

## Financial Services &amp; Technology

## ISVs/VARs Reshaping Processing Distribution; Integrated Payments Deep Dive

## CONCLUSION

We have conducted a deep dive research project on the integrated payments or integrated point-of-sale (iPOS) channel for merchant payment processing. We have developed relationships with ~15 companies (mostly private) operating in the channel, including providers of business solution software, traditional POS hardware, middleware/gateway solutions, tablet POS (hardware & software/app), and merchant processors. We see an ongoing secular shift of volume to the iPOS channel driven by 1) a strong value proposition for small/mid-sized businesses (SMBs) and 2) the EMV upgrade cycle. The iPOS channel should evolve over time due to the proliferation of new business solution software, new hardware form factors (tablets), and the potential for iPOS merchant processors to become data plays (combining transaction and merchant SKU-level data).

- **ISVs and VARs reshaping processing distribution.** Business solution integrated software vendors (ISVs) and POS hardware value-added resellers (VARs) have become some of the fastest growing SMB distribution channels for merchant processors, partly at the expense of the traditional independent sales organization (ISO) channel. The ISVs and VARs have sticky relationships with SMBs because they provide consultative POS solutions (hardware/software) that are mission critical to merchants.
- **A secular shift reshaping the merchant processing landscape.** The iPOS channel offers SMBs a strong value proposition as payment processing services are embedded in business solution software and integrated into POS hardware systems. Large merchants have the benefit of robust IT departments that are able to integrate their own POS software with sophisticated enterprise management software. SMBs typically do not have such IT resources enabling the iPOS market opportunity. We believe 1) the proliferation of business software solutions and 2) the declining cost of POS hardware systems/tablets are key drivers of the secular shift to the iPOS channel. Only a handful of merchant processors have evolved their business models to be positioned in the iPOS channel. We cover two of them: GPN and VNTV.
- **EMV upgrade cycle likely to accelerate the secular shift.** We believe the preponderance of SMBs still need to upgrade for EMV chip card acceptance and that many will find value in also upgrading to an iPOS system. SMBs already with an iPOS system will need software updates and new hardware attachments (to accept chip cards). ISVs/VARs stand to benefit from the upgrade cycle and an ongoing consultative relationship with merchants due to the increased complexity of EMV vs. magnetic stripe. We also believe ISVs/VARs will increasingly partner with those merchant processors offering the most robust payment processing technology/security solutions and merchant service model.
- **iPOS channel likely evolves over time.** We believe tablet POS solutions have significant growth opportunities given their 1) small relative share, 2) strong value proposition for certain SMBs, and 3) enablement of efficient deployment of business solution software apps. Separately, we believe iPOS merchant processors could become “data plays” over the long-term, if they can combine transaction processing data with SKU-level merchant data from an integrated POS.

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Related Companies:	Share Price:
GPN	84.68
MA	82.25
V	253.13
VNTV	33.54

## RISKS

iPOS channel risks include strength of partnership network barriers, lack of merchant adoption, and slow EMV upgrade cycle.

**ISVs/VARs RESHAPING PROCESSING DISTRIBUTION:  
INTEGRATED PAYMENTS CHANNEL DEEP DIVE REPORT**

**Build, buy, or partner**

Payments industry players have traditionally accessed the highly fragmented small/mid-sized business (SMB) market by either building distribution capabilities (direct sales force), buying distribution capabilities (acquiring a direct sales force), or partnering with those that have distribution capabilities (ISOs, ISVs, VARs). Over the years, many of the large merchant processors built partnerships with ISOs in order to broaden their reach across the highly fragmented SMB universe. ISVs/VARs within the iPOS channel are the newest partners merchant processors are using to access SMBs.

**iPOS overview**

iPOS channel solutions combine the traditional point-of-sale/cash register and payment terminal into a single hardware unit. Large merchants have the benefit of robust IT departments that are able to integrate their own POS software with sophisticated enterprise management software. SMBs typically do not have such IT resources enabling the iPOS market opportunity.

Exhibit 1

**EXAMPLE OF A TRADITIONAL POS SYSTEM AND SEPARATE PAYMENT TERMINAL COMPARED TO AN INTEGRATED POS (iPOS) SYSTEM**



Source: Micros POS system; Verifone payment terminal; Micros integrated POS system

The iPOS channel offers SMBs a strong value proposition as payment processing services are embedded in business solution software and integrated into POS hardware systems. ISVs/VARs benefit by being able to offer merchants a more robust solution (embedded payment processing) and the ability to capture additional revenue tied to payment transactions or a residual on the life of the merchant relationship. Merchant processors benefit from the iPOS channel through higher merchant retention rates and greater pricing stability.

