which would allow banks & stores to check the validity of notes without letting snoops spy on the contents of your wallet. Details of a joint project between Hitachi & ECB to put RFID tags in euro notes were reported last year, but the ECB refuses to comment on the security features of the euro. Putting the tags in notes would be difficult because of the wear & tear currency has to withstand, says Mark Roberti, *RFID Journal*. 'Embedding a hard silicon device with a flexible antenna in money is a challenge.' Roberti expects privacy advocates to object strongly to anything that would let people track an individual's spending. 'I do not expect to see US dollars with RFID tags in my lifetime.' Europeans may not have so long to wait. The use of RFID tags is set to grow dramatically. Although the idea behind the tags has been around since the WWII, the devices themselves were big bulky & expensive. In the last few years, however, improved manufacturing techniques have shrunk the tags, while economies of scale have cut prices to only a few cents. Last year, the US Department of Defense began a \$275m programme to track military shipments using RFID tags, & the US retailing giant Walmart announced plans to tag pallets in its warehouses by 2005. Many other retailers & manufacturers have also begun to test the technology to keep track of stock.

Corporate data losses drive business in encryption tech 7/22 DJ The rash of consumer information lost or stolen at companies including BofA & Time Warner has left Congress & consumers critical of how enterprises deal with confidential data. But the highly publicized data loss is signaling a boon for start-ups focused on security & encryption technologies. 'This has gone from something a year ago, intellectually people were concerned, & today everyone is opening their wallets,' said Barbara Nelson, NeoScale Systems. NeoScale's technology uses electronic keys & elaborate algorithms to turn confidential data into unreadable gobbledygook. When the company launched its encryption appliances 3 years ago, enterprise customers had little incentive to spend time, money & processor power encrypting back-up tapes that they would rarely, if ever, need to use. 'We felt there should be a market, but it wasn't clear when it was going to happen,' said Barry Eggers, Lightspeed Venture Partners & a NeoScale director. Lightspeed & other firms - including Advanced Technology Ventures, Bay Partners & Sevin Rosen Funds - have put about \$43m into the company in the past 5 years. The investment seems to be paying off, with NeoScale targeting cash flow positive for early next year, & most customer growth coming from financial services, health care & government sectors. Validating the market, in one of the largest deals last quarter, publicly traded Network Appliance bolstered its security offerings by acquiring encryption start-up Decru Inc for \$272m in cash & stock. Decru, whose products, like Neoscale's, protect back-up data, raised \$45m in venture capital prior to the acquisition, & had worked with Network Appliance for a year to help customers comply with regulations like SarbOx. 'Publicity has driven a dramatic amount of awareness in the idea that data-at-rest is vulnerable & high-value,' said Nick Sturiale, Sevin Rosen Funds & NeoScale director. 'There's been a huge up-tick in the funnel & in bookings.' Eggers agreed. 'Encryption is insurance that they don't get in the press, that they don't break any laws & that they protect customer data.' Recent incidents range from tapes lost in transit to data theft by hackers. In May, storage company Iron Mountain reported that it lost tapes containing information on 600,000 current & former Time Warner employees while the records were being transported to off-site storage. Iron Mountain has come forward about similar instances of lost tapes, & has repeatedly suggested that customers encrypt their data so that the contents of such tapes will be difficult to read by unauthorized people. Enterprise Strategy Group, Milford MA, estimates that 40% of storage managers are now reviewing their security procedures or looking at encryption technology. In a 2004 survey, the firm found that only 7% of organizations always encrypt backup tapes, while 60% never encrypted tapes. 