

Financial Technology Monitor

November / December 2002

The Payments Industry - The Need for a Comprehensive Integrated Provider

Last year there were over 40 billion paper checks written in the United States versus over 42 billion in 2000. The general consensus is that check volumes will continue to decline for the foreseeable future. Some experts predict that check volumes could decline as much as 1 billion checks per year over the next decade. That still leaves the US banking, settlement and clearing system to deal with over 30 billion paper checks in 2010. With the growth in multiple modes of payments, why is it that most of the companies servicing the payments marketplace have created one or two point solutions that only address a portion of a bank's or business' needs?

As you can see from the chart on page 2, we have a wide variety of payment alternatives that are growing (or declining in the case of paper checks) at various rates. Many of these alternatives are just now starting to gain critical mass in the consumer payment arena. For example, ACH now accounts for approximately 8 billion annual payments. The vast majority of these are "retail" payments which are comprised of 3.7 billion direct deposits and 2.6 billion direct payments. The ACH Network processed approximately 1.6 billion corporate payments and Financial EDI transactions last year. It is

Financial Technology Industry News Briefs

- **E-Checks charge ahead:**
According to NACHA, the Electronics Payments Association, more than 200 million e-checks payments were made during 1H 2002, representing an increase of 300% over the same period last year.

- **Wealth management continues to attract FI dollars:**
TowerGroup estimates that financial institutions will spend \$2.7 billion on wealth management technology by 2005. The market research firm attributes the growth to the fact that people have more wealth than ever before in spite of the recent challenging economic times.

- **IT spending in the financial services vertical remains resilient:**
In Gartner's preview of 2003 IT spending growth report, the financial services market will see a single digit increase in IT spending with resilient spending in the banking sector, constrained spending in securities and increasing IT spending in insurance. Gartner indicated that banking represents a strong outsourcing market, while the securities market will prioritize straight-through processing and seek BPO solutions for back- and mid-office processes. IT spending in the insurance sector will be driven by increased demand as well as price increases for insurance after the 9/11 attacks.

- **CRM vs. ERP?**
In a recent AMR survey, more than half of the financial firms indicated that they either already have implemented or are in the process of deploying a CRM solution. As a result of this penetration, AMR expects that ERP spending, which has historically been a lower percentage of FI IT application budgets, may rise by the end of 2002.

- **Insurance Outsourcing?**
Outsourcing can be a boon for an insurer's IT organization in form of cost competitiveness. For example, off-shore outsourcing can bring programming costs down to \$20 - \$60 per hour compared to \$85 - \$100 for in-house programming. Strict control of quality coupled with management of outsourcing relationships are key to well-executed outsourcing strategy.

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The Payments Industry - The Need for a Comprehensive Integrated Provider (Cont'd.)

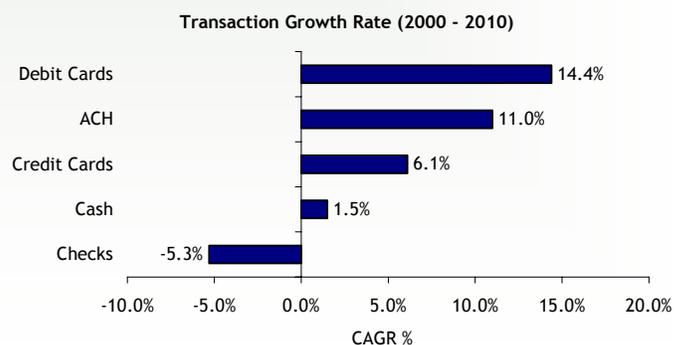
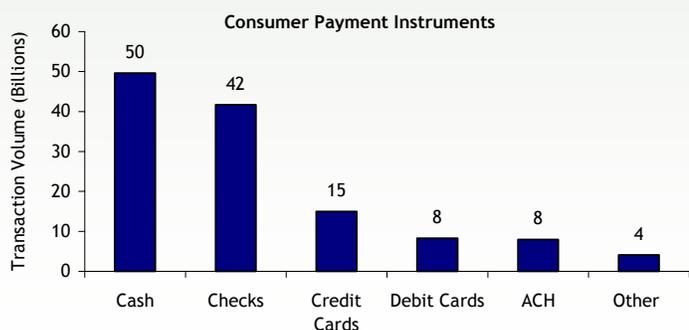
estimated that ACH now represents approximately 18% of total B-to-B payments. The advent of non-cash payments largely stems, among several factors, from the accrual of significant cost savings.

