

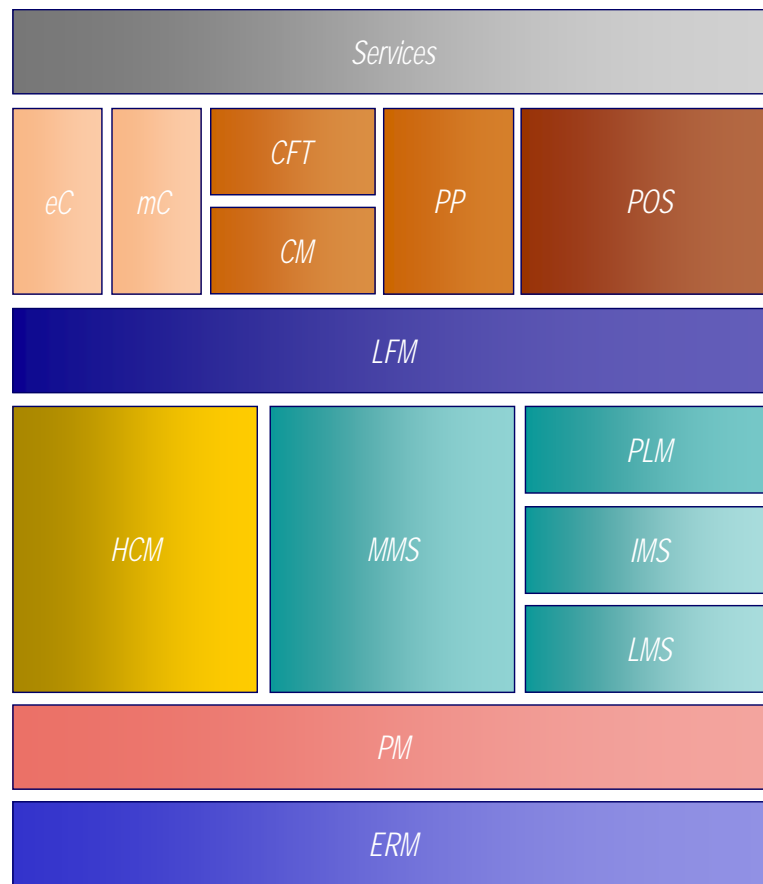
Retail Technology: How Technology is Driving Retail

Consumer-centric retailing raises the question whether technology will effectively eliminate retailing, as it exists today. The drive by retailers to invest in technology that creates a closer tie to the consumer (loyalty; customer management; targeted campaigning, promotions, marketing), ideally fostering the 1:1 consumer experience, suggests a time when retailers will have become little more than brands with perfected merchandising capabilities and outsourced logistics. The other elements currently associated with retailing, including the physical infrastructure of the bricks-and-mortar world, the inventories of both the traditional and online retailer, and complicated supply chain and logistics management, have been merely the means to an end; but that end, the controlled 1:1 consumer experience resulting in an exchange of money for merchandise, need no longer require those means within the horizon of today's retail technology.

- **CM technology**, including loyalty programs, digital receipts, and transaction pattern trackers (both purchase and returns) will help retailers identify and stick to the most desirable consumers
- **MMS technology**, including multi-channel promotional and campaigning, will assure retailers that they provide a consumer with the interactions he desires when and how he desires them, even if he did not realize either until touched by the retailer: "right product, right place, right time, right price" *pushed* by retailers rather than *pulled* by consumers
- **eC and mC** will provide a consumer the ability to interact easily, conveniently and quickly with retailers, paying for products or services without effort or even much remark of the exchange
- **SCM technology**, particularly vendor order management and logistics automation, will allow products to go directly from production to consumption, without ever being at rest or motion in "the retail channel", tying up valuable capital

The impact of this progression will vary by retail dimension, of course. The immediately interactive or consumptive element of the fuel and convenience or hospitality dimension, for example, naturally mitigates against this progression, which is even unintelligible in those environments. The irony is that this new streamlined retailing will not only be more satisfying for consumers but also far more profitable for retailers, even if more fiercely competitive. Driven by these increasing technological capabilities, retailing is becoming the receipt of payment for merchandising rather than merchandise.

