

Digital Triskaidekaphobia is coming...

The TAWPI Great Lakes Chapter will meet on Friday, May 13th at the Chicago Federal Reserve Bank for the Spring 2005 meeting. Registration includes continental breakfast, breaks and lunch sponsored by OnBase, Laserfiche, Opex and Scan-Optics with presentations by 8 industry leaders including Dr. Paz Kahana, Mike Ottiger, Jeffery Green, Shirley Brown, Bob Schleyer, Larry Friedman, Herb Thiel and Mark Kielman. Entitled sessions:

- Form Leads, ARC Functions: Use forms processing to electronically convert checks
- Check 21, where is it?
- Imaging Efficiencies, Impacting Change
- Alphabetphobia, compliant response
- Reducing the cost of getting paid: Electronic check conversion with digital imaging
- First Strike, Change Approaches
- Sex: Now that we have your attention, a look at strategic insourcing versus outsourcing.

Even with a city-wide event that has consumed every Chicago hotel room or left only those with exorbitant rates, the Chapter has secured the Hampton Inn & Suites at 130 West Illinois in Chicago for \$130/night is available for 5/12 thru 5/15 and by calling the hotel directly at 312.832.0330, ask for "Federal Reserve / TAWPI" rate. Rooms released on 5/3.

To register or confirm your Chapter membership, please send an email to GLC@aqubanc.com. Registration is free to Chapter members, \$18/registrant for reciprocal organizations, and, \$45/registrant for non-members. Further information is available on www.TAWPIGreatLakesChapter.org.

Financial Services Clipsheet April 21, 2005

ARC for Business Checks???

Nacha may open ACH for back-office conversions 4/19 The business community's rapid adoption of check conversion has led to widespread use at merchants' cash registers & billers' lockbox sites. Will conversion at the corporate back office be the next frontier? One of the biggest sources of buzz at the Payments 2005 was a policy change that could lead to just such a development. Back-office conversion process is still just a concept. But bankers are expecting a faceoff with the popular remote-capture deposit systems being used in corporate back offices to convert checks into digital images & transmit them to a bank for processing. The choice would probably be easy for corporate customers, said Ted Umhoefer, Fiserv. 'The economics of ACH will trump image.' The idea of back-office conversion is still in the very early stages & may never be approved, but some companies are not waiting around. JPMorganChase announced a service that sidesteps the lack of a back office ACH rule by using 2 other ACH formats to bring the same function to the back office. Fiserv, is planning to roll out something similar in July. Mike Herd, Nacha, said its board has put a task force to work on developing a business case for a back-office ACH format. Though he could not say when the task force will be able to report back to the board, in the past similar projects have taken 3 - 6 months. Once the business case is complete, the board will review it & decide whether the economics merit a new format. If the answer its yes, the board could start drafting the new rule right away or arrange for a pilot for study. Back-office conversion would be similar to ARC, which enables lockbox operators to create ACH payments from consumer checks, & to point of purchase conversion, which retailers use to convert checks into electronic payments at the cash register A back-office ACH conversion would be very similar to the remote-capture deposit systems, according to Umhoefer. Remote-capture systems allow corporate customers to convert checks into digital images & transmit them to a bank. Some banks forward those files to a Reserve Bank or a check processor such as Fiserv. These transmit them to a printing site near the receiving bank, to which they deliver IRDs. The long-term goal is to route the images over image exchange networks & settle the checks electronically, though this is uncommon now. Remote capture has become one of the first imaging applications to hit it big since Check 21 took effect & Umhoefer said it is faster & cheaper than processing paper checks. The low usage of image exchange today means that almost all remote-capture images are eventually converted back into paper as IRDs, which are more expensive to process than electronic payments. Even when image exchange systems become more widely used, they will still be more costly than ACH. 'ACH is pennies, which is better than paying nickels for images & dimes for IRDs.' Another advantage is that banks are required to settle ACH payments before checks; IRDs & image files delivered via exchange networks are technically still considered check payments. If a customer's account does not have enough money to cover some outstanding payments, ACH transactions always go through first, so the checks are more likely to bounce. Fiserv announced iLink Remote Deposit, an image-based service that has built-in ACH capabilities. Banks' corporate customers must use the image component, but Fiserv will switch on the ACH functions as well in July, enabling companies to use the ARC or POP formats for back-office check conversion. This is the approach that JPMorganChase is using with its ACH Distributed Payment Capture service. Alan Koenigsberg, JPMorganChase, said the service uses the ARC & POP payment formats. One initial market is billers that receive checks from walk-in customers. Though these checks might have been run through the ARC process if they had been received by mail, the company's walk-in site is often separate from the lockbox. Rather than sending the paper check to the processing facility, the company could convert it into an ACH payment in the back office. Though ACH payments are more economical, a limitation is that they cannot be used with business checks. Under Nacha rules, only consumer checks can be converted into ACH payments. Koenigsberg said this is why JPMorganChase has combined the back-office ACH capabilities with its remote-capture system. 'For eligible items, we will convert them to an ACH.' The corporate customer will the business checks into images. 'At the end of the day, the clients don't view ACH & Check 21 as different things,' because both are ways to turn a check into an electronic payment. JPMorganChase developed the Distributed Payment Capture service last year, & began pilot testing in the third quarter. It has 8 customers plus 25 in the pipeline. Not all bankers

are convinced that back-office ACH will make sense. Woody Tyner, BB&T, said that in an informal poll of 10 bank executives, only 1/2 said they were in favor of the proposal. His company introduced an image-based remote-capture service last month, & a back-office ACH service would directly compete with it. Though he agreed that an ACH version would probably be less expensive, he is reserving judgment. 'I haven't seen the business case yet, so it's hard to say. It's still real early, & we don't know how this will shake out.'

Banking & Payments

Check 21: early adopters explain their check imaging processes 4/05 *windowsfs.com* When Check 21 was passed, E*Trade knew it wanted to be an early adopter of remote deposit technology, said Michael Tinley, the company's product manager for remote deposit. 'Our initial approach was a proof of concept implementation of the Alogent remote deposit solution in a low cost, low risk environment. To keep the initial cost down & the risk minimal, we initially elected to do a print of IRDs on the back end, & they were then captured through our conventional item processing workflow.' The low cost phase was successful & E*Trade is working on an interface to the back-end system so it can reap the operational & economic benefits of straight-through processing. The company is working on implementing the solution in all its financial centers. Alogent customers explained how they are managing the technology. In the case of remote deposit technology, financial institutions can allow clients who handle many checks to take advantage of the technology by giving them hardware for capturing & transmitting check images. The hardware works in conjunction with downloadable software. NetBank will inventory & manage the hardware as it inventories its merchant hardware & has made arrangements for hardware support, said Sonja Kennedy, NetBank. 'The support structure will be the same as merchant support - 24 hour replacement & we have been in contact with our technicians in the field for merchant support to support this hardware,' adding that its early days, so processes could change in the future. One of the biggest issues with remote deposit is that of image quality, particularly in relation to how it affects a bank's warranty risk. 'Once a financial institution takes an item & creates an IRD they take the warranties on that item. Pushing that out to the customer creates more of an issue because if the image quality is not there, if there are issues with that item, the warranty is on the financial institution & we do not have the original item to go back to.' In addition to selecting quality software, financial institutions will have to decide what to do when for some reason an image is of poor quality. 'We will solve image quality at the front line, where the customer will have to re-image or will have to mail the original to us at that point,' adding that the bank is not ready to start allowing customers to make corrections to images. Many of the early adopters are optimistic about the technology's potential for opening doors. 'Customer proximity to a brick & mortar branch becomes less of a factor. This opens up new customer opportunities,' said Carolyn Markowski, HSBC. Robert Coyan, Corporate One FCU: savings include reduction in costs related to printing, handling, storage, sorting transportation costs & back-end processing. With employees taking fewer steps to process checks, there is more time for interaction & sales at the branch. 'And, earlier entry into the payment stream will result in early clearing, problem resolution opportunities & early entry into the stream will result in earlier fraud detection.'

Check 21 spurs growth in electronic check transactions 4/19 *CUJ* Electronic check conversions by banks & CUs grew 6x in 2004, mostly because of the Check 21 & increased use of electronic payment systems. ACH payments grew 20% last year to 12b, which was driven by a 6x increase of ARC to 1.25b. Annual ARC volume grew by 1b payments & accounted for 54% of all ACH transaction growth in 2004. Internet-initiated ACH payments represented the 2nd biggest growth area, with 967m ACH debit payments, valued at \$300b made over the Internet last year. That's up 40% from 2003. 80% of Internet-based transactions were to pay bills; 18% were to transfer funds; & 1% were to make purchases.

Check 21 & consumer protection 4/21 *CUJ* A bipartisan group of lawmakers agreed they favor some kind of legislative or regulatory action to ensure that consumers benefit from shorter check clearing times enabled by the new Check 21 law. Rep. Carolyn Maloney, D-NY, told a panel of the House Financial Services Committee, she hopes to gain support for her bill that will shorten check-hold times to allow consumers faster use of funds that they deposit in CUs & banks with checks. Rep. Joe Baca, R-Calif., said shorter hold times are critical 'especially for those who live paycheck to paycheck.' But Louise Roseman, director of the Federal Reserve's division of operations & payment systems, told the committee it is far too early, just 6 months since passage of Check 21, to draw any conclusions on shorter check clearing or to take any actions to shorten hold times. Only 400,000 checks of the 50m collected by the Fed each business day are being converted to an electronic image, so far, Roesman testified. 'Ongoing improvements in the check-collection system have not yet been extensive enough to warrant a reduction in the maximum permissible check-hold periods, but we will continue to monitor development closely.'