There have been numerous studies of the cost savings obtained when businesses utilize electronic payment alternatives versus paper checks. Clearly, there is a greater trend to drive efficiencies and generate more electronic payments. In addition, the micro payments market continues to be a cash market which presents an entirely different set of costs and challenges to the system. Given that there are tremendous cost savings and efficiencies to be had with greater acceptance and use of electronic payment alternatives, why are we faced with minimal adoption of EBPP, EIPP and EDI? Why are there still 40 billion paper checks circulating through our financial system annually? Why do 90% of consumers use cash for purchases under \$20? If you have a good answer to these questions we'd love to hear it. At the end of the day it boils down to changing consumer and business behavior. Even though the economic benefits are compelling, when you need to change human behavior to realize the power of electronic payments, it involves an adoption curve. In the case of payments, we would argue that certain payment methods are so ingrained in society that it is not unlikely for the ultimate adoption of these electronic methods to span several generations.

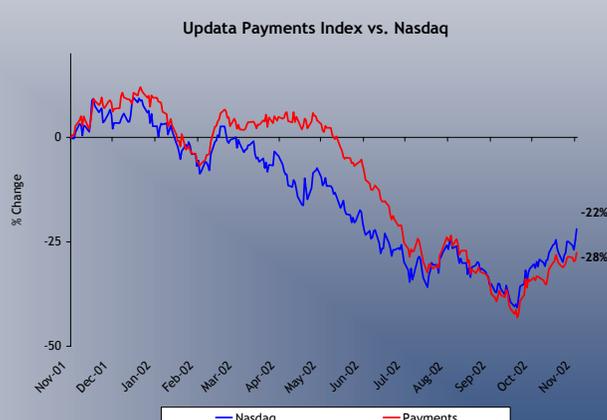
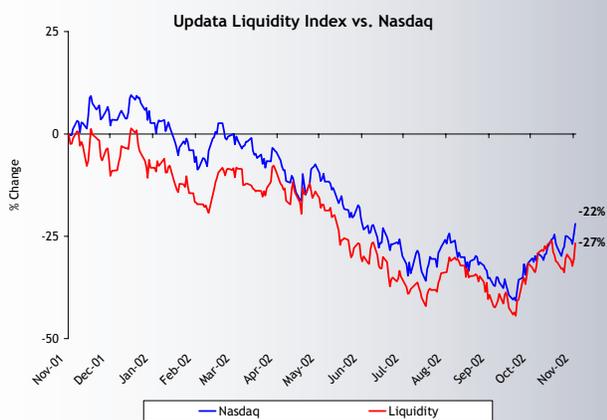
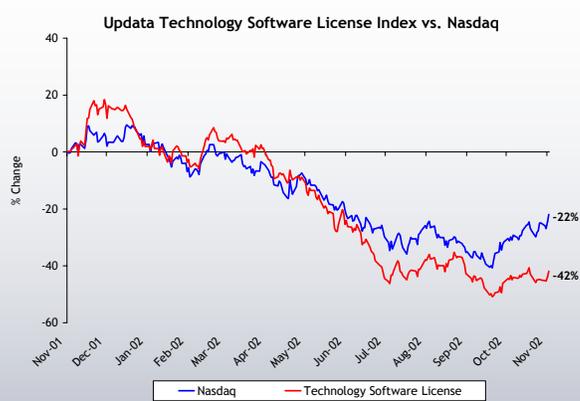
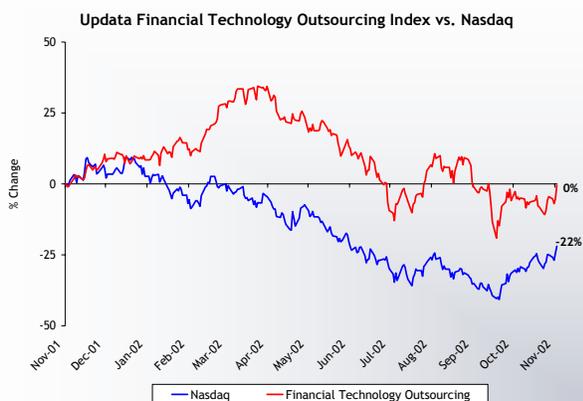
This brings us back to the original question we posed --- Why then have most of the payment solutions vendors only created one or two point solutions that only address a portion of a bank's or business' needs? Vendors that service the check processing market are confronted with the reality of a slowly contracting marketplace. Companies that service the credit card and/or debit card markets are tied to the survival of credit and ATM networks and the ability to maintain interchange pricing. The companies that are servicing the EBPP, EIPP or alternative electronic payment solutions (ACH, EFT, ECP, etc.) are left waiting for the adoption curve to generate enough volume to profitably get to scale in these businesses.