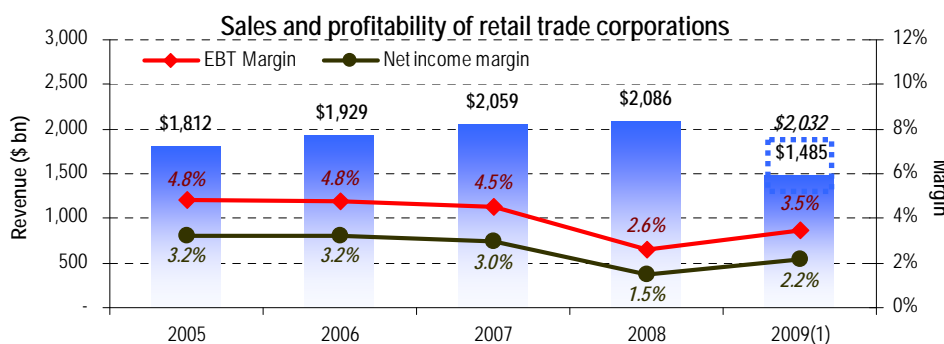
Evolving the Retail Stack



- **Appearance of mC.** Cronus has modified its retail stack model to reflect the view that m-Commerce represents a differentiated technical capability of increasing secular importance to retailers.
- **Re-apportionment of MMS and the merger of BI.** Basic business intelligence functionality obviously exists in many ways throughout different areas of the retail stack, including not least in HCM and ERM. However, Cronus has eliminated BI as a discrete element in its retail stack model because the idiosyncratically retail applications of business intelligence technology take place primarily in the already specified merchandising (and inventory) management areas.

Retailer Performance and IT Spending

Regardless of how retailers divide their IT budget pie (see Retail IT Spending in 2010, Store System Planned Investment in 2010 and Investment Priorities in 2010), it should be bigger this year than last, with retailers estimating a 3.9% increase in IT spend at the enterprise level and a 3.2% increase at the store level, about double what the expected increase was at this time last year. This is consistent with the expected trend in overall IT spend, with Gartner estimating that 2010 should see a 4.6% increase over 2009, which had declined by 4.6% from 2008. With retailer operating margins still in the 3% range, IT budgets likely match the overall margin of retailers and exceed their aggregate net income.



(1) Consists of the first three quarters of 2009 as reported, with seasonally adjusted estimate for the fourth quarter.
Note: Comprised of retailers with \$50 mm and more in assets.
Source: U.S. Census Bureau (December, 2009)

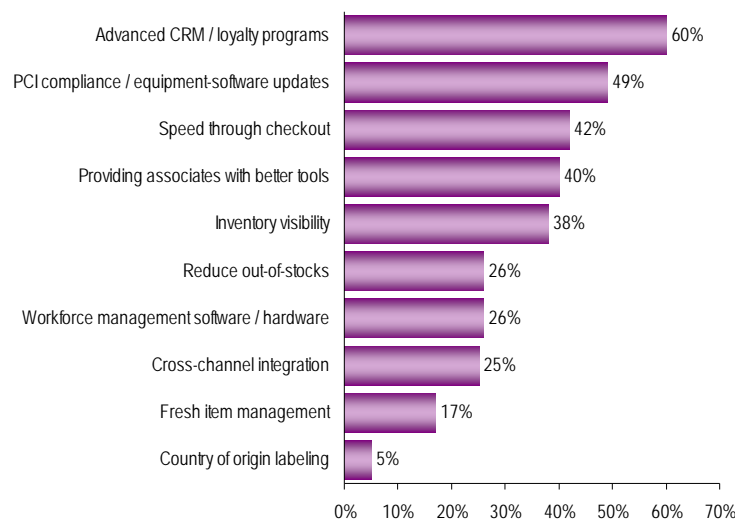
Retail IT Spending in 2010

With the advent of a new year and new IT budgets for retailers, Cronus expects retailers to reassess their most immediate needs after having gone through twelve to eighteen months of cost containment. While Cronus expects major initiatives to reemerge that were put on hold, especially POS upgrades, there should be particular investment in certain areas of technology more central to the streamlined retailer.