Exhibit 2

Examples of Integrated Payment Solutions
- Integration with popular accounting software such as Quickbooks
- Customer relationship management software
- Timekeeping & payroll related software
- Mobile site platforms and integration; mobile reporting access
- Inventory tracking & management software
- Various levels of automated reporting (including multi-unit) for SMB owners
- Automated software updates through cloud & SaaS based solutions
- Up-to-date PCI/EMV security standard compliance

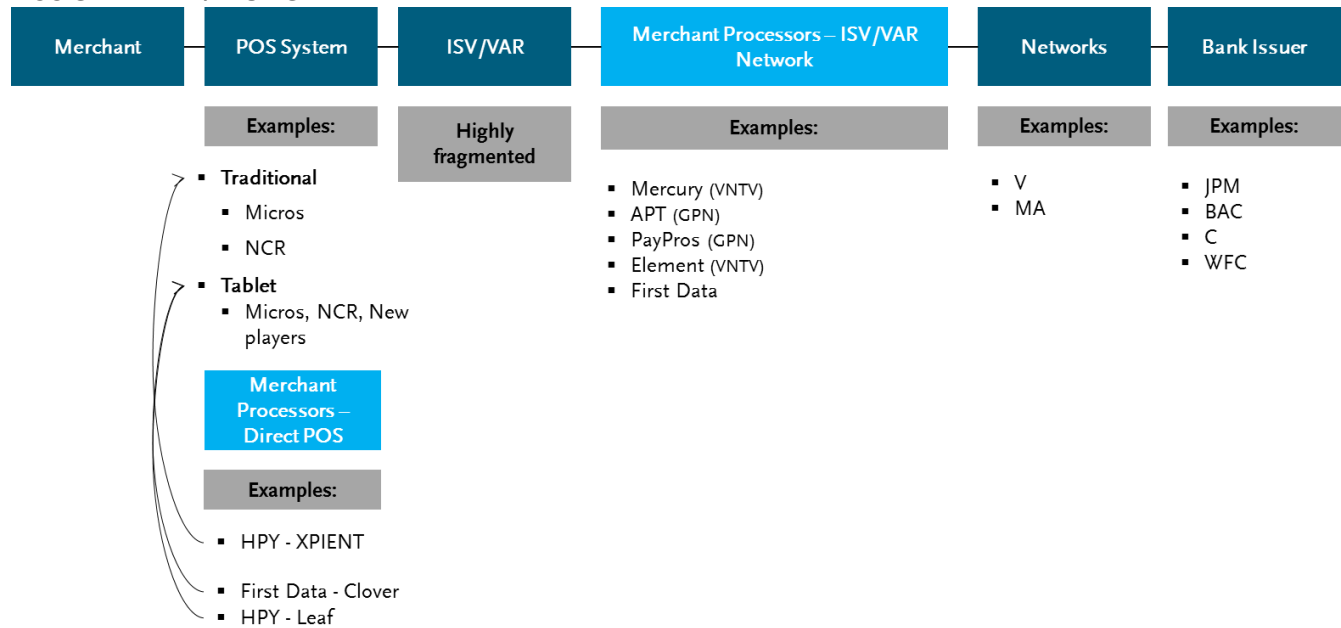
Source: Piper Jaffray

**iPOS strategies**

We believe merchant processors have entered into the iPOS channel via 2 general strategies: 1) build an ISV/VAR partnership network or 2) provide POS system solutions directly to merchants via traditional POS hardware or tablets.

Exhibit 3

**iPOS CHANNEL VALUE CHAIN**



Source: Piper Jaffray

**(1) ISV/VAR partnership network:** We believe Mercury (owned by VNTV) has the largest processing footprint in the iPOS channel, which was built by partnering with ISVs/VARs in order to gain access to the highly fragmented SMB universe. At the end of 2013, Mercury had partnerships with 600 ISVs (software developers) and 2,430 VARs (hardware dealers). Accelerated Payment Technologies (APT) and PayPros (both owned by GPN) have built ISV/VAR networks similar to the Mercury model. We believe First Data has also developed ISV/VAR relationships, as have a handful of other merchant processors/ISOs. The ISV/VAR partnership network model enables merchant processors to achieve scale and scope across the highly fragmented and diverse SMB universe.