Given that today's fragmented vendors are facing a variety of market forces, most beyond their ability to influence or control, why not consider creating a comprehensive payment provider that can offer its clients an integrated suite of products and services that contemplate the realities of the evolution of the payments marketplace. We suggest that those visionary companies today that create a full suite of products to address the banks' and/or businesses' need for a solution that covers cash, paper checks, credit & debit cards, and alternative electronic methods will ultimately be best positioned to succeed and create tremendous shareholder value. Moreover, those companies that offer a common platform to reduce multiple systems and manual entry will be rewarded with substantial growth.

With the financial services industry undergoing a period of rapid consolidation, the need to reduce the number of technology vendors and technology platforms servicing financial institutions becomes even more intense. The ability for a single vendor to implement an enterprise wide solution for banks and their commercial and retail customers to initiate, track, settle and clear payment transactions on a common platform will ultimately prevail as *THE* payments vendor. To enable the bank to efficiently process paper checks (either through imaging, truncation or some other tool) as well as ACH, ATM, EFT, Debit (online and offline), credit and other electronic payments with one integrated platform will be a welcome solution. We see several private equity groups and market leading companies looking to accomplish this monumental task through a combination of strategic acquisitions and R&D investment. In addition, some players are actually taking this a step further and attempting to integrate with corporate A/R and A/P systems to create a truly electronic work flow. The aforementioned vision and ultimate solution will be realized in the future and result in a few formidable payments companies. Thus, we expect to see continued consolidation across payment technologies servicing multiple payment types.



Update Various Financial Technology Composites: LTM Price Performance



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

Financial Technology Company News Briefs

NEW YORK, NY, November 4 (PRNewswire-FirstCall) -- The Nasdaq Stock Market, Inc. announced that Instinet Corporation (Nasdaq: INET) has begun quoting securities listed on the New York Stock Exchange and the American Stock Exchange -- including SPY and QQQ -- for the first time through NASDAQ InterMarket.

STAMFORD, CT, October 10 (BUSINESS WIRE) -- NYFIX, Inc. (NASDAQ: NYFX) announced that it has acquired an 18% interest in Renaissance Trading Technologies LLC, and together have entered into an agreement to offer a complete NASDAQ trading platform and workstation system. In connection with the investment, NYFIX had acquired and subsequently contributed to Renaissance, the Intellectual Property Rights and all source code to the system, which was developed by a major bank and brokerage firm over the last several years.