'It's been, 'we don't need good security, we need good-enough security,' & I think historically people have misjudged what good-enough security is, & that's why we're suffering,' said Jon Oltsik, ESG. Oltsik said that while companies are renewing their focus on data security, things are changing slowly. 'I'd say more people are looking to access the risks in their data security. & they're starting to evaluate technologies...they're scanning their applications, doing a better job of access control, probably looking to encryption.' In its recent cases of data theft, LexisNexis cited misuse of IDs & passwords from customers. & employees apparently were part of a plot to pilfer financial records at both Wachovia & BofA. In May, the banks were forced to alert 100,000 customers when NJ police charged a group of people - including employees of the banks - with a plot to steal financial records. BofA said in February it had lost computer backup tapes that included data on 1.2m US government employees. This month the bank announced a new online security system created by PassMark Security, a venture-backed start-up in Redwood City CA. Backed by Menlo Ventures & Diamondhead Ventures, PassMark designs technology to prevent phishing attacks, keylogging scams & other fraudulent online attacks by providing multiple points of user authentication. Betty Riess, BofA, said her company is working to eliminate the risk of lost backup data altogether by transitioning to electronic vaulting, where data is stored electronically & not on tape or disk. BofA is testing several encryption products & since IIIQ 2004, all data exchanges with credit bureaus have been encrypted & sent electronically. While encrypting backups can resolve problems of lost or stolen tapes, it does nothing to protect against insider theft, where employees with virtual keys or passwords can decrypt data or access confidential information while it's in use, before it's protected. What data to encrypt, however, can be tough to determine especially when companies look to protect portions of active databases. Encrypting data-in-use is processor-intensive, & can slow down datacenter operations. When used in active databases, the technology therefore needs to be finely applied to a limited amount of data - operating as a last line of defense behind intrusion protection & other security technology. 'A financial service company - if you encrypted every transaction in the database - would fall to its knees & crash,' said Jack Hembrough, Application Security. 'Encryption is a blunt object. You can't just willy-nilly go out there & start encrypting data in use.' A number of start-ups, including Vormetric & Application Security, focus on protecting data-in-use, or selectively encrypting data like credit-card numbers. Application Security - which is backed by firms including Kodiak Venture Partners & Thomas Weisel Partners - provides tools designed to discover vulnerabilities, provide intrusion prevention & finally encrypt the most sensitive data. Vormetric's Reed Taussig says that the global nature of data today provides increased risk. 'The average mortgage is sold 5 times,' adding that information traveling through a number of companies is vulnerable to crime & simple human error. 'A lot of the stuff is just somebody dropped it off the back of a UPS truck, but a lot of loss is organized crime.' Vormetric's business is doubling each quarter, with clients concerned about protecting intellectual property from competitors, crime

syndicates, 3rd party customers & partners, as much as protecting consumer data. Large, publicly traded companies are paying attention to encryption technology. Storage Technology Corp., acquired by Sun Microsystems is building encryption capabilities into its next generation of IntelliStor products, due out in December. 'Security & encryption is definitely an area we are investing in,' said Brenda Zawatski, StorageTek. But for the most part, the increased attention will continue to bolster the bottom line for start-ups, especially as public companies partner readily with encryption companies offering turnkey solutions. Neoscale has technology partnerships with storage giant EMC & McData & the company is a member of HP's developer & solution partner program. 'There's no right or wrong way to encrypt the data today. It depends upon the budget & who has the motivation within the company.'