Fund transfers & account aggregation 4/18 Several large banks let people transfer money online to or from an account at another bank, but some small competitors are taking that idea farther by letting people view information about accounts at other banks, & transfer funds, on a single Web page. The banks & CUs that are trying to create an online financial services hub for their customers hope the effort can drive up customer retention & fee revenue. 'It certainly puts our CU on a level playing field with the big banks,' said Alison DeTuncq, University of Virginia Community CU in Charlottesville. Her company was the first to install the Funds Transfer with Aggregation software from Digital Insight. The software collects summaries of a customer's accounts from multiple banks & displays the data on a page within the CU's Web site. The CU tested the software with employees for 3 weeks last month & expects to make it available to all its members 7/1. The NY funds transfer software company CashEdge, which has sold other transfer products to Citigroup & BofA, developed the new software at Digital Insight's request. Digital Insight has a dozen customers lined up; most of the current users of its banking products are small & midsize banks & CUs. Neil Platt, CashEdge, said that banking companies of all sizes have installed funds transfer or aggregation tools, or both. He could not think of a company that combines the 2 features on the same screen, nor could analysts from Watchfire GomezPro & TowerGroup. BofA & Wachovia have no plans to combine the applications. Michal Geller, Digital Insight, said interbank transfers are popular with bankers, because they tend to increase account balances. For Digital Insight customers, 70% of transfers are inbound, & on average, these customers keep 5% more money in their accounts than people who do not use transfers. Some banks impose a fee on outbound transfers, in part to encourage people to move more money in than out. Citi has reported an even higher % of inbound transfers, 80%, & charges a fee for transfers to other banks. Geller said that by adding aggregation, his bank customers hope to improve balances more & increase the fee revenue from outbound transfers. DeTuncq said that the aggregation feature may seem trivial at first, but that having information for multiple accounts visible on a single page can have a significant effect on users' behavior. Historically, bank customers who wanted to set up a transfer had to visit multiple sites to check account balances, but because the CU is adding aggregation to its funds transfer page customers have less reason to leave their primary online banking site. 'It drives stickiness.' Leslie Robinson, University of Virginia Community CU, said that when customers see the combined features on a single page, 'it really does kind of hit home - you don't have to go to any

of these other Web sites.' Chris Musto, Watchfire GomezPro, said that by offering online transfers, banks can present themselves as 'the best place to manage their cash, & therefore the best place to keep their cash.' Adding aggregation would increase the use of the transfer feature. Account aggregation is 'a feature that becomes useful when it is paired with another feature that it supports.' Someone with accounts at 2 banks whose Web sites offer interbank transfers might find the aggregation feature attractive. If only one of the banks' sites offered the feature, the customer might start using that one as the primary online banking site. Beth Robertson, TowerGroup, said that many large banking companies have online funds transfer & aggregation features, but not on the same page, & there is often no clear link between the pages. 'If an overall online banking platform is well designed, a user is not going to experience a lot of difficulty moving from aggregation to funds transfer.'

Company News

A&B Vending - Cashless e-Port in vending machines at roadside rest stops 4/21 PRNewswire A&B Vending, a major vending machine operator in the northeastern US, had begun fitting its machines at roadside rest stops with the cashless e-Port to offer consumers greater convenience & reduce theft & vandalism. 'We noticed that upon installing e-Port to allow credit & debit card vending, customer started using it immediately,' said Erich Markee, A&B Vending, which operates 3,000 machines. 'Customers have told us that they enjoy the credit card option.' A&B Vending has begun installing e-Port cashless at rest stops in New Hampshire & Massachusetts, primarily to overcome a high incidence of theft. 'By installing the e-Port credit card technology in our machines we not only are able to remove our change machines that are so vulnerable to theft but provide a higher level of service & convenience to the user. So far the feedback from our customers has been very positive & in fact we have added e-Port credit card technology as a standard offering in all of our new sales proposals.' 'There is a new sense of urgency emerging in the vending market place that if you don't offer your customers a cashless option, then you risk being left behind by your competitors who do offer it,' said Wendy Jenkins, USA Technologies. 'Many customers are telling us they are using cashless & Intelligent Vending as a strategic marketing weapon to build new revenue streams & open up higher priced, non-traditional vending opportunities. Some are building entirely new businesses around cashless vending, indicating growing demand.' A&B Vending reported that it had leveraged the benefits of cashless vending to attempt to win new accounts. 'We are fast becoming a global, cashless market, & the fact is, consumers today want to pay with their credit or debit cards. While consumers want convenience, vending machine operators want to penetrate new markets & grow revenue, while strengthening security. The market will grow cashless vending very quickly in the months ahead, & A&B will be among the leaders, reaping the benefits.'

AmEx contactless card 4/16 CardForum American Express will offer its Blue credit card with a contactless chip & antenna beginning 6/1, allowing cardholders nationwide to use the pay-with-a-wave ExpressPay product at participating merchants. From 6/1 'all new Blue cards will be issued with the contactless chip.' ExpressPay will be offered in the form of a tag that can be attached to a keychain. AmEx has tested the contactless tag & card in Phoenix since 7/03 with several thousand cardholders & 500 merchants. Francolini says customers & merchants like the speed & convenience of tap-&-go payment. No signature will be required with ExpressPay, & there will be a \$150 daily spending limit with the keychain tag to minimize fraud. AmEx decided not to impose a spending limit on ExpressPay when used with the Blue card because it would be confusing to cardholders to have a limit on tapping the card for payment but not for swiping the card's magnetic stripe. AmEx is developing a loyalty application for the ExpressPay chip to work with existing merchant rewards programs. AmEx is simplifying the ExpressPay logo so that it does not compete with the standard blue box containing the AmEx brand.

Checkfree earnings 4/21 Checkfree, the Atlanta electronic bill payment processor, said a continuing rise in business helped it beat analysts' expectations for the just-ended quarter. Its transaction volume should rise even more by September, when its longtime customer BofA adds the customers it acquired with FleetBoston. But it said the conversion of Wachovia's online bill pay is taking longer than expected & would not contribute to earnings for another year. Net income jumped 103% from a year earlier, to \$15.6m, or 17c/share, in the quarter that ended 3/31. Revenue rose 23%, to \$191.2m. The quarter was the 3rd of its fiscal year. 'Underlying earnings' Checkfree's version of operating results, were \$36m, or 39c/share, it said. That topped Wall Street's expectations by 3 cents. Nevertheless, Checkfree's shares fell Wednesday - by 9.4%, to \$35.16, by 3:30 pm. Financial DNA said the price drop showed that investors were focusing on other parts of Checkfree's business, such as international expansion. Checkfree had a strong quarter, Financial DNA said, 'but with the equity markets now focused on inflation & Checkfree signaling that big growth is likely to come from new markets overseas, the shares are moving south.' The company raised its estimates for the full fiscal year. It now projects net income of 53 to 55c, instead of the 46 to 50c forecast in the January earnings statement. 'Banks continue to get progressively better in bringing their customers online,' said Pete Kight, Checkfree. He cited US Bancorp, which announced last week that it had gained 1m online customers in the past year. The parent of US Bank said the number of active bill-pay customers had grown by 250% since it eliminated the fee for the service in 12/03. Kight announced on the earnings call that US Bancorp had signed a multiyear contract extension with Checkfree. This week BofA reported that it had 13.1m online banking customers at the end of the IQ, including 6.3m who had used the bill-pay service in the previous 90 days. David Mangum, Checkfree, said BofA, which acquired Fleet in 4/04, expects to convert those customers to its own Checkfree-powered bill-payment system by the end of September. But the Wachovia conversion will probably not be finished until 6/06 - 3 months later than originally expected. As a result, it will contribute little to Checkfree's earnings in the next fiscal year. 'What you're dealing with is a very complex migration. It's much bigger than just an EBP migration.' Checkfree will lose a customer, Zions, in the September quarter. In January the Salt Lake City company announced that it would switch to the #2 bill-pay provider, Metavante.

Fiserv PCS & InsightAmerica 4/18 Businesswire The Precision Computer Systems/Fiserv & InsightAmerica will offer a solution that verifies customer identities before a financial institution provides services. InsightID, a powerful identity verification solution, provides access to billions of public records from dozens of sources to authenticate a customer's ID. PCS, a top provider of core banking technology, & InsightAmerica, a leader in risk mitigation tools, formed this alliance to help prevent fraud losses associated with identity theft. 'Fraud prevention continues to be a priority for bank technology strategies across the nation,' said PCS' Mark Blankespoor. 'In addition to losses incurred due to fraudulent activity, regulatory penalties can impact the bottom line. This solution helps alleviate the financial risks our clients face every day.' InsightID provides feedback for new accounts staff to verify a customer's ID by cross-referencing given information (e.g., name, address, SSN) against data from public information databases. The module's analytics recognize inconsistencies that might indicate fraud. 'InsightID simplifies decisionmaking & enhances customer service for our clients. It complements our suite of products with its secure, fast & easy navigation.' Integrated into PCS's Deposit Platform, InsightID will be made available to PCS's base of 750 financial institutions later this year. InsightID aids with USA Patriot Act compliance by validating a

customer's ID against government watch lists, including OFAC. 'We're excited to join forces with PCS,' said InsightAmerica's Lee Sands. 'By incorporating identity verification with InsightID during the new account process, bankers will protect themselves from identity theft fraud losses.' InsightAmerica is a leader in providing sophisticated access to public record information. InsightAmerica offers a suite of industry-customized, easy-to-use, analytically enhanced solutions built on low-cost, open-standards hardware & software. With reliable access to hundreds of national & state-specific databases, including identity data, property, addresses, phone numbers, motor vehicle & criminal records, InsightAmerica provides the broadest access to data in real-time & batch mode.

Fiserv bank conversions 4/19 *Businesswire* Fiserv announced that its CBS Worldwide unit - on the heels of 24 months of high-volume sales activity - completed 9 extensive conversions in 2004 & has scheduled 11 additional conversions for 2005. The busy conversion schedule includes new clients moving to the Comprehensive Banking System (CBS) & existing clients bringing newly acquired banks onto their CBS platforms. In a weekend in February, Fiserv CBS Worldwide completed conversions for \$13.7b Ohio Savings Bank & \$4.7b Central Pacific Bank/City Bank, while supporting \$56.5b North Fork Bank as the institution converted newly acquired GreenPoint Financial. Dave Santi, Fiserv, said that with strong sales momentum over the past 2 years, the organization took steps to prepare itself to simultaneously manage multiple large & complex conversion projects. 'Fiserv CBS Worldwide led the industry in new core sales to institutions with more than \$1b in assets in 2003 & 2004. Our challenge was to turn those new sales into smooth conversions & happy clients.' Conversions include: Ohio Savings Bank, a \$13.7b institution with 55 branches. The bank converted to Fiserv CBS in 2/05. Principal Bank, a \$1.2b bank that converted in 7/04. Texas Capital Bank, a \$2.6b bank based in Dallas, that converted to Fiserv CBS in 5/04. Keystone Nazareth B&T, 2 separate conversions from entirely different platforms - \$1.2b Keystone Bank & \$642m Nazareth B&T. Nazareth B&T converted in 2/04 & Keystone Bank converted the next month. Bank of Stockton, founded in 1867 & running on a proprietary system. Conversion of this \$1.4b bank is planned for IIQ 2005. Bank of Stockton then will convert 2 divisions - Modesto Commerce Bank & Turlock Commerce Bank. Treasury Bank NA, a \$46b subsidiary of Countrywide Financial that is experiencing rapid growth. Conversion is planned for IIIQ 2005. Community CU, a \$1.8b CU serving 220,000 members in Dallas/Fort Worth. CCU plans to convert in IIIQ 2005. Central Pacific Bank, a \$2.5b existing CBS Worldwide customer that acquired \$2.2b City Bank, a Fiserv CBS Worldwide client. City Bank accounts were converted from CBS outsourcing to an in-house platform in 2/05.