**(2) Direct POS system solutions:** Some merchant processors, such as First Data, HPY and certain ISOs, offer tablet POS solutions. HPY is an example of a merchant processor that also offers traditional POS hardware solutions following its recently announced acquisition of XPIENT. Essentially, under the direct POS model, merchant processors vertically integrated in order to own the POS and the merchant relationship, though the direct POS model does not offer the same scale benefits as the ISV/VAR partnership model. We note that First Data also leverages its bank referral partners to deliver its tablet POS solutions to merchants.

**ISV/VAR fragmentation or consolidation?**

We believe the ISV/VAR partner network model will remain the more scalable model as long as the ISV/VAR universe remains highly fragmented. We expect the ISV/VAR universe to remain fragmented as the SMBs they serve are a diverse and fragmented universe demanding ever more customized solutions.

**iPOS channel secular growth drivers**

**iPOS channel gaining share.** ISVs and VARs have become one of the fastest growing SMB distribution channels for merchant processors, partly at the expense of the traditional ISO channel. The ISVs and VARs tend to have sticky relationships with the SMBs because they provide consultative POS solutions (hardware/software) that are mission critical to merchants (easier/cheaper to switch processors than POS systems). Judging from recent trends reported at VNTV and GPN, we believe payment processing revenue/volume growth in the iPOS channel is running at a mid-teens rate while revenue growth in the ISO channel has slowed to low-mid single digits. To be fair, we believe some of the ISO revenue growth slowdown is due to competition driving a giveback of Durbin-debit benefits, so ISO volume growth may be running faster than revenue growth.

**Secular shift to iPOS channel.** We believe the share shift to the iPOS channel is a secular trend driven by 1) a strong value proposition for SMBs and 2) the EMV upgrade cycle.

**Strong value proposition.** The iPOS channel enables payment processing services to be bundled with other business software solutions and integrated into a merchant's POS system. We believe the proliferation of business software solutions/apps and the declining cost of POS hardware systems/tablets have further strengthened the value proposition of iPOS for SMBs.

**EMV upgrade cycle.** We believe the majority of SMBs still need to upgrade for EMV chip card acceptance and that many will find value in upgrading to an iPOS system. SMBs already with an iPOS system will need software updates and new hardware attachments (to accept chip cards). ISVs and VARs stand to benefit from the upgrade cycle and consultative solutions they can provide to SMBs. EMV is more complex for SMBs to manage than magnetic stripe, so we believe some SMBs will increasingly "outsource" security management to their software developers (ISVs) and POS hardware dealers (VARs). In turn, we believe ISVs and VARs will increasingly partner with those merchant processors offering the most robust payment processing technology/security solutions and merchant service model.

**iPOS channel competitive barriers**

We expect additional merchant processors to enter the iPOS channel given the strong secular forces driving share to iPOS. Such action would surely increase the risks of pricing pressure and market share erosion for the existing iPOS channel merchant processors. However, we believe the iPOS channel incumbents have meaningful competitive barriers to protect their economics and volume shares.

**ISV/VAR partnership network barriers:** Some merchant processors seeking to build a scalable iPOS channel presence may seek to replicate the ISV/VAR partnership network model employed by the likes of Mercury, APT, and PayPros. We see several challenges to replicating the network model. First, we believe ISVs/VARs can optimize their iPOS revenue splits by directing most of a SMB's payments volume to one merchant processor in order to receive volume discounts. Second, robust merchant service and payment security solutions (not just revenue splits) are highly important to ISVs/VARs when selecting merchant processing partners. Third, and perhaps most importantly, any new merchant processors entering the iPOS channel will need time and money to build a network of partnerships across the highly fragmented and industry vertical diverse ISV/VAR universe.

**Direct POS system solutions barriers:** Merchant processors can also enter the iPOS channel by directly providing a POS system (traditional or tablet) with integrated payment processing and business solution software. The direct POS model enables the merchant processor to own the POS and merchant relationship, though it is difficult to scale that model across an estimated ~5.7M SMBs in the U.S according to U.S. Census Bureau data from 2011. The direct model also requires the merchant processor to perform new

functions within the iPOS value chain, including software/hardware development tailored for specific industry verticals or a platform (apps) for third-party software developers.

**Security solutions a differentiator.** We believe security solutions are also a differentiator for merchant processors operating in the iPOS channel. We believe ISVs and VARs will want to partner with those merchant processors that can deliver security solutions encompassing EMV, end-to-end encryption, and tokenization.