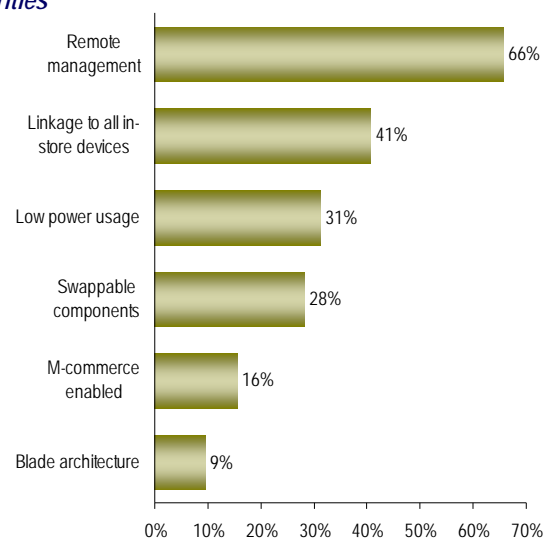
- Customer-Oriented.** The buzz over "consumer focused" retailing has become deafening, and this buzz will be backed up by retailers spending their dollars in 2010 to upgrade or implement CFT and CM technology, including loyalty systems, customer data mining and analyses systems (of CM applications), and more specific, customized marketing and campaigning technology – multi-channel, ideally – directed at customers.
- m-Commerce and e-Commerce.** In an early 2009 RIS study, more than one-fifth of retailers planned on piloting m-Commerce before year end. Broader trends in consumer technology, including the continued success of the iPhone, increased willingness of younger consumers to shop from their smart phones, and the launch of the iPad, suggest that retailers will accelerate their efforts in this area.
- POS.** POS shipments were expected to decline in 2009, some 3.7% in North America according to IHL Group, and all indications are that this decline and more have been realized. The SMB specialty channel, which was expected to see the largest decline (some 12%), appears to have been as hard hit as expected; while grocery and drugstores, driven not least by continuing PCI compliance requirements, proved the most resilient. Currently some 24% of retailers plan on upgrading their POS in either 2010 or 2011, according to RIS News, a figure that seems more likely than the usually robust predictions that retailers offer about their POS upgrade intentions. Most interesting, the key drivers of these planned upgrades are: PCI compliance, high maintenance costs, and the desire for additional features in the POS, which point to impossible to ignore (PCI) or financially foolish to ignore (maintenance costs) drivers – or indirectly the functions on which retailers want to spend their IT dollars (CM, mC and eC), with these functions just happening to be realized at the POS.