Jack Henry earnings 4/21 *CUJ* CU outsourcer Jack Henry & Associates said Thursday several corporate acquisitions helped boost its fiscal third quarter earnings by 19%, to \$19.4m, or 21 cents a share. Third quarter revenue advanced 12% to \$134.4m. For the first 3 quarters of its fiscal year Jack Henry reported a 16% rise in revenues to \$394.4m, & a 20% increase in net income to \$53.8m, or 58 cents a share. Over the past year Jack Henry has gone on an acquisition binge, with deals for TWS Systems; the SERsynergy division of SER Solutions; Optinfo; Verinex Technologies; Select Payment Processing; & Banc Insurance Services.

JustChex return solution 4/18 *JustChex* JustChex, LLC, a leader in on-demand processing of returned payments, is offering electronic RCK/PPD & RCK/Draft as a private label online solution. The on-demand processing platform automates the returned check, ARC & ACH process. It provides formatted secondary collection files. These processing services are provided at competitive per transaction rates. Clients of the transmodus processing partner can access this secure online solution to view & download real-time reports, submit an item, or utilize one of many online CRM tools that includes the option to issue a real-time customer refund. 'It's no secret that check processing has become a competitive business. That is why we are always open to explore ways to improve our processing efficiency. When we looked at transmodus I liked the fact that we could try it out first with a few clients before making any real commitment. That gave us the time to confirm any cost reductions, improved processing efficiencies & quality of services before moving more clients over. We were able to cut our cost per transaction by more than half & provide our clients with a better solution & with more service options by converting to transmodus. Our client sites are private labeled so when they login to view real-time reporting they see our logo, our message & our customer service contact information. This has been great, I can't imagine going back to the processing methods we used previously,' according to Jake Aidlin, protect-a-check. The cost & time to initiate the private label service are minimal. In most cases, processors using popular check collection software can transfer their data & resume processing without any down time.

KeyCorp, Alogent & remote capture 4/20 *Businesswire* KeyCorp has successfully implemented one of Alogent's Remote Deposit Automation solutions for automation of corporate check deposits. KeyCorp customers can capture images & data & transmit balanced deposits directly to the bank without leaving their businesses. Benefits of this remote capture solution include improved deposit preparation, fewer trips to the bank, extended deposit windows & the potential for better funds availability. KeyCorp customers have processed 3,500 items on the system. The Remote Deposit Automation solution implemented by KeyCorp includes Alogent's Sierra Xpedite Remote Deposit at remote business locations integrated with Sierra Xchange at KeyCorp processing centers for Straight Through Check Processing. Sierra Xpedite captures, validates, & manages deposits at all points of presentment including branches, ATMs, cash vaults, merchant & corporate client locations. Sierra Xchange is a virtual check processing engine, which collects transactions from distributed points of presentment, applies workflows, & intelligently routes image, data, & paper to endpoints based on unique business rules. KeyCorp disclosed that the total remote capture deposits from the phase one roll out is \$28m in just over 3 months. According to Mike Barnum, KeyCorp, 'Alogent's solutions are aligned with our strategy for managing check processing in the post-Check 21 world. Alogent's platform has enabled us to improve our efficiency while optimizing our delivery of superior service to KeyCorp customers, regardless of how they choose to deliver deposits to us.' 'Our partnership with KeyCorp builds on the leadership we have established in Straight Through Check Processing,' Brian Geisel, Alogent. 'Taking deposit automation to remote points of presentment outside the bank itself enables KeyCorp to enhance revenue, improve customer retention & accelerate new customer acquisition through differentiated service. We are pleased to be able to work with them to meet their Check 21 goals & beyond.' 'Distributed image & data capture are critical elements of our processing strategy,' said John Chinn, KeyCorp. 'Alogent was the logical choice for KeyCorp, because the company not only had technology solutions that managed the capture, distribution & processing of items, but integrated intelligent workflows around the receipt & exchange of those transactions. This solution will accelerate the process of check capture & forward presentment, solidifying KeyCorp's position for maximum benefits from early item truncation.' Alogent offers a suite of Sierra Xpedite-based remote deposit products, including Sierra Xpedite Remote Deposit Plus & Sierra Xpedite Virtual Lockbox, which are tailored to the volume, workflow, device, & functionality needs of the financial institution & its merchant & corporate customers.

Mitek & check fraud GreenSheet 4/19 In the movie *Bandits*, Bruce Willis

& Billy Bob Thornton play 2 real-life bank robbers who, on their way to Mexico after breaking out of prison, devise some farfetched capers to separate several banks from their customers' cash. One involved coming up behind a bank security guard & sticking a Magic Marker in his neck to make him think it was a gun. That's entertainment. The true & fictional tales of crooks who make their getaways amid squealing tires & gunfire, who don ski masks & pass notes over the counter to the teller or who make fingers in their coat pockets look like weapons are good stories & create legends out of thieves. But bank robbery is bank robbery, & it's no laughing matter. These days crooks get away with far more stolen money using ball point pens, high quality check stock & laser printers than they do holding up tellers at gunpoint. Check fraud is one of the fastest growing crimes in the country, but the exact amounts lost by banks & financial institutions are difficult to estimate. There are the actual cash losses to tally, & the less obvious costs involved in processing each of the roughly 40b checks written each year, including expenses for fraud prevention procedures & labor. Some estimates put totals from fraud loss for financial institutions at \$800m in 2002. As larger banks rally resources to combat check fraud, criminals have aimed their sights on small community banks, which saw losses triple between 1997 & 2001, & mid-size banks, where losses doubled in that period. Enter Mitek Systems, Poway CA that develops forgery detection solutions including image-based automatic fraud protection & recognition technologies. Forged signatures were the single largest category of check fraud losses for commercial banks in 2002, comprising more than 16.9% of total cases. As criminals acquire sophisticated tools & methods, losses from other types of fraud, including counterfeit checks, are on the upswing. Fake checks & forged signatures account for more than one-third of all check fraud losses. Mitek has several products on the market that provide solutions to verify signatures & authenticity of documents, including recognition engines & forgery detection, imaging & forms processing solutions. Working with an established global network of affiliates, Mitek's goal is to provide customers with tools to reduce losses from fraud & speed the accurate evaluation of checks. The company's technologies help banks of all sizes improve the way they process checks; although the systems work on different levels, they are very complementary to a bank's fraud protection program. Murali Narayanan said that Mitek focuses on developing image-based diagnostic tools to prevent signature forgery & counterfeit checks, growing areas of concern especially for small & mid-sized banks. An ABA report on check fraud showed that even as check volume goes down, check fraud goes up. 'Check fraud is so easy, with all new technology. Law enforcement are so busy with other things. & the penalty is relatively light; if you rob a bank at gunpoint & take \$100 from the teller, you can be arrested & put in jail. But you can write a check & withdraw thousands & go unpunished.' Less than 5% of community banks today are deploying any kind of technology to combat check fraud, & criminals have found this loophole. Existing fraud prevention technologies are expensive & difficult to use; they've all been designed for the big banks. Small community banks have to manually examine checks. Because these banks process 20,000 checks a day on average, they can only look at 300 - 400 checks of higher values. Using old-school techniques like holding checks up to the light, looking for alterations or verifying them against a signature card on file is very slow & labor intensive. 'It's very limited, because you don't catch a lot of fraud like that.' 3 community banks that have installed Mitek's FraudProtect System are now able to analyze all the checks they process daily & are catching fraud they never caught before, including more bad signatures & bad checks of lower dollar amounts. Designed primarily for community banks with asset sizes of \$10b & below, FraudProtect is scalable, & banks of all sizes can use it. 'Our value proposition to the community banks is that this is the same technology used by BofA. We say we're going to give this technology to them in a format that's easy to use & maintain & is very affordable.' In a 15-week pilot completed by fall 2004, BofA used Mitek technology to process 41m checks. BofA was able to identify fraudulent checks with average amounts of \$500 - \$600, totaling \$2.4m in southern California. Banks do not have to invest in any additional equipment to implement FraudProtect. A PC on the bank's network communicates with existing imaging systems to process up to 8,000 checks an hour. FraudProtect looks at signatures on checks that were processed recently, rather than comparing to old signature cards on file, for better accuracy. With Check 21 now offering banks the option of truncating checks, another aspect of accuracy in checks is important, too: high quality images. If a bank chooses to truncate checks, the paper documents are destroyed & the bank instead uses an image of the check through the process. As a result, fraud detection is now based on those images; established tools such as water marks are now irrelevant in the Check 21 environment. Other tools, including signature verification, become essential. ImageScore uses neural networking algorithms to test each image against potential problems. These include partial images, excessive skews & piggybacked images. ImageScore issues a quality score, which determines the usability of the image. Without a clear, legible check image, an electronic transaction can't be completed, archived or, in instances of disputes, proven or authenticated. The bank's liability, & likelihood for fraud, increases. FraudProtect & ImageScore satisfy 2 separate but related issues in check imaging. In a bank's workflow chart, ImageScore would be a component of item processing & archiving & FraudProtect would fit into the fraud & risk management area. Mitek's core competency is creating the technology for the highest quality image production & then backing that up with the highest level of analytical tools. 'We believe we are in the best position to set the gold standard for forgery & counterfeit check detection. Our strategy has been to go directly to a few banks to learn, but grow the business through partners. Our partner relationships are important. 'We are a unique technology company; we provide cutting edge technology that solves real problems for financial institutions. We worry about innovation, customer needs, & follow through after the sale. That's where our strengths are.' That's why the company's relationships with its reseller channel partners are so critical to its growth. A company the size of Mitek (8 of 40 employees hold PhDs) lacks the channel depth & breadth to cover the huge space that financial services encompasses, Narayanan said. But through a global network of OEM & channel partners, Mitek's recognition-based solutions process 8b checks & other documents per year for a variety of customers in a growing market. 35% of all checks processed in the US incorporate some form of Mitek's technology. Mitek's Channel Partner Program provides marketing collaboration & sales expertise in imaging & data capture for agents looking for ways to expand their suite of offerings & fulfill their customers' needs. Channel partners receive leads, free technical support, sales & product training, demo software & a Mitek representative. On the drawing board are new solutions to stop fraud at any point of presentment, when & where the fraud occurs. Many times this is at a retail store, where the merchant has no way of determining whether the check is legitimate or not. In a partnership with Harland, Mitek will complete a pilot of technology for rollout by mid-2005 that will give merchants such a detection tool. The system analyzes the signatures on a customer's checks over time & through a secure encrypted code, prints a bar code when Harland prints new checks. Merchants scan the check, read the bar code, capture & analyze the signature comparing it to the information on the bar code, & receive a warning if the check is fraudulent. Harland will make a \$1.5m equity investment in Mitek, expanding the relationship & Mitek's growth potential. 'Our goal is to prevent fraud in all financial transactions.'