DALLAS, TX, November 11 (PRNewswire-FirstCall) -- Alliance Data Systems Corp. (NYSE: ADS), announced that it has completed a \$600 million offering of five-year asset-backed notes issued as part of Alliance Data's securitization program for its private label credit card subsidiary, World Financial Network National Bank (WFNNB). The notes are rated AAA thru BBB by Standard and Poor's debt-rating service and are secured by a beneficial interest in a pool of receivables that arise under WFNNB's private label revolving credit card accounts. The notes were used to retire an existing series of investor certificates.

Financial Technology Company News Briefs (Cont'd)

ATLANTA, GA, November 11 (PRNewswire-FirstCall) -- **CheckFree i-Solutions**, the leading provider of interactive e-billing and e-statement software and services and part of CheckFree Corporation (Nasdaq: CKFR), and Valero Energy Corporation announced that electronic billing and payment services are available to Valero's more than one million retail customers. Valero provides gasoline credit card services to about 3,000 retail sites in 16 states. Through its new, direct relationship with CheckFree i-Solutions, Valero will offer customers an online billing and payment option and will add a new biller direct electronic billing service, UltraQuick Online, provided by CheckFree i-Solutions. At the site, Valero customers can view their bills and schedule payments using their checking or money market accounts.

ATLANTA, GA, November 5 (PRNewswire-FirstCall) -- **CheckFree Corporation** (Nasdaq: CKFR) today announced the general availability of the latest version of its CheckFree WebPay service. The new WebPay platform offers the first natural language voice recognition service for electronic billing and payment (EBP) that integrates with other bill payment channels. The introduction of the new service gives CheckFree consumer service providers, such as banks, brokerage firms, credit unions, Internet portals and personal financial management software, the ability to provide anytime, anywhere bill payment access.

DENVER, CO and REGINA, SK, October 9 (CNW) -- **CU Electronic Transaction Services (CUETS)** and **First Data Corp.** (NYSE: FDC) today announced they have entered into several agreements in which the companies have agreed to work together to provide advanced card issuing, merchant processing, and acquiring services to the Canadian financial services market. First Data also has acquired equity interests in CUETS' merchant acquiring and merchant processing businesses and agreed to form an alliance which will assume responsibility for management, operations, risk and sales activities for the acquiring business.

TEMPE, AZ, October 29 (PRNewswire) -- **Vital Processing Services**, a recognized leader in technology-based commerce enabling services, announced the renewal of a multi-year Point-of-Sale merchant processing agreement with National Processing Company, LLC. Under the terms of the agreement, Vital will continue to serve as NPC's primary provider of dial POS authorization and capture processing services. New terms of the agreement were not disclosed.

JERSEY CITY, NJ, October 14 (INTERNET WIRE) -- **ADP Brokerage Services Group (ADP)**, a division of **Automatic Data Processing, Inc.** (NYSE:ADP), announced today that it has made an additional equity investment in **Xtiva Financial Systems**. The funds will be used to further enhance Xtiva's existing products via line extensions as well as develop new applications specifically geared toward increasing the efficiencies of broker/dealers in line with client demand. The Xtiva products provide an important complement to ADP's existing trade processing offerings.

WASHINGTON, November 6 (Dow Jones) -- **Fair, Isaac & Co.** registered for selling shareholders \$68,479,000 of 5.25% convertible subordinated notes due 2008. The notes were originally issued and sold by **HNC Software Inc.** (NYSE:FIC) August 2001 and September 2001 in private placements. On Aug. 2, HNC Software merged with Fair, Isaac, resulting in Fair, Isaac assuming the obligations of the 5.25% convertible subordinated notes. Fair, Isaac registered 1,234,078 shares of common stock issuable upon the conversion of the notes. The company won't receive any proceeds from the sale of the convertible notes or the common shares issuable upon the conversion of the notes.