Store System Planned Investment in 2010

Top store system priorities



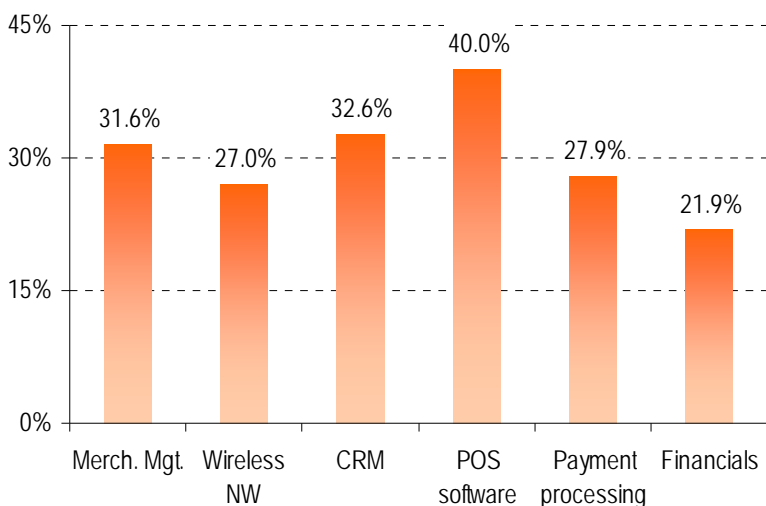
POS upgrade priorities



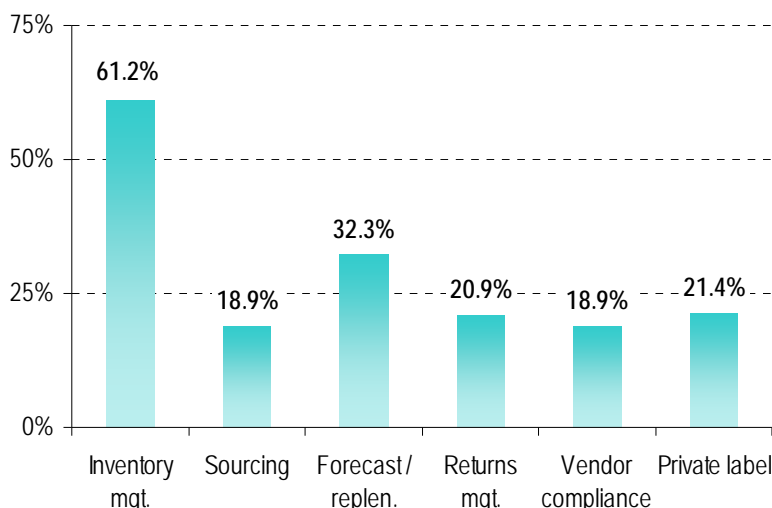
Source: 7th Annual IHL Group/RIS Store Systems Study (RIS News, 2010)

Investment Priorities in 2010

In-store software and systems investment



Supply chain / logistics solutions investment



Source: 2009: What went wrong? 2010: What's going right? (Integrated Solutions for Retailers, 2009)

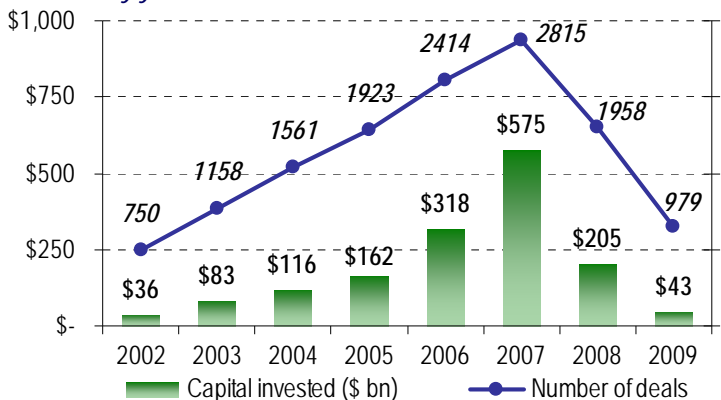
Transaction Activity Outlook

Private market or M&A transaction volume in the retail technology sector will in the view of Cronus be impacted by different drivers in the short and the longer term.

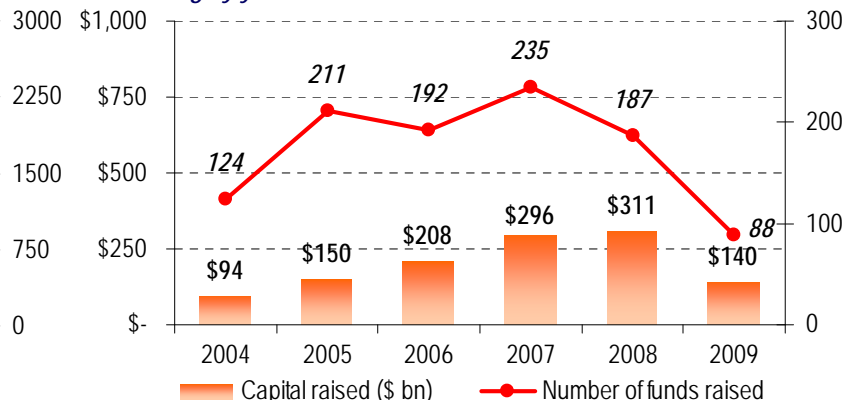
- Clearing Backlog.** Short term, defining that as approximately the next three to six months, Cronus expects the completion of transactions that have been under active or passive consideration for a year or more but that, due to exogenous factors (not the least of which would be credit and broader capital market conditions), were unable to close. These transactions would primarily consist of strategic acquisitions by operating companies of other operating companies. Current conditions should allow the clearing of this transaction backlog, as company performances (of both the seller *and* the acquirer) stabilize, becoming more predictable, and credit markets operate more normally. The JDA acquisition of i2 Technologies is a paradigmatic, public example of this phenomenon, while the dunnhumby Ltd. acquisition of KSS Retail most likely represents another.
- New Realities.** Longer term, meaning beyond approximately 3Q2010, transaction activity will be driven by the new realities of the retail technology landscape, including the apparent re-ascendency (for now) of the end-to-end retail suite. Retailers, according to RIS's Modern Retail Architecture study, have tired of the "never-ending integration problems" and "overall systems dysfunction" long the hallmark of the best-of-breed stack held together with the proverbial bale wire. Therefore technology providers with the ability to consolidate functionality (expected to be in great demand in the retail technology stack of 2010 and beyond) will exploit this; they will consolidate into more attractive end-to-end solutions those small players who have been successful in bringing so-called hot "new realities" technology to market, potentially representing a boomlet in acquisition activity. This "new realities" activity represents transactions that would have likely materialized in the ordinary course over the past two years but that did not because neither party dared, either from the *worse-than-desired* performance on the part of the would-be seller or the uncertainty and capital conservation mantra prevalent among would-be buyers. But the retail technology landscape did not stand still during 2008 – 2009; consumers evolved rapidly and retailers have tried to evolve with them. The M&A market, however, has been largely frozen, which is historically inconsistent with such technological ferment.
- Private Equity – a Tailwind in the Long Term?** Some formerly aggressive retail technology consolidators are today backed by private equity, notably Torex (acquired by Cerberus in 2007), and while private equity was unusually inactive in 2009, that should change in 2010. A simple overlay of the funds raised by these investment vehicles compared to completed transactions suggests the enormous potential transaction value, without regard to the leverage (at least 1:1) that these funds could command. With an estimated \$400 billion in committed but uninvested equity, these funds could provide significant competition to current retail technology vendors in their efforts to consolidate new realities into a modern end-to-end retail automation stack.