National Bank of Arizona - remote deposit 4/20 PRNewswire National Bank of Arizona's Keith Maio has announced introduction of Remote Deposits - an electronic check clearing system for businesses which allows them to make deposits from their office. National Bank of Arizona is one of the first banks in the nation to offer a product of this kind. 'Our partnership with Arizona businesses extends beyond loans & deposits, we believe in creating innovative tools to help customers succeed. With Remote Deposits our customers should realize significant operational savings &

improved funds availability.' Powered by software from NetDeposit, Remote Deposits was made possible with the implementation of Check 21. Businesses may use Remote Deposits as an alternative to visiting a bank branch or using a courier service to make non-cash deposits. Remote Deposits equipment & software allows businesses to scan checks from their place of business & create an electronic image which is transmitted to a central processing center & converted into a substitute check. The substitute checks are then presented for payment at the appropriate paying institution. Remote Deposits technology is a convenient, cost-effective remittance-processing alternative for businesses, creating improved funds availability & reducing float time. 'Remote Deposits is another example of the innovative business products National Bank offers to assist our customers with the success of their businesses. This revolutionary technology presents an opportunity for our customers to benefit greatly from Check 21.' Remote Deposits is ideal for business customers located in rural & metro communities. It is a secure system that eliminates the physical transfer of checks, reduces manual processes involved with deposit preparation & provides for online image storage & research of all checks deposited.

National City & Union Bank of California, SVPCo & image exchange 4/20 PRNewswire SVPCo announced that National City & Union Bank of California are now exchanging check images over the SVPCo Check Image Exchange Network. The SVPCo Check Image Exchange Network is the nation's premier image exchange network, enabling financial institutions to perform a variety of check image clearing & settlement functions. The 3 entities involved in the exchange of images use technology supplied by VectorSgi. 'The launch of this image exchange is a major milestone that is the result of outstanding teamwork between Union Bank of California & National City,' said Bill Christensen, Union Bank of California. 'Image exchange represents the future of the check clearing business in the US.' Connie Rose, National City, said: 'Early adoption of image exchange has positioned Union Bank & National City to reap the benefits of image-based presentment. Continued associations between financial institutions who believe in the value proposition of image exchange will drive efficiency & cost savings into bank operations. Pursuing Image Exchange through the SVPCo Check Image Exchange Network has proven to be an excellent starting point. SVPCo is an industry leader in terms of the processes & infrastructure to support image exchange for member & customer financial institutions.' The exchanges are being conducted through SVPCo's Distributed Traffic Agent (DTA), a solution developed with VectorSgi, one of its strategic technology partners. The DTA enables financial institutions to transmit check images directly to each other in a cost-effective manner. The DTA works in conjunction with existing item-processing systems to link institutions into the network & enables institutions to directly exchange payloads of electronic images. SVPCo will operate a gateway DTA that provides service to multiple financial institutions. The initial exchange between Union Bank & National City was tested & deployed at a bank level as opposed to utilizing fixed account tables. The banks expect to grow the number of sites, images, & cashletters throughout 2005. 'We're pleased to welcome 2 more banks to the nation's safest, most secure check image exchange network,' said Susan Long, SVPCo. 'SVPCo worked with National City & Union Bank to streamline the implementation process to help both institutions begin realizing the benefits of check image exchange in just several months.' In March, Reserve Banks & financial institutions began exchanging images of checks using SVPCo's peer-to-peer image network. 5 of the nation's largest banks & a large, third-party service provider are connected to the SVPCo Check Image Exchange Network. Most of Clearinghouse's 19 bank owners are committed to begin linking to the SVPCo Check Image Exchange Network by 12/05. SVPCo's unique Check Image Exchange solution is a single, end-to-end system that provides unparalleled control, security & processing efficiency for transmitting check images & other data directly between participants in the industry. The network enables financial institutions to exchange images of checks peer-to-peer without a cumbersome central processing system thereby eliminating the expense of transporting physical checks. Electronic check image exchange is expected to create efficiencies for the banking industry through operational efficiencies & lower costs.

NCHA settlement processes 4/18 NCHA The National Clearinghouse achieved flawless results on a Statement on Auditing Standards #70 Type II Review providing its members & the industry added confidence in the security & reliability of the organization's settlement processes & controls during its time of significant growth. NCHA's clearing volume is up 70% from 3 years ago, approaching 1/2 that cleared by the Fed & 55% cleared in the private sector. NCHA's 2004 volume is up 23% over 2003 compared to an 11% decline reported by the Fed. Passing the SAS 70 Review assures members & the industry that this growth has not compromised the dependability & safety of NCHA clearing services. The SAS 70 Review is a standard used to measure the reliability of a service organization's internal controls & auditing practices developed by the AICPA. A Type I report describes the NCHA's description of controls at a specific point in time. A Type II report adds detailed testing of the controls over a minimum 6-month period. The Review focused on controls applicable to the NCHA's National Settlement System. Key control objectives included complete & accurate daily settlement activities, properly authorized & monitored system administration, protection of physical assets & hardware, adherence to Federal Reserve requirements, assurance of continuity of operations, & authorized access to settlement data & data center facilities. The number of financial institutions using the NCHA National Settlement System has increased over the past 2 years to 550 processing sites. Many of the institutions use the system in multiple geographical locations. One member uses the system in 21 different sites. A number of national members use the system to settle significant portions of all their check dollars that are cleared through clearinghouses. Risk & data security managers for any institution should find this SAS 70 audit report to be a very important tool to rely on in their ongoing risk evaluation & management. 'Secure dependable check settlement is important to our members of all sizes,' said Fred Redeker, NCHA. 'The results of the SAS 70 audit help to assure all member financial institutions & the entire industry that their Association is continually addressing these critically important service capabilities.'

Online Resources earnings 4/21 CUJ Online Resources Corp. reported that revenues surged 55% for its fiscal IQ to \$15.1m. That enabled the online banking & bill payment services provider to report a 5x increase in net income to \$2.4m, or 11c/share, compared to the same period last year. IQ was marked by the addition of 33 new CU & bank clients, making a total of 740 customers in the company's distribution channel.

PayPal grows business 4/21 Finextra PayPal, the e-mail funds transfer business of electronic auction house eBay, has reported a 44% increase in the value of total payment transactions handled to \$6.2b for IQ 2005. PayPal reported total payment accounts grew 57% to 71.6m. Active accounts were 22.1m in the quarter. Net revenues for the quarter were up 47% on last year at \$233.1m. 71% of payments traffic over the system originated in online auction sales. eBay's Meg Whitman pointed out that PayPal's user base exceeds that of Discover & is over twice the size of BofA's.

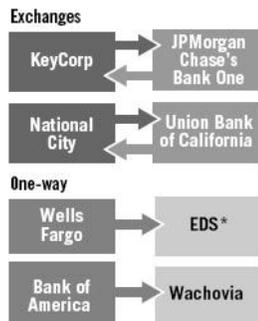
SVPCo update 4/21 2 more banking companies have begun exchanging check images across the network developed by SVPCo, but they are skipping a step that others have used to validate the system. National City & Union Bank of California transmitted their first images across the SVPCo Check Image Exchange Network last week. The 5 other banks that use the network have limited their exchanges to checks from fixed lists of customer accounts. National City & Union Bank are using routing & transit numbers, which can define bank units down to an individual branch, to determine which checks will be transmitted. Once the 2 companies approve a routing & transit number, every check from every account within that number will be sent across the network. Connie Rose, a senior vice president at National City, said its nightly volume on the network is quite low (about 200), because the 2 companies have no overlapping markets, & because National City is sending only images from its Michigan banking operation. The Michigan operation has 20 distinct routing numbers, & 'we actually opened up an entire bank,' but it is one of the smallest of the

Cleveland company's 5 banks. National City will begin sending

images from its other banks to Union Bank over the next 90 days. National City is processing the incoming images electronically. Bill Christensen, an executive vice president at Union Bank of California, said it is transmitting images from its California operation, its largest, but not from its Northwest operation. Union Bank is printing out the images from National City as IRDs for settlement, according to Christensen, who said he was cautious about switching from settling with paper IRDs to electronic files. 'We're just tiptoeing into the water. There's a lot more to go.' The small incoming volume from National City made Union Bank more comfortable in connecting to the SVPCo network, Christensen said. 'We knew that when we turned on the spigot, we weren't turning on a fire hose.' Union Bank's parent, UnionBanCal is majority owned by Mitsubishi Tokyo Financial. Susan Long, SVPCo, said its network has 3 other pairs of trading partners: KeyCorp & JPMorganChase's Bank One are exchanging images; BofA is sending images to Wachovia; & Wells Fargo sends images to EDS*, which prints them out as IRDs for delivery to receiving banks. The Reserve Banks are connected to the network. The nightly volume remains small, Long said; it topped 100,000 check images only last week. Monday night the network handled 138,851 items. She praised Union Bank & National City for opening up entire routing numbers to exchange. 'They didn't even bother with fixed account tables. That opens the floodgates' to a much faster increase of images. 'For us, it's significant, because it means more volume.' Rose said National City is eager to expand its exchange capabilities. It is in talks with several other banking companies & expects to begin sending images to the Fed in a few months. 'We are in a position to be a little more aggressive. Our only struggle is finding other banks that are in the same position.'