## Evolving iPOS channel

**Tablets to gain as a POS form factor.** We believe tablet solutions have significant growth opportunities given their 1) small relative share, 2) strong value proposition for certain SMBs, and 3) enablement of efficient deployment of business solution software apps. We believe tablet POS solutions won't work for every SMB as durability seems to be a key issue. Still, we believe tablet POS solutions are a compelling technology upgrade option for SMBs looking to replace stand-alone POS terminals and cash registers. Tablets can also significantly lessen integrated POS hardware costs for SMBs and offer a platform for the deployment of business solution software apps for SMBs. We believe the EMV upgrade cycle and MSFT's XP support stoppage (ended April 8, 2014) will be tailwinds for tablet POS growth.

### Exhibit 4

#### EXAMPLE TABLET iPOS SOLUTION



Source: First Data's Clover point-of-sale solution

**Tablets becoming more purpose-built.** We believe more and more POS tablet providers are addressing durability/compatibility issues by offering tablets designed for payments/business solutions software usage. We are seeing more "souped-up" POS tablets that are also branded with the provider's logo. As many tablet iPOS solutions are cloud-based, software and security updates are easily pushed and automatically installed on merchant hardware requiring less hassle for merchants. Automatic updates help to ease the payments compliance burden for merchants.

**Tablet iPOS solutions are competitively priced.** Traditional POS hardware can be a significant expense for SMB owners with prices reaching thousands of dollars for certain name-brand units. Many tablet iPOS solutions offer discounted or even free tablet hardware as they register for the service. Merchants may also opt to use their own tablet in many cases, like a relatively inexpensive Apple iPad when compared to the cost of a traditional POS system.

We have found that many tablet iPOS solutions providers operate a SaaS-based model enabling a consistent and predictable recurring revenue stream. Based on our research,

tablet iPOS solutions can start around \$25 per month and increase depending on the number of iPOS systems a merchant requires. Additional apps or business software solutions that an ISV provides and a merchant subscribes to may increase that monthly fee. It is important to note that those fees typically do not include payment processing, so merchants will continue to pay transaction fees to the merchant processor partner(s) of the tablet providers.

**iPOS merchant processors as data plays?** Separately, we believe iPOS merchant processors could become “data plays” over the long-term, if they can combine transaction processing data with SKU-level merchant data from an integrated POS. That thesis does face some challenges, however. SMBs would have to agree to make their POS data available to merchant processors. Also, we believe merchant processors would need many SMBs across different industry verticals to have truly valuable data. Still, over time, we see the potential for merchant processors to combine transaction and POS data to deliver targeted marketing programs for SMBs.

**Price targets & risks  
for covered tickers**

**Global Payments (GPN – N):** Our \$92 price target is based on 16x CY16e cash EPS of \$5.75. Risks: Acquisition integration, FX volatility, Canada fundamentals, and Russian geopolitical events.

**MasterCard (MA – OW):** Our \$96 price target is based on 26x 2015e EPS of \$3.70. Risks: Russian geopolitical events, cross-border volume slowdown, and regulatory/legislative risks.

**Vantiv, Inc (VNTV – N):** Our \$38 price target is based on 16.0x 2016e cash EPS of \$2.37. Risks: Acquisition integration and revenue/cost synergy realization, bank referral ramp, and FI segment growth.

**Visa (V – OW):** Our \$265 price target is based on 24.5x CY15e EPS of \$10.82. Risks: Tepid cross-border volume trends, Russian geopolitical events, and regulatory/legislative risks.

## APPENDIX

Exhibit 5

## GENERAL SUMMARY OF MERCHANT PROCESSING CHANNELS

Large Merchants	Description	Small/Mid-sized Businesses (SMBs)	Description
Direct Sales Force	Employed sales force charged with signing on new merchants to the acquirer's platform; massive processing scale needed to compete.	Direct Sales Force	Employed sales force charged with signing on new merchants to the processor/acquirer's platform.
		Independent Sales Organization (ISO)	Independent sales force that contracts with merchant processors. ISOs may have some processing technology, but generally not full processing capabilities (thus the need to partner with a processor).
		Merchant Bank	Partnerships with banks that cross-sell payment processing services to bank business clients
		Integrated Payments	Partnerships with business software solutions providers (ISVs) and hardware dealers (VARs) to create an integrated merchant solution.
		Aggregators	Aggregators bundle many small merchant transactions and batch process those payments with their partner payment processor.
e-Commerce	Increasingly bundled solution for omnichannel merchants.	e-Commerce/Gateway	Online payments gateway enabling e-commerce purchasing for merchants and their clients. e-Commerce services are becoming increasingly bundled with integrated payments solutions to offer merchants a full commerce/business solutions package.