U.S. Private Equity Deal Flow and Fund Raising

Deal flow by year



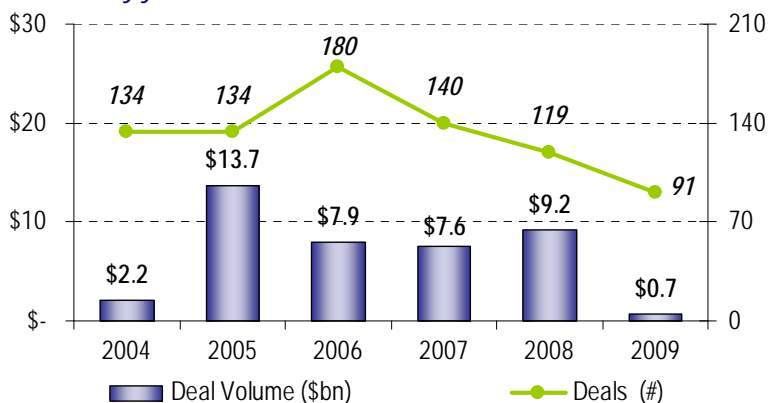
Fundraising by year



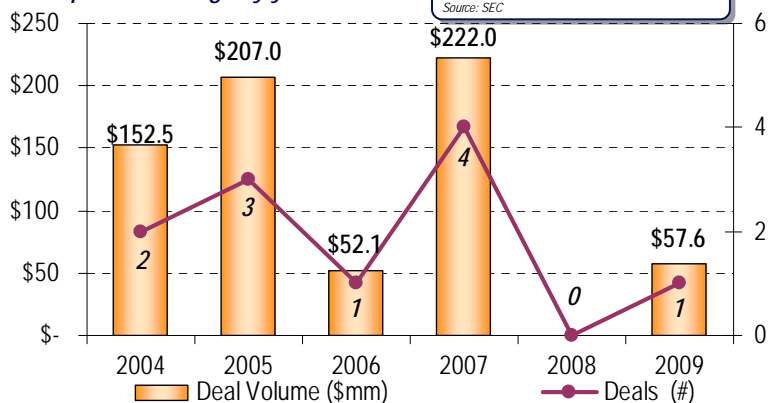
Source: Annual Private Equity Breakdown 2010 (Pitchbook, 2010)

Global Retail Technology Deal Flow and Public Offerings

Deal flow by year



Initial public offerings by year



Source: Capital IQ, December 2009

Snapshot of Public Company Retail Solution Providers ⁽¹⁾

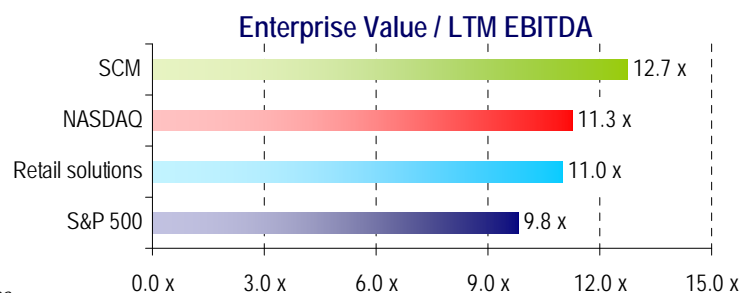
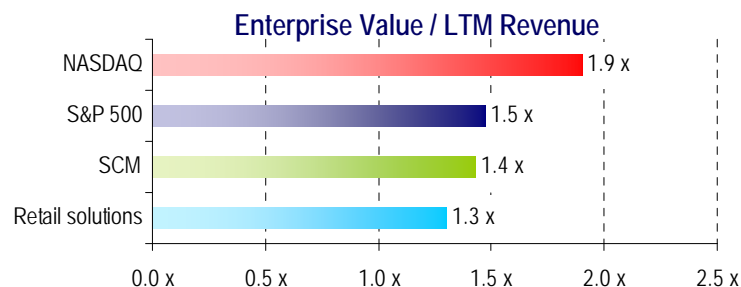
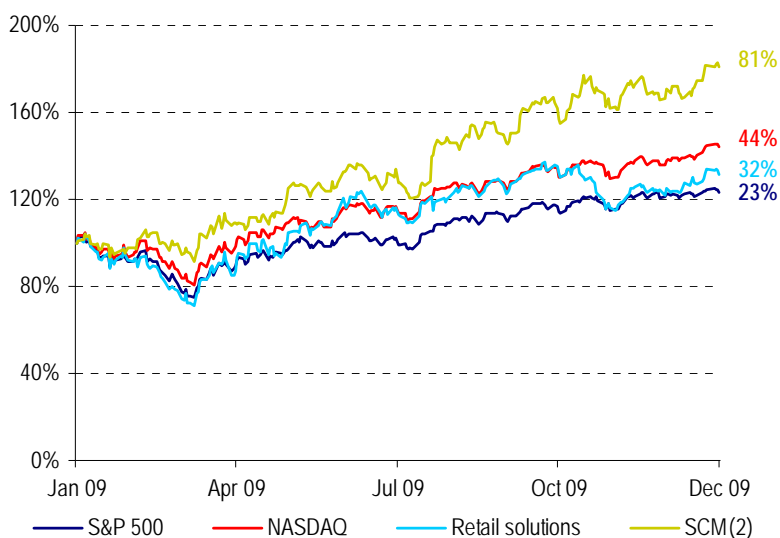
(Amounts in millions of U.S. dollars, except per share data)

Company Name	Stock Price 2/11/2010	% of 52-week		Market Cap	Enterprise Value	Cash	EV / Revenue		EV / EBITDA		P/E Ratio	
		High	Low				LTM	CY2010 E	LTM	CY2010 E	LTM	CY2010 E
Wincor Nixdorf AG	\$66.53	94.9 %	154.9 %	\$2,094	\$2,231	\$140	0.7 x	NA	7.2 x	NA	13.8 x	NA
MICROS Systems, Inc.	29.38	90.0	203.9	2,299	1,841	466	2.1	1.9	11.0	8.9	24.3	14.4
NCR Corp.	13.10	91.3	197.9	2,019	1,611	451	0.3	0.3	7.3	6.4	NM	15.6
Radiant Systems Inc.	10.94	91.5	499.5	360	415	15	1.5	1.4	12.0	8.8	38.2	13.9
Retalix Ltd.	13.10	90.8	208.5	316	249	70	1.3	NA	16.8	NA	NM	NA
Bematech SA	5.03	95.2	167.0	255	226	37	1.3	NA	8.6	NA	10.8	NA
PAR Technology Corp.	5.86	80.8	156.7	86	90	5	0.4	0.4	17.4	NA	73.1	26.4

Mean	90.7 %	226.9 %	1.1 x	1.0 x	11.5 x	8.1 x	32.0 x	17.5 x
Median	91.3	197.9	1.3	0.9	11.0	8.8	24.3	15.0

(1) Data obtained from public company filings and Capital IQ. Foreign currencies converted to U.S. dollars using historic exchange rates. Data as of February 11, 2010.