Trading Partners

Eight companies are now sending or receiving check images across SVPCO's network



*Printed as IRDs

	Today	Nirvana
Payment Element	<ul style="list-style-type: none"> Electronic for most mid to large companies 	<ul style="list-style-type: none"> Electronic on open platforms
Initiation	<ul style="list-style-type: none"> But on proprietary systems 	
Remittance	<ul style="list-style-type: none"> Mix of electronic and paper Proprietary formats Limited data allowed in standard electronic formats 	<ul style="list-style-type: none"> Electronic with standard formats offering rich detail similar to EDI but accessible to any size company
Settlement	<ul style="list-style-type: none"> Primarily paper 	<ul style="list-style-type: none"> Electronic
Infrastructure		
Format	<ul style="list-style-type: none"> Relatively limited use of EDI Proprietary/3rd party 	<ul style="list-style-type: none"> Standard
Connectivity	<ul style="list-style-type: none"> Proprietary/3rd party 	<ul style="list-style-type: none"> Open network, indifferent to messaging standard
Security	<ul style="list-style-type: none"> Proprietary/3rd party Advantage touted by closed networks 	<ul style="list-style-type: none"> Level at open networks comparable with closed ones

Vectorsgi - replacement for paper-based capture systems 4/21 Businesswire Vectorsgi, a Metavante company & provider of financial transaction applications, announced Vector:PICS, a payment information & control system designed to replace a financial institution's paper-based capture system & prepare it for the transition to a Check 21 environment. The product works as a long-term replacement for paper-based capture systems. The replacement can be implemented in steps or all at once. Vector:PICS builds on a bank's existing infrastructure, integrating with capture technology or image exchange components. Vector:PICS captures data & images from a variety of sources, including scanners, remote branches, other banks & corporations. 'Vector:PICS extends the capabilities of Vectorsgi solutions to deliver a complete environment independent of antiquated systems that will hinder growth & synergistic control in today's market,' said Sydney Hicks, Vectorsgi. 'As paper volumes decrease & electronic volumes increase, Vector:PICS furthers the migration from a paper-based world to an electronic world. It is a critical solution for a completely electronic environment, positioning banks to reap the benefits of image exchange & other forms of electronic payments.' Vector:PICS navigates a bank's transition to a total electronic network. With the solution, items clear faster, which mitigates risk & reduces fraud. Vectorsgi offers consulting & production support services to help banks optimize their current paper-based capture system while transitioning to being a full image exchange participant.

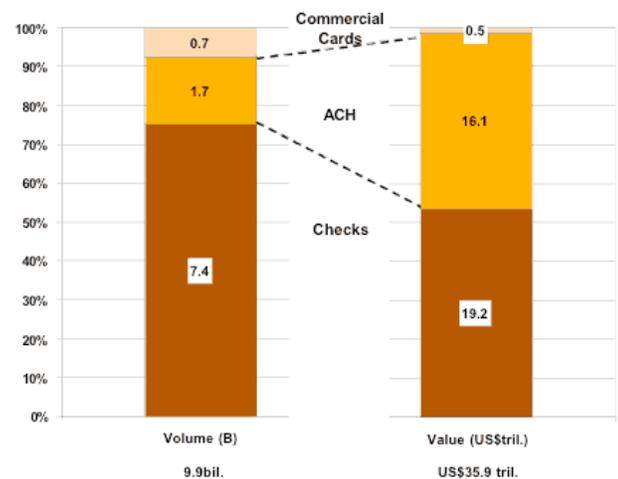
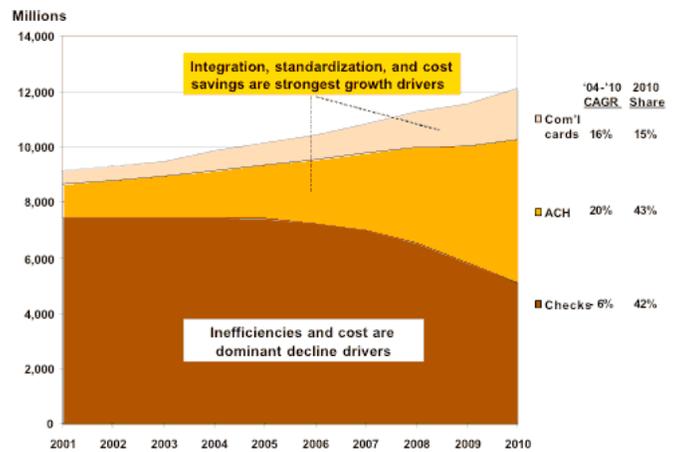
Vectorsgi - capture anywhere solution 4/21 Businesswire announced the Vector Capture Anywhere Solution has been enhanced to now include image capture at the teller line, the back counter, ATMs, corporate offices & correspondent banks. Capturing images at the earliest point of presentment enables banks to accelerate the benefits of check imaging by removing geographic boundaries - an advantage made possible by Check 21 legislation. The Vector Capture Anywhere Solution collects & balances image deposits electronically, streamlining item processing & extending deposit windows. This allows banks to offer increased funds availability & reduced float, regardless of time zone or location. Being able to have a remote capture option at bank branches, ATMs, corporations & correspondent banks can dramatically reduce transportation costs & eliminate the chance of backlog due to weather-related circumstances or unforeseen events. Consolidating all of a corporation's check images to a

single financial institution significantly enhances that bank's revenue while providing cross-selling opportunities & increasing customer loyalty. The Vector Capture Anywhere Solution presents a low-risk opportunity for banks to aggressively pursue a broader geographic footprint without the expense of additional branches. Vectorsgi has the distinction of being the only company that has verified low missing imaging solution rates - as low as one missing image out of 135m transactions. Experts at Vectorsgi anticipate similar performance with the expanded Vector Capture Anywhere Solution. The system is equally rigorous in dealing with images received from outside sources; it analyzes the quality of every file received & only accepts images that pass stringent usability & high quality tests. 'The Vector Capture Anywhere Solution positions banks to offer competitive customer service combined with trusted quality assurance,' said Sydney Smith Hicks, Vectorsgi. 'Our technology enables our clients to stay ahead of the check-imaging curve. Over the last year, 50% of the large banks that have made an image exchange decision have chosen Vectorsgi. The Vector Capture Anywhere Solution gives our current & new clients an opportunity to further complement their image exchange capabilities & expand their competitive position in the imaging market.'

E-Billing & E-Procurement

Purchasing card growth dramatic in programs adopting master agreements 4/19 *Businesswire* Expenditures managed via purchasing card programs have grown over the past 5 years at a compounded rate of 21%. This is due to the diligence of program directors who are deploying card payments in an increasing number of spend categories, with assistance from card issuers, to improve reporting & supplier acceptance. Transactional volumes over this same period have grown 15% per year, on average, according to AberdeenGroup. *The Purchasing Card Benchmark Report* demonstrates that companies that address new spend categories & supplier types, & embrace technology for reasons beyond employee & administration convenience, have seen the most notable program growth. The report reveals that despite the growth of purchasing card programs & the relative satisfaction of most programs' original charters, many program directors believe their programs have reached a plateau. 'Purchasing card programs are ready to come of age,' according to Jeff Pikulik, Aberdeen. 'A fresh approach can boost the value & significantly improve growth of P-Card programs. For too many users, setting & resetting program parameters & policy guidelines feels like progress, but greater business value & cost reduction opportunities remain locked in by paradigms of the original program scope. These models were created in the early years of P-Card programs, & they under-utilize modern workflow & data management tools now available' Aberdeen recommends purchasing card programs challenge program scope & expand the programs by addressing master agreement & contract pricing requirements, examining specific purchase order types that lend themselves to payment via purchasing cards, extending the program to service categories, & proactively exchange electronic payment remittance information on suppliers providing non-traditional, large project, or recurring services requirements.

B2B electronic payments 4/18 *gtnews* The adoption of e-payments is no easy task especially with the incumbent status of the check in B2B transactions. Industry, technological & regulatory trends will propel adoption but the real driving force will be the development of payment messaging standards. Despite the formidable incumbent status of the check in B2B transactions, its dominance will wane. Various industry, technological & regulatory trends will propel the adoption of e-payments. The economic interests of banks, third-party solution providers & corporations will align - overcoming the 'chicken & egg' syndrome of insufficient demand to generate supply & vice versa. The state of B2B payment processing today is a far cry from ideal. Companies continue to pay by check because it works satisfactorily, though not optimally. Accounting & auditing processes have been built around the check & it provides all the remittance detail anyone could want. The only trouble is that paying by check is a paper-based process that, while not 'broken', is increasingly cumbersome, expensive & unnecessary. It is financially inefficient. Check payment reconciliation is the most painful part for it can take 5 to 7 business days, which strains the working capital of any company. The only automated part of the process at most mid-size to large companies is payment initiation. Even for this, the fact that a proprietary infrastructure tends to dominate makes it less efficient & more expensive than the ideal state in which standards & open systems reign. The factors that will blow wind into the B2B e-payment sails will come from several directions. At the macro level, industry, technological & regulatory trends will propel the adoption of e-payments (e.g. development of standards & demand for financial transaction transparency & accountability). At the third-party level, banks & solution providers will gradually contribute to facilitating the adoption of e-payments. At the company level, numerous pioneers have been instrumental in the key areas, such as standards development, & have automated their financial supply chain. Of all the forces that will blow wind into the e-payments sail, the gale force will come from the development of payment messaging standards. Currently, XML-based standards are just beginning to leave the calm zone & generate a breeze. Over the next decade, they will build up power as corporations, banks & third-party technology providers promote & support their use. XML-based standards will become the EDI for the masses. Standards will reign because they offer superior data & information exchange. As has been proved in financial markets (e.g. FX) & in manufacturing (e.g. just-in-time), rich & fast information access translates into competitive advantage & revenue streams. In cash management, banks & 3rd parties that deliver rich remittance data that can be automatically reconciled along with the payment will win against their competitors. Several organizations