Source: Piper Jaffray

## Exhibit 6

## LEADING MERCHANT ACQUIRERS

Top 20 Merchant Acquirers in the U.S. in 2013	Active Merchant Outlets	Bank Cards (V&MC)			Average Ticket	Other Credit			PIN Debit		
		2013 Volume (\$ mil)	Y/Y Growth	2013 Trans. (mil)		2013 Volume (\$ mil)	2013 Trans. (mil)	Average Ticket	2013 Volume (\$ mil)	2013 Trans. (mil)	Average Ticket
<b>Acquirer:</b>											
1 Bank of America (BAMS)	654,000	\$517,478	2%	10,324	\$50	\$60,440	761	\$79	\$134,400	2,966	\$45
2 Chase Paymentech Solutions	355,000	\$437,961	15%	8,010	\$55	\$75,461	934	\$81	\$54,920	1,280	\$43
3 First Data	996,000	\$431,410	2%	6,450	\$67	\$17,245	293	\$59	\$128,784	3,287	\$39
4 Vantiv	449,519	\$278,561	11%	5,950	\$47	\$48,368	714	\$68	\$213,143	5,434	\$39
5 Elavon	729,726	\$229,443	12%	2,497	\$92	\$25,211	144	\$175	\$17,544	307	\$57
6 Wells Fargo Merchant Services	313,887	\$165,109	20%	1,903	\$87	\$34,322	215	\$160	\$14,964	284	\$53
7 Citi Merchant Services	236,795	\$154,025	4%	6,536	\$24	-	-	-	-	-	-
8 Global Payments	692,667	\$113,548	9%	2,037	\$56	\$5,969	85	\$70	\$8,772	183	\$48
9 Heartland Payment Systems	234,374	\$97,885	2%	2,495	\$39	\$13,255	147	\$90	\$14,960	865	\$17
10 WorldPay	162,337	\$70,592	10%	1,884	\$37	\$17,074	215	\$79	\$26,691	808	\$33
11 TSYS Merchant Solutions	375,508	\$40,378	4%	564	\$72	\$6,428	56	\$116	\$1,580	26	\$61
12 TransFirst	209,301	\$39,228	13%	374	\$105	\$7,785	74	\$105	\$1,050	17	\$60
13 PNC Merchant Services	126,613	\$38,260	8%	591	\$65	\$9,043	61	\$149	\$4,379	69	\$63
14 SunTrust Merchant Services	87,030	\$35,415	5%	441	\$80	\$6,808	41	\$166	\$4,081	76	\$54
15 Mercury Payment Systems	88,745	\$29,193	18%	1,026	\$28	\$5,329	117	\$46	\$2,619	81	\$32
16 Merrick Bank	104,006	\$24,031	-5%	360	\$67	\$613	7	\$88	\$1,175	31	\$39
17 Intuit	497,450	\$23,476	3%	153	\$153	\$6,436	19	\$344	\$860	17	\$50
18 EVO Payments International	340,055	\$22,444	4%	304	\$74	\$4,457	29	\$155	\$1,074	26	\$42
19 Moneris Solutions	102,000	\$22,111	2%	208	\$106	\$3,765	24	\$160	-	-	-
20 iPayment	119,532	\$21,226	-2%	336	\$63	\$3,126	22	\$143	\$1,525	41	\$37