BROOKFIELD, WI, November 7 (BUSINESS WIRE) -- **Fiserv, Inc.** (Nasdaq: FISV) announced today that it has acquired the life and health third-party administration (TPA) business from **Willis Group Holdings** (NYSE: WSH). Terms of the agreement were not disclosed. The business provides benefit administration and consulting nationally and is recognized for its wide range of services to self-funded and fully insured employers. In addition to traditional TPA claims administration, the business offers flexible benefits administration, COBRA/HIPAA administration, plan design services and managed care consulting. Earlier in the month, announced the signing of a definitive agreement in which **AVIDYN** will merge its operations with the Fiserv organization. **AVIDYN** serves the health care industry through its two wholly owned subsidiaries: **ppoONE, Inc.**, offering claims repricing and data management services, and **ValueCHECK, Inc.**, a provider of utilization review and case management services. **AVIDYN** shareholders will, subject to certain closing date adjustments, receive \$10.5 million in Fiserv common stock. **AVIDYN** had approximately \$8 million in revenues.

BERKELEY, CA, October 29 (PRNewswire-FirstCall) -- **Barra, Inc.** (Nasdaq: BARZ) announced the launch of the new Barra Integrated Model, an innovative patent-pending risk model for forecasting global risk. Offering consistent and rigorous risk management for both domestic and international investment approaches, the new Barra Integrated Model spans equity and fixed income instruments. The model allows for the analysis of risks and rewards in a single industry sector; a geographic region or asset class; or across a broad, global, multi-asset spectrum. By providing both broad coverage and in-depth analysis, the model is detailed enough to drill down to country specific assets while being broad enough to cover a larger investment universe. The Integrated Model facilitates consistent aggregation and risk analysis across local markets and asset classes.

Financial Technology Company News Briefs (Cont'd)

OAKS, PA, November 4 (PRNewswire-FirstCall) -- **SEI Investments** (Nasdaq: SEIC) announced it will offer a straight-through mutual fund processing solution. SEI intends to offer the solution on an outsourced basis to national, regional and community banks; independent trust companies; investment advisors; broker/dealers, and investment managers starting in second quarter 2003. As part of the straight-through processing solution, SEI has reached an agreement with **Charles Schwab Clearing Services** to integrate SEI's mutual fund processing platform with Schwab's mutual fund supermarket.

ATLANTA, GA, November 5 (PRNewswire) -- **Seac Banche**, the leading manufacturer of check processing equipment worldwide, announced a strategic partnership with **Alogent Corporation**, a leading developer of payment transaction processing solutions. The new partnership is designed to streamline check processing operations for U.S. banks by delivering a fully-integrated solution of hardware, software and services that automates payment and deposit functions.

PRINCETON, NJ, October 22 (PRNewswire) -- **Princeton eCom**, a leading provider of electronic billing and payment services, today announced the appointment of R. Craig Kirsch as its Chief Executive Officer. Kirsch has served as the company's interim CEO since December 2001. He also serves as a member of the Princeton eCom Board of Directors.

CHARLOTTE, NC, November 4 (PRNewswire) - **Adhesion Technologies** and **NetDecide Corp.**, a developer of Web-based, wealth-management software, will integrate NetDecide's software with Adhesion's EA2 financial consolidation platform. The combined product provides advisors a link to client accounts, both those managed by a client and those held away from the client's firm.

NEW YORK, NY, November 6 (BUSINESS WIRE) -- **CashEdge Inc.**, a provider of secure Online Money Movement and Advanced Account Aggregation platforms, today announced that it has surpassed the \$100 million transaction mark, in account-to-account transfers and third-party payments through its network. CashEdge employs the ACH network and is partnered with **NYCE** for use of the debit network.

WARREN, NJ, November 12 (INTERNET WIRE) -- **GAIN Capital, Inc.** the premier independent provider of foreign exchange services, including direct-access trading and asset management, announced recognition from two prominent regional technology organizations for growth, achievement, and product innovation. The firm has received finalist status from the New Jersey Technology Council (NJTC) as "Growth Company of the Year" and from the Eastern Technology Council, in partnership with PriceWaterhouseCoopers, as "Start Up Company of the Year." The award winners will be announced on November 22nd and December 3rd, respectively.