have been tackling standards development. They differ in terms of goals & participants. The rise of influential non-bank dominated organizations signals the fact that banks or bank-led organizations have not met all the financial supply chain needs of corporations, though they have made important payment- & treasury-related inroads. Leading torchbearers for next-generation, XML-based standards for payment-related transactions include TWIST (Treasury Workstation Integration Standards Team), RosettaNet & SWIFT. In the realm of remittance-related standards & transport protocols, RosettaNet stands out as a pioneer. TWIST & RosettaNet have proved to be effective & nimble, bringing together representatives of all interested parties-from financial institutions to corporations & technology providers-& lead the charge to fulfill their member corporations' needs. Although the 'win-wins' of standards ensure their development & adoption, stakeholders with proprietary systems face risks & potential. Hence, the development & implementation path is unsurprisingly arduous & at times contentious. Banks in particular have much to lose if they do not figure out how to harness the potential wins & mitigate the potential losses. Companies have everything to gain & hence are striving to influence developments in payment systems more than they ever have in the past. Global corporations (which stand to gain the most) are beginning to generate a demand-pull that banks are hard-pressed to ignore. Therein lies the key to adoption: economic gains for all participants that assure demand & supply align. The role that banks & technology providers play in the implementation of standards is crucial to the adoption of e-payments. Until the activities that precede payment are automated, e-payment is unlikely. The prerequisite for the migration to e-payments is automation of the financial supply chain, in particular electrification of rich remittance data (i.e. detail comparable to what EDI formats provide). These players are linchpins to adoption. The dynamics on the supply-side are complex & do involve players with different motives, resource levels, technological capabilities & appetites for risk. Banks have historically owned the payment business, but have tended to take a myopic view, focusing more on the payment piece & less on the data piece & caring more about short-run revenues to the detriment of long-run opportunities. Third parties have been gradually providing the data piece, but the ERP/accounting vendors have been slow to invest in solutions because of perceived lukewarm demand. The tide has been shifting as evidenced by the incorporation of SWIFTNet (SWIFT's internet protocol-based messaging platform) by several solution providers. These initiatives & others like them will help build the critical electronic bridge between accounting/ERP systems & payment systems. When it comes to e-payments adoption, companies (the 'demand-side') are scattered along the spectrum from the apathetic to the evangelistic. Evangelistic firms tend to have an electrification champion at the 'C' level (e.g. COO or CFO). This champion just gets it, from the hard dollar savings (reduction in FTE) to the soft-dollar gains (lower DSO which reduces working capital costs). Overall, several trends combined will sway companies to embark on financial supply chain automation projects. Currently, the companies that have taken steps to automate the financial supply chain & adopt e-payments have been motivated by hard cost savings. These costs are much easier to calculate than financial efficiency gains & are easily attributable to the actions of a particular department (e.g. accounts payable). While e-payments are not likely to take B2B transactions by storm, the wind in their sails will pick up over the next 5 years. Celent anticipates that the aforementioned trends will push B2B adoption of e-payments up to 58% of total volume by 2010. Beyond that, the winds will continue to push adoption to levels near those attained in Europe. .

Cards, ATMs & Networks

Cards & vending machines *Newsweek 4/18* Snacks are seductive. So is spending on credit. Put them together & you can really jack up sales at vending machines. Shoppers using a credit or debit card spend 75% more than they do at cash-only machines, according to a survey by a Philadelphia company that makes the technology. USA Technologies viewed more than 1m transactions at its clients' vending machines. It found plastic-users buy more. In a year, the plastic effect could boost a typical airport soda machine's take by \$6,000. Plastic opens the way for more nontraditional vending machines, like those selling cell phones or school supplies on college campuses. Those items cost more than pocket change.

The first ATM *4/19 DigitalLifeSingapore* The people who used the earliest ATMs were a small number of prostitutes & gamblers. According to Luther George Simjian, who conceived these hole-in-the-wall machines, this was because they didn't want 'to deal with tellers face to face'. Simjian had registered 20 patents in NY, for his brainwave beginning from 1939. He persuaded the entity now known as Citicorp to try it out, which it did. After 6 months, the bank pronounced it a failure; possibly because too few people used it. Although Simjian conceived the idea of the ATM, the credit of inventing the ATM went to John Shepherd-Barron, whose work is acknowledged by the *Guinness Book of Records*. His ATM was produced by NCR in Dundee & installed in London by Barclays in 1967. This, however, was still not the ATM as we know it today. Customers using this system had to buy cheques in advance from a bank teller. Each cheque would be chemically coded with Carbon 14 to uniquely identify the customer & only then could it be exchanged for cash. The beginnings of the first modern ATM were envisioned by Don Wetzel in 1968. Developed at a cost of \$5m then, the first prototype surfaced in 1969, with the first working version installed in NY at Chemical Bank. According to Wetzel, it was a cash dispenser only. It did not have any of the modern services of a full ATM: one that takes deposits, transfers money from checking to savings (and vice versa), & so on. A full ATM that did all that was only introduced in 1971. Early cards accepted by these machines used principles of radiation & low-coercivity magnetism that were swiped by a card reader. It was Jack Gebhart who conceived the idea of using a magnetic strip on bankcards for storing customer information. This card would then be read by a reader & processed by a computer.

California - new meters to deter vandals *4/14 BerkeleyArgus* New high-tech parking meters that accept credit & debit cards made their debut this week in downtown Berkeley. 31 of the solar-powered 'ParkEZ Stations' have been installed along Shattuck Avenue from Allston Street to Parker Street, on Center Street between Shattuck & Oxford & on Kittredge in front of Berkeley Library. The city spent \$322,000 on the new machines, & officials said they're worth the money. The city has lost up to \$2m annually due to broken & vandalized meters, plus all the parking tickets contested because of broken meters. 'This is one way to finding a solution to meter vandalism,' Berkeley police officer Joe Okies said. The new silver-&-black machines, which will replace 300 of the old-fashioned silver meters, will accept coins, Visa, Mastercard & debit cards. Motorists can prepay for a block of time rather than feed coins into a meter for a specific period. The machines will spit out a receipt that must be displayed in the car's window. If a station is down, the motorist can go to an alternative unit to print out a receipt. Police recently started cracking down on people who have battered & beheaded more than 5,000. The City of New Orleans is introducing debit & credit card payments for parking in an endeavor to generate increased revenues for the municipality & improve local parking facilities. 15% more parking revenues are expected from the card payment system that is integrated into the terminals, which will authorize & process credit card payments as required. The municipality plans to assess the use of prepaid debit cards & cell phones for parking in a move to reduce the volume of coins that need collection & deposit at the bank.

Connecticut - city offers smart alternative to cash 4/14 *YaleDailyNews*

New Haven will streamline the consumer experience as the first city in the US to use the new 'smartcard' payment system for parking & retail. Unveiled by Mayor John DeStefano, the system will rely on the smartcard, which can be used to pay for most parking meters, parking garages & small items from selected coffee shops & merchants on or near Yale's campus. The card can be bought & loaded with up to \$100 from a participating local store & later refilled. The new system, from Parcsmart Technologies & VeriFone, will be fully installed by mid-summer. 'New Haven is at the cutting edge of technology & technological innovation,' New Haven Traffic & Parking Director Paul Wessel said. 'Smartcards offer us the ability to use meters more effectively.' MOKA & Atticus Bookstore & Cafe will be implementing the cards, as will other area businesses. According to Wessel & Parcsmart's John Regan, the new system will not only benefit commuters in New Haven but merchants, city officials & tax payers as well. 'I think this is a classic win-win-win, everybody's better off. If a Yale student wants a \$3 cup of coffee at Atticus, it costs Atticus 90c for the student to put it on a visa card - with Parcsmart it's going to cost the business only 30c. Atticus Cafe makes out better. It will benefit taxpayers because it's a more cost-effective system to the city.' The system will not be mandatory for stores within the affected area, & store owners will choose whether they wish to accept the smartcard. According to Bryant Judd, owner of Marketa on Temple St, there are benefits to the new system. 'It looks like a pretty good idea & I'm hoping it'll catch on.' It will hopefully increase my business & bring more people in. Maybe they'll use the card & spend it here. I'm making a commission for every card I sell & for the money that's put on the card.' Stores owners are currently deciding whether or not they want to participate. In addition to alleviating costs to store owner & taxpayers, Regan said the motivating force of the program is to make the process of parking easier on all those involved. 'The real driver of the program is to make parking & consumer life in the city more convenient when paying for street parking,' Regan said. 'If someone walks into a store to change their \$5s, store owners often don't like it because it's extremely inconvenient. This new system is designed to remove all the coins.' Wessel stressed that the new system will be supplementary & will in no way infringe upon commuters who wish to pay for street parking with quarters. As part of the system, existing meters in the affected areas with meters will be replaced with ones that accommodate the smartcard in addition to quarters & New Haven's current voucher system. 'The smartcard will not displace coins. It's an option, not a replacement.' As a Hamden CT resident & owner of a car on campus, Alex Cohen '08 said he feels the new smartcard is convenient & that he plans on purchasing one. 'I get out of my car & realize that I don't have any quarters, & I normally don't feel like walking to a store to get change. I will definitely buy one.'

US - is the identity theft problem really that bad? 4/25 *Forbes* Fear of identity theft is driving shredder sales, but is the problem really so bad?