Where data thieves go shopping 7/26 *InternationalHeraldTribune* Along a crowded stretch of highway just south of central Miami is a shopping area that might be called the data theft capital of the US. Criminals have obtained the cardholder information of tens of thousands of customers at 4 major stores there, including the retail chain DSW Shoes. Recent investigations reveal that the thieves targeted stores with strong wireless signals & weakly protected data. While their exact methods are not known, they could have parked a car outside a store or set up in the local Starbucks, using a laptop computer outfitted with an ordinary Wi-Fi receiver. The thieves robbed the same shops again & again of premium card account numbers stored in their databanks. Then, after about a month or so they moved on - to another shop on the same side of the street. 'It was as if they would hit one, drive down the road, & find another,' said Bryan Sartin, Cybertrust, the security services firm that was called in after each of the incidents. Sartin is bound by confidentiality agreements not to reveal any details about the incidents he investigates. But his story illustrates a larger point: While banks & payment processors have been targets in the largest & most high-profile attacks in the US on customer data, security specialists say the payment system's most vulnerable points may be the estimated 5m merchants where cards are accepted. Unlike banks & other financial institutions, these merchants often lack the technological expertise & management attention to keep their customers' information secure. Credit card associations, like Mastercard & Visa, have been reluctant to enforce their own security rules, & the requirements for retailers to protect consumer data frequently fall through the cracks in government & industry regulations. 'The breaches at processors & Internet gateways are very few & far between. 95% of what you are seeing right now are data breaches involving e-commerce merchants & retailers,' & it is no longer just unsophisticated small shops or fly-by-night dot-com companies under attack. Well-known merchants with millions of records are also victims. To be sure, even the largest merchants do not have the treasure troves of cardholder data that a large bank or a payment processor might keep. Merchants also have strong incentives to protect cardholder information, since they often bear the cost of fraud through hefty charge-back fees. But at a time when data crimes are easier & more profitable than ever, they can be easy targets for thieves. 'The problems we are seeing with merchants are problems that many companies have in securing sensitive information,' said Jessica Rich, FTC. 'We are seeing a lot of sloppy practices.' The majority of the credit card terminals found at checkout counters now connect over the Internet, instead of by phone, to the Visa & Mastercard networks, providing a potential entry point for data thieves. 'I feel bad for some of the merchants we get involved with on a forensics basis because they really don't know what happened,' said Robert McCullen, AmbrionTrustwave, a Chicago firm that is the payment industry's largest data-security auditor. The terminals are installed by providers of software & services, & they do not always advise the merchants of the risks. Security compliance is another challenge. While banks are held responsible for the actions of the third-party payment processors they hire to handle their accounts, no federal rules require merchants to safeguard their data. The contractually binding security standards of Visa & Mastercard are the nearest approximation. But merchant advocates say that those industry standards are often so complicated that the average shopkeeper is unable to understand them. Security specialists say that some of the banks, which are responsible for ensuring that their merchants are adhering to data-protection policies, can be inattentive to security deadlines or unaware of those rules. Visa & Mastercard only encourage - they do not require - the vast majority of small & medium-size merchants to prove their compliance. Only 400 of the biggest retailers & a little more than 10,000 midsize merchants with a substantial online presence have that obligation. They must pass an annual security audit, some of which can be self-assessed, & conduct quarterly scans of their computer networks for vulnerable points. That means Visa & Mastercard require less than 0.3% of the estimated five million US merchants to certify that they are following the security rules. Many of those online merchants missed a recent deadline of 6/30. Steve Ruwe, Visa, said that many merchants 'are working toward compliance' but it was 'an ongoing event to get them where we want them to be.' Still, it was not Visa's main obligation to ensure merchants' compliance, but was the 'primary responsibility' of its member banks. Still, there are signs of change. The high-profile data breaches at stores like DSW Shoes, along with a recent unfair-practices complaint filed by FTC against the chain BJ's Wholesale Club have been warnings to the entire industry. Security auditors & consultants report that more merchants are inquiring about their services. A few of the larger card processors & merchant banks have sent letters to businesses insisting on security compliance; some make clear the possibility of fines. Others have started pressuring the application & service providers to educate their customers & certify that their software & terminals are secure. Visa & Mastercard are making the case to the merchants themselves. Last Wednesday, Visa said it was forming a partnership with the US Chamber of Commerce to sponsor seminars for small & midsize businesses about ways to prevent data theft. Sartin still expects to be busy. The crimes he saw at the 4 Miami-area stores could have taken place almost anywhere. He has even found Web sites listing the geographic coordinates of easy-to-target stores. 'Tell me, do you have a location in Miami?' Sartin now asks when a national retailer calls. 'Is it on the South Dixie Highway?' he adds, before a short pause. 'Don't tell me, is it on the odd-numbered side of the street?'