Upcoming Financial Technology Events

November 18 - 20, 2002: **CardTech/SecurTech ID**, Washington, D. C.

November 21, 2002: **Fixed Income Summit & Expo on E-Commerce & Technology**, New York, NY

December 5 - 6, 2002: **4th Annual Mortgage EC Conference**, Las Vegas, NV

January 27 - 29, 2003: **TradeTech Fixed Income 2003, The Annual Institutional Fixed Income Trading Technology Summit**, London, United Kingdom

January 29 - 31, 2003: **6th Annual Mortgage Technology Conference**, Miami, FL

February 4 - 5, 2003: **Wall Street on JAVA Technology Show and Conference**, New York, NY

March 9 - 11, 2002: **7th Annual National Collections and Credit Risk Conference**, Las Vegas, NV

May 12 - 15, 2003: **13th Annual CardTech/SecurTech Conference and Exhibition**, Orlando, FL

Recent Financial Technology Private/Venture Capital Financing

<u>Company</u>	<u>Description</u>	<u>Amount Raised</u>	<u>Investors</u>
Monetrics	Risk management technology	\$2.6 million	Egan-Managed Capital, BancBoston
iPIN	E-payment software for Web and wireless payments	\$6.0 million	N/A
WebTone Technologies	Provider of enterprise-wide customer interaction software for FI's	\$20.0 million	Technology Crossover Ventures
Trapedza Financial Systems	Banking software provider	\$2.1 million	Bank of Scotland, Enterprise Ireland, Dublin Seed Capital Fund
ExpertPlan	Provider of on-line retirement plan administration	\$4.4 million	Liberty Ventures, Milestone Ventures, NextLevel Ventures, Meridian Venture Partners, and Gamma Investors
Forefield	Web-based information and services software for financial institutions	\$2.5 million	Ascent Venture Capital, Northern Hill Ventures and Regent Capital Management
TradeCard	Financial supply chain services	\$10.0 million	Warburg Pincus
Actimize	Real-time analytics software	\$10.0 million	Giza Venture, Vertex Venture, Carmel Ventures

Financial Technology M&A Activity

(\$ in millions)

<u>Date Closed</u>	<u>Seller</u>	<u>Buyer</u>	<u>Deal Value</u>	<u>Revenue</u>	<u>Mult of Revenue</u>
Pending	Brand and Trade Processing Technology of Proponix	American Management Systems	ND	NA	NA
Pending	Avidyn	Fiserv	\$10.5	\$8.0	1.3x
Nov-02	CU Solutions	Jack Henry & Associates	ND	\$2.0	NA
Nov-02	Vantra Group	ADP Brokerage Services Group (Div. Of ADP)	ND	NA	NA
Nov-02	CA's Banking Solutions Group	Golden Gate Capital and Parallax Capital Partners	ND	NA	NA
Nov-02	Creditwave	GHR Systems	ND	NA	NA
Nov-02	myCFO	Harris Wealth Management Group	\$30.0	NA	NA
Nov-02	Certain Files and Contracts of CBC Companies	Equifax	\$95.0	NA	NA
Oct-02	Interlinq Software	Harland (John H.)	\$21.7	\$17.0	1.3x
Oct-02	PayPal	eBay	\$1,340.0	\$173.7	7.7x
Oct-02	NewMarkets International	Commonwealth Foreign Exchange	ND	NA	NA
Sep-02	Products of ABS Group	COR Financial Solutions	ND	NA	NA
Sep-02	First Northern Financial Resources, Inc.	Bisys	ND	NA	NA
Sep-02	Island ECN Inc	Instinet Group	\$568.6	\$200.0	2.8x
Sep-02	Eagleye Solutions	Misys Plc	\$23.3	NA	NA
Sep-02	Datek Online	Ameritrade Holding	\$1,289.0	\$300.0	4.3x
Sep-02	Hoenig	Investment Technology Group	\$94.3	\$105.3	0.9x

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