There's no more potent marketing device than fear-which neatly explains why vendors of shredders are raking it in. Shredder sales have grown 20% to 25% a year for the past 3 years, with sales of home shredders growing even faster, reports the School, Home & Office Products Association. The number of firms in the shredding services industry has quadrupled to 2,000 in the past 5 years. The fear in this case is fear of identity theft, helped along by recent federal laws that threaten class actions & other punishments against companies that fail to protect individuals' privacy through shredding or similar means. 'There is virtually no business that doesn't have to worry,' intones Robert Johnson, National Association for Information Destruction. Is identity theft that rampant? Much of the public is alarmed by reports that identity theft is the 'fastest-growing crime in America'; supposedly 10m people a year are victims. But that figure, which originated with FTC, appears to wildly overstate the problem. TowerGroup noted 'very few of the millions of ID theft events the FTC reports each year are true ID thefts.' TowerGroup says that in 2002, when the FTC estimated 9.9m ID thefts, the number of individuals who reported to the FTC's Identity Theft Data Clearinghouse that their identities had been stolen was more like 160,000. Huh? Turns out the FTC's definition of identity theft includes basic check fraud, credit card theft & other practices that are hardly new. Most of the 9.9m were just cases in which someone used someone else's established credit card. In these cases it makes more sense to speak of the swiping of someone's credit card number than the swiping of their identity. A pain? Yes. But not quite something to be cured with a shredder. Individual consumers aren't usually on the hook for more than \$50 in credit card charges, & often avoid even that. 63% of the FTC's 'identity theft' victims reported no out-of-pocket loss at all. Just 1/4 of the victims bothered to report the crime to police, & even fewer notified credit bureaus. The biggest loss from this sort of theft is probably in time, but even so, 64% of the FTC victims reported they fixed the problem in less than 10 hours, & 35% took care of everything in an hour or less. Less time than it takes to shop for a shredder.

E-Commerce & M-Commerce

US - worries about buying online 4/21 *eMarketer* Almost 30% of US consumers who go on the Internet do not buy products online, according to Forrester. Forrester's survey reveals that the biggest obstacle is concern about the safety of entering credit card information on the Web — 62% cited this as a deterrent. Over 50% of respondents said that they'd prefer to see an item in person before buying it. Factors related to delivery, such as cost, product condition after shipping & waiting time until delivery, all ranked lower. About one-quarter of respondents preferred to research online but buy offline. Consumers' concerns about the safety of online purchases reveals a significant gender gap. Men are much less reluctant to make online purchases than women. Older consumers of both genders tend to be more concerned about online fraud than their younger counterparts. Women are also more concerned about credit card fraud whether online or off, though to a lesser degree, according to Ipsos-Insight. The challenge for online merchants is to ensure that their online payments systems are secure, & to then convince women, a key shopping demographic, that it is safe to use a credit card online. Alternate forms of payment, such as Paypal, or the one-time purchase numbers offered by credit card companies, could help encourage more female consumers to make purchases on the Net.

E-commerce 10 years later 4/19 *eMarketer* Now a full decade old, e-commerce amounts to a \$140b business. Long gone are the days when Web sites crashed & online retailers burned through investors' money. Internet retailers offer a stable shopping environment, & many are showing a healthy profit margin. Internet users are becoming more sophisticated in utilizing multiple shopping channels to research & buy products. In *E-Commerce in the US: Retail Trends*, eMarketer reviews what has happened over the decade since the first online purchase & looks ahead to the future of e-commerce. 'The profile of the online shopper has evolved since the early days of online shopping,' says Jeffrey Grau, eMarketer. 'In its infancy online shopping was the purview of well-educated, high-earning, 20- & 30-year old single, white males. Today online shoppers resemble the US population.' Forrester captured the changing demographic profile of the online shopper in 2 years worth of data. Between 2003 & 2004, the average online shopper became a year younger, was more likely to be female, less highly educated, with slightly lower household income & increasingly accessed the Internet through a broadband connection. 'Online shopping is one of the most popular Internet activities & online buying one of the fastest growing Internet activities. According to *Entering the Broadband Age*, a 9/04 report from the Department of Commerce, searching for product/service information is the second most popular online activity after e-mail or instant messaging. In 2003, 76.5% of Internet users ages 15 & over indicated they researched products online. The fastest growing Internet activities between 2001 & 2003 were purchasing

products/services & banking online - transactional activities. Product purchasing increased by 8 % points from 44.1% to 52.1% while banking online grew by 10.4 % points from 17.4% to 27.8%. 'Online retailing has arrived as a profit engine with double-digit operating margins because retailers have found the right balance between selling a product, acquiring & retaining customers, & earning a profit,' says Elaine Rubin, Shop.org. The e-commerce landscape, once dominated by Internet-only retailers, is now a mix of online & traditional retailers' Web sites. The presence of comparison-shopping sites, such as Shopping.com, Yahoo & Shopzilla among the top retail Web properties, reported by comScore Media Metrix, is evidence that consumers are using the Internet to compare products & retailers.

E-commerce in Canada 4/21 *eMarketer* A new report from Statistics Canada shows sharp growth in Internet sales, but indicates that B2B commerce still accounts for the lion's share of these purchases. Online sales by Canadian companies & government departments grew almost 50% in 2004, Statistics Canada reported. But e-commerce still accounts for a tiny sliver (less than 1%) of total revenues among private businesses. Statistics Canada said that private & public sector online sales increased 49.7% to C\$28.3b. Online sales by private firms increased 45.5% to C\$26.4b, while those by the public sector more than doubled to \$1.9b. Interestingly, the number of firms selling online was found to be unchanged at 7%. These tend to be larger businesses - they represent 27% of gross business income in Canada, the agency said. Small- & medium-size Canadian merchants have been slow to invest in retail Web sites, while consumers have been skittish about buying online over concerns about financial security, *eMarketer's* report on Canadian e-commerce found. Statistics Canada reported that B2B sales represent the lion's share of e-commerce. Sales from business to business amounted to \$19.8b, or about 75% of total e-commerce by private firms, up from 68% the year before.

Conversion rates rise, but cart abandonment remains high 4/21 *InternetRetailer* Conversion rates are rising among online retailers - with 21% of retailers, nearly twice as many as last year, reporting rates of 2-3% - but 90% of retailers have cart abandonment rates higher than 10%, the E-tailing Group Inc. reported today in its 4th Annual Merchant Survey. The study, based on a survey of more than 250 online retailers, notes other improvements in conversion rates. 41% of respondents said their conversion rates were higher than last year, while only 23% said rates were about the same. 70% of respondents said their conversion rates were 2% or higher; 49% said their rates were 3% or higher; 35% said their rates were 4% or higher. The survey notes that 24% of respondents reported cart abandonment rates from 11% to 30%; 33% had cart abandonment rates from 31% to 40%; 24% had cart abandonment rates from 51% to 70%; 9% had cart abandonment rates of 71% or above. 40% of respondents say they sell through a 3-channel strategy, up from 36% last year & 26% in 2003; Online sales account for 1-10% of overall sales for 36% of respondents, but 41% of overall sales for another 34% of respondents; 5% of respondents said they expect 2005 sales to remain static with last year's sales, but 8% said they expect 2005 sales to rise more than 75% over 2004 sales; 76% of marketing budgets are online this year, up from 71% last year & 55% in 2003; 19% of respondents reported average marketing costs per order of less than \$1; 39% reported average marketing costs per order of \$1-\$5.

Micropayments 4/18 *InformationWeek* The e-commerce arm of Walt Disney's ABC network wanted to cash in on a hot new video game it was promoting called Alias Underground. After lining up an ad sponsor, it started offering the game on a promotional basis as a free download. It quickly became a hit, & ABC.com concluded it could generate cash by offering new versions of the game every few months, which users could download on a subscription basis. There was just one hitch: The production, selling & customer-support costs would have exceeded revenue generated by the subscriptions. But it would be profitable if Disney could get a service provider to process the sales of each monthly download, saving Disney from paying high fees on each small-value transaction. The answer was Webpay International AG's Click&Buy software, which lets merchants sell low-priced merchandise online without the hassles of dealing with the high fees charged by credit-card companies. When consumers want to download a version of Alias Underground, they either log on to Click&Buy or, if they're not signed up, fill out a quick registration form. ABC.com gives them the choice of either buying the game or buying a subscription to have future versions of the game delivered on a regular basis. Click&Buy sends consumers a lump-sum invoice once a month for the subscription plus purchases made at other Click&Buy merchants. Since ABC.com began offering the Click&Buy option about a year ago, revenue has more than offset production & customer-support costs, turning a potential money-losing venture into a winner. 'ABC had transaction engines capable of processing online payments, but when we looked at the financials of charging users a few dollars per download, we realized the only way we could do it was through Click&Buy,' ABC.com's Harry Lin says. Demand for so-called micropayment systems is growing quickly. 1.4m Americans made digital-content purchases of \$2 or less in 2004, up from 10m in 2003, according to Ipsos-Insight. That's prompting merchants to turn to micropayment-system providers such as BitPass, Peppercoin & Webpay. PayPal, the payments subsidiary of eBay, has built a micropayment system for Apple iTunes that allows customers to download & start listening to music while they're still browsing for other songs. 'With digital music, customers want to consume the product while they're shopping,' says Peter Ashley, PayPal. An approach to micropayments is the pay-as-you-go model, in which customers are charged each time they make a purchase. To get around high card-transaction fees, some micropayment service providers aggregate small payments from a single customer into one bulk payment in order to save on transaction fees. 'For orders from the same customer, we can turn 3 or 4 \$1.95 orders into one order,' says Bob Nix, Peppercoin. Peppercoin's software approves & processes card transactions right at the merchant's site, avoiding the need to send each transaction through the card network. 'Our algorithms allow us to provide the bank with the same assurance without moving the transaction back & forth.' Peppercoin allows merchants to set parameters such as the amount of time to wait before aggregating transactions. A merchant might choose to wait a week before submitting a customer's transaction. Visa & Mastercard take too much of transactions, Mashboxx's Wayne Rosso says. Mashboxx LLC, a peer-to-peer network that lets consumers download authorized, copyrighted versions of music, uses Peppercoin to accept credit-card payments for individual songs, something it couldn't do on its own because of the economics of credit-card transactions. 'Visa & Mastercard make more money than we do when we sell 99c singles.' Aggregation makes sense only if a merchant has repeat business from a single customer. 'You need to have that customer come back regularly,' says Jeff Fogel, Moneris Solutions, a joint venture of Royal Bank of Canada & Bank of Montreal serving 350,000 merchants. Moneris & other providers of merchant payment services such as Chase Merchant Services & SunTrust have inked co-marketing deals with Peppercoin. 'They're providing a micropayment gateway, & we're providing the banking relationship.' Banks are lining up behind Peppercoin because it provides a complete micropayment business model, including pay-as-you-go, prepay, & postpay for digital content, in-store purchases, & payments made via mobile phone, Peppercoin's Mark Friedman says. In the postpay model, such as Webpay's, customers make payments after they've made purchases. In the prepay model, customers first deposit money into an account; purchases are then deducted from that account. BitPass provides a virtual prepaid debit card that consumers fund through their AmEx,