Public Market Trading Performance ⁽¹⁾



(1) Data obtained from public company filings and CapitalIQ. LTM as of 12/31/09 on 02/11/10 stock prices.

(2) Supply chain management index consists of Aldata Solution Oyj, American Software, Ariba, Descartes Systems, EasyLink Services, JDA Software, Manhattan Associates and XATA Corp.

Recent M&A Activity in Retail Technology ⁽¹⁾

(Amounts in millions of U.S. dollars)

Date	Target	Acquirer	Enterprise Value	Revenue	EBITDA	EV / Revenue	EV / EBITDA	Description
Feb 10	Select Software UK Ltd.	Access UK Ltd.	-	-	-	-	-	Human resource management solutions
Jan 10	i2 Technologies Inc.	JDA Software Group Inc.	\$561.4	\$231.8	\$50.3	2.4 x	11.2 x	Supply chain management solutions
Jan 10	Fredhopper BV	SDL plc	-	-	-	-	-	E-commerce marketing software
Jan 10	Advanced Data Exchange, Inc.	Liaison Technologies, LLC	-	-	-	-	-	Electronic data interchange
Jan 10	TIG Global LLC	MICROS Systems Inc.	-	-	-	-	-	Online marketing solutions
Dec 09	KSS Retail Ltd.	dunnhumby Limited	\$20.8	-	-	-	-	Price optimization solutions
Dec 09	Turnpike Global Technologies LLC	XATA Corp.	\$17.4	\$5.6	\$0.9	3.1 x	19.3 x	Logistics intelligence solutions
Nov 09	Netkey, Inc.	NCR Corp.	-	-	-	-	-	Self-service kiosk and digital signage applications
Oct 09	Ve Interactive Ltd.	Milestone Group plc	\$12.4	-	-	-	-	Cart abandonment solutions.
Oct 09	Stromberg LLC	Kronos Incorporated	\$13.1	-	-	-	-	Time and attendance software
Sep 09	Auctionpay, Inc.	Global Payments, Inc.	\$22.0	-	-	-	-	Payment solutions for non-profit organizations
Sep 09	Easycash GmbH	Ingenico SA	\$426.8	\$126.1	-	3.4 x	-	Card-based cashless payment solutions
Aug 09	Fry, Inc.	MICROS Systems Inc.	\$67.4	-	-	-	-	eCommerce design and development services
Aug 09	Paymode (Electronic payment processing unit)	Bottomline Technologies	\$19.8	\$12.7	-	1.6 x	-	Electronic exchange of payments and invoices
Jul 09	Strategix Enterprise Technology GmbH	JDA Software Group Inc.	-	-	-	-	-	Category management processes and space optimization
Jul 09	TradeTrans Inc.	nuBridges, Inc.	-	-	-	-	-	On-demand business intelligence solutions
Jun 09	Logility	American Software, Inc.	\$55.7	\$41.6	\$9.2	1.3 x	6.1 x	Supply chain management solutions
Jun 09	RetailPro (Substantially all assets)	Multiple investors (Creditors)	\$29.8	-	-	-	-	POS solutions
May 09	Connections Canada Inc.	Wincor Nixdorf AG	-	-	-	-	-	Retail automation solutions installation and service
Mar 09	Interactive Management Systems, Inc.	AFS Technologies, Inc.	-	-	-	-	-	Hardware software solutions for food distribution industry
Feb 09	Connect3 Systems, Inc.	DemandTec, Inc.	\$12.5	\$6.0	-	2.1 x	-	Promotional program management and execution software
Jan 09	LaGarde, Inc.	Dynacomp	\$0.3	-	-	-	-	eCommerce solutions
Jan 09	MYOB Ltd.	Archer Capital, HarbourVest Partners	\$284.7	\$142.4	\$55.0	2.0 x	5.2 x	Retail management, POS and human capital solutions

Mean	2.3 x	10.4 x
Median	2.1 x	8.6 x

(1) Data obtained from public company filings and Capital IQ.