Sources: The Nilson Report, Issue #1036; Piper Jaffray



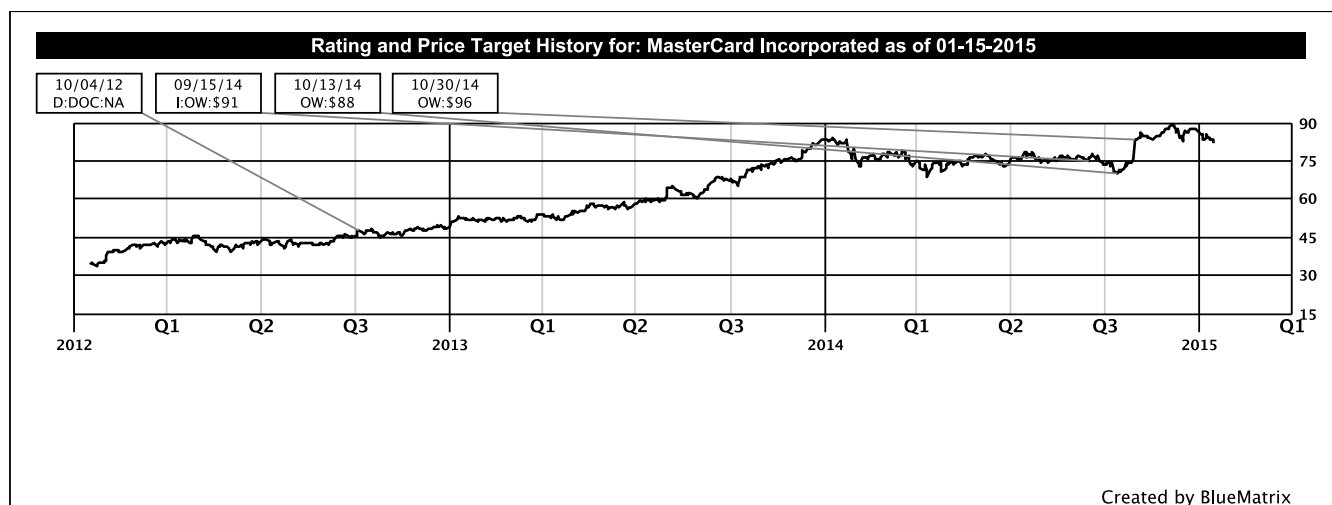
## Exhibit 7

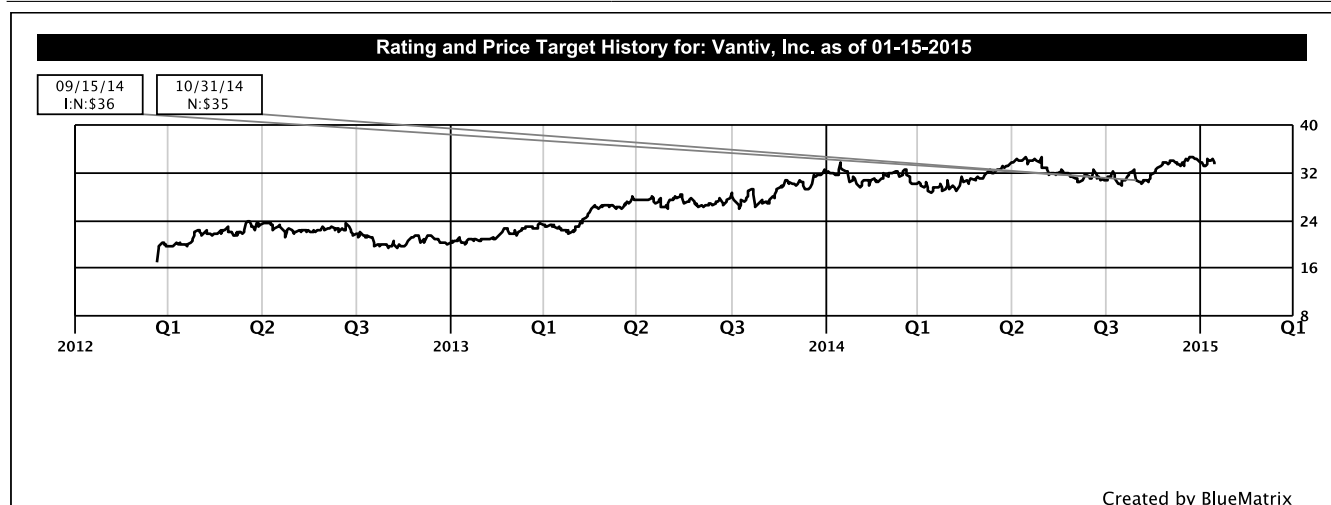
## SUMMARY OF KEY TERMINOLOGY

Term	Abbr.	Definition	Function
Europay, MasterCard, Visa (EMV)	EMV	Global standard for inter-operation of integrated circuit cards (IC cards or "chip cards") and IC card capable point of sale (POS) terminals and automated teller machines (ATMs), for authenticating credit and debit card transactions.	Standardized card security requirements
Gateway		POS systems today connect to a processor using a gateway (or middleware