Discover, Mastercard, PayPal, or Visa accounts. The card is accepted by 300 - 400 sites selling digital content such as music, video, photos & news. PayPal's deal with iTunes works on the postpay model. Instead of paying every time they download a song, customers download as many songs as they want up to a set limit; iTunes charges their PayPal accounts for the songs they've downloaded. The deal lets iTunes process payments at a fraction of the cost of a typical credit-card transaction. The reason is the \$750m that flows through the PayPal system every 2 weeks, much of it funded through low-cost bank accounts & prepaid accounts, rather than credit cards. 'The different funding mixes give us the ability to process payments at a lower cost.' For major credit-card companies, the micropayment explosion is an opportunity to boost transaction volume. Visa estimates that online micropayments totaled \$3b in 2004, 1/2 of it for music, says Billy Knupp, Visa. Visa's systems have plenty of capacity to soak up those transactions: VisaNet, its core transaction system, achieved a peak-processing rate of 5,546 transaction messages per second on 12/24, up 8.3% over the previous year's peak, on 12/24. Visa views micropayments as 'another touch point' for using credit & debit cards. The challenge 'is making sure all these models work to provide a consistent buying experience.' Merchants are depending on micropayment system providers to expand their customer base. It costs merchants \$25 on average to attract each new customer through advertising & marketing; customers need to make 20 or so purchases of small-ticket items in order to be profitable. 'A payment solution for small-ticket items not only processes payments more cheaply but enables merchants to create deeper relationships.' But micropayment systems aren't just limited to digital content; they're starting to make inroads in the real world as well, as replacements for cash. The potential is staggering: In the US, 400b transactions of \$5 or less are made each year, totaling \$1.3 trillion. Reino Parking Systems uses Peppercoin's system to give consumers the ability to receive text messages on their mobile phones alerting them that they've got 5 minutes left until expiration of their parking meters & allowing them to add time via their phones. With the soon-to-be-available version 3 of the Peppercoin system, Reino will offer motorists a prepay option, such as \$20 with 2 free hours. The system has been in use in Australia for a 1 1/2 years & will soon be introduced in the US, says Mark Ralston, Reino. Another Peppercoin customer, jukebox manufacturer Rowe International, launched its first credit-card jukebox last year. 'In our vision, credit cards will begin to replace coins & cash over the next 5 years,' says John Margold, Rowe. Businesses such as bowling alleys, bars & billiard parlors have switched from manual to computer-based jukeboxes, which retrieve songs from a file server over a high-speed connection. The systems have the capacity to monitor the number of songs downloaded; by installing Peppercoin technology, Rowe can aggregate these into a single bulk payment. 'Peppercoin administers payments from thousands of jukeboxes on a given night.' Coin-operated machines are rapidly being augmented with credit-card readers. Version 3 of Peppercoin will expand the payment options from the pay-as-you-go model to prepay, postpay, & loyalty programs. Instead of selling a single cup of coffee for \$1.50, a retailer could offer a 'bottomless' cup of coffee for \$5 a month on a subscription basis. This is the second go-round for micropayment technologies. The first wave took place in the 1990s, when the prospect of buying online content on demand, such as newspaper articles, gave rise to companies such as eCash Technologies, which offered software for making electronic micropayments. It gave rise to companies like Mondex, which developed a chip-based system that allowed consumers to make small-value purchases or person-to-person value transfers anonymously, exactly like cash. Mastercard bought a 51% stake in Mondex in 1996, but a trial of the system conducted in NY the next year was a flop, as merchants balked at the time it took to process transactions. The early vision was that micropayments were an integral component of E-commerce, & demand for micropayment capabilities would grow exponentially. Micropayment pioneers failed when the dot-com bubble burst. Since then, changing technology, including peer-to-peer networks, RFID & cell phones, have helped bring micropayments into the mainstream. Visa & Mastercard launched RFID cards that consumers can wave in front of readers for purchases of \$25 or less. The cards are being test-marketed at outlets such as McDonald's & other purveyors of small-ticket purchases. 'The vision wasn't wrong, but the foundation wasn't there to generate the demand to justify deploying low-value payment services,' says Ed Kountz, TowerGroup. That foundation is now provided by iTunes & other sellers of digital content. 'iTunes isn't a pure-play micropayments provider; they're selling content & hardware. But consumers are interested in downloadable music, & merchants need a way to offer that on either a pay-as-you-go or subscription basis.' For banks, micropayment gateways such as Peppercoin unlock a huge, untapped market. 'It gives them something to offer to merchants who have lots of small transactions,' Friedman says. A new challenge is customer service. Handling customer-service calls costs money, which eats into profitability on small-ticket items. Peppercoin's suite includes a customer self-service feature for online merchants & content providers. The aim is a scenario in which everybody wins: Online merchants can attract more customers & boost their profit margins, banks gain new classes of merchant customers, & the card associations gain a new source of fee revenue.

Other

As the lunch hour wanes, fewer people take time out to eat 4/18 *WashingtonPost* Do you ever feel like the lunch hour deserves a space next to Fonzie's leather jacket in the Smithsonian? Particularly for salaried workers, 'lunch hour' means work. Or errands. Or chips & a soda while going over sales figures. 'I've noticed that bosses are starting meetings at 11:30 am & ending about 2 pm, with no break for lunch,' a reader wrote. 'At first I thought this was a rare event, but now I'm not so sure. By 2 pm, I have another meeting starting, no break for lunch. We all need a break during a long work day. & the work day is stretching to more than 8 hours. In my shared, online Outlook calendar, I'm blocking 2 hours, from 11:30-1:30, to give me time to eat, exhale, return e-mails/phone calls & talk to staff. I really need this time to be an effective manager.' Whether implemented by a boss or forced upon oneself, that leisurely lunch hour scene is simply not so common anymore. 55% of Americans do things other than eat during their lunch hour, according to the Steelcase Workplace Index Survey. The term *lunch hour* itself is an archaic expression. On average, workers spend 36 minutes at lunch. Of those who fall into the category of workers who do things other than eat during lunch, 40% said they have exchanged that traditional lunch hour for some extra time to catch up on work. 14% of workers do not take any time for lunch in an average workweek. 'I tend to work through lunch if I'm not with a prospective client for lunch,' said Clay Parcels, Right Management Consultants. He likes to sit at his desk to eat because it's a quiet time when he can work without constant interruption, & he can catch prospective clients at their desk. Parcels makes it a point never to schedule a meeting for his employees during lunchtime. 'I encourage them to get out, take a break.' Parcels said Right's employees at the Fairfax office typically eat at their desks, while those at the Hunt Valley office actually take on the practice of - gasp - *lunching*. They bring their lunch & eat at noon every day & do spend an hour in the office kitchen together. Parcels spoke of that practice with much admiration. He doesn't know how the co-worker lunch started, but he appreciates it. 'It builds a great esprit de corps & they get to know each other.' Some people have come up with a good reason to skip lunch. 'I try to work through lunch & bring work home,' said a woman who works for an association in Alexandria. She didn't want her name used because she feared her boss wouldn't take it well. She likes to work through lunch so she can assure an early departure, 4:30 pm. She has 2 babies who need to be picked up from day care, & if Beltway traffic is bad, well, there goes 1/2 her salary on day care late fees. 'I purposely work flexible hours so I am able to leave at a decent hour.' That doesn't stop the resentment she has for the boss who always schedules meetings from 10 a.m. to noon - that actually last until 2 pm & then if she tries to run out for

food after the meeting, it's nearly impossible to stick to those flex hours.

She admits that on well more than one occasion, her lunch consisted of a late afternoon coffee. Some don't like lunchtime meetings, but some don't mind them because they don't cut into their typical break time. Kara Houston, a software tester in Arlington, usually eats at her desk around noon, then takes a break later in the afternoon to refresh herself. Without that little 15-20 minute break, she's pretty much a basket case. She used to try to take a regular lunch but found noon was just too early to break. Later in the afternoon is when she needs to get up & move around to refocus & get back into the rest of her day. If she can't take that break, 'it makes the whole day seem worse.' Jennifer, a contractor who asked that her last name not be used because she didn't want to be reprimanded, said her weekly staff meeting is usually right around her lunchtime. She's pregnant, so watch out. 'It was a little easier for me to go an hour or 2 without worrying about how hungry I'd get before I was pregnant. Now, I don't feel so good if I don't eat.' She has occasionally brought lunch with her, but there have been times when the meeting is held in a room where no food is allowed. She will sometimes let meeting planners know that meeting during lunch in a non-eating room is impossible, & they have made accommodations at times. 'They're pretty understanding.' She counts herself lucky, even on those days when she has to sneak in a few snacks to survive a day without lunch. On those days, she leaves after 8 hours, no matter what. & for that, growling stomach or not, she is grateful. 'Not everyone has that flexibility.'

Play fighters do not win in later life 4/15 *NewScientist* Practice doesn't make perfect for duelling meerkats. Vigorous play fighting as a pup does not improve a meerkat's chances in important adult battles, dispelling the most popular theory to explain youthful brawls. As juveniles, many animals indulge in dangerous & energetically costly battles with litter-mates or other youngsters. Biologists have often assumed the rationale behind this play fighting is to develop the motor skills & coordination necessary for successful adult fights. For meerkats the stakes are particularly high as only the dominant male-female pair in a colony gets to breed. The others are condemned to mere nest attendant duties. Lynda Sharpe at the University of Stellenbosch, South Africa, studied a population of wild meerkats in the southern Kalahari desert in South Africa from 1996 - 2002. She followed 18 pairs of same-sex litter-mates, recording the number, frequency & outcome of play fights & the individuals' ultimate status within the group as an adult. She found that young meerkats who played frequently were no more likely to win play fights, adult fights or become a member of the dominant pair. Meerkats showed no sign of improvement with extra play sessions. Sharpe believes that while play fighting may not produce highly trained combatants it could have an important role in brain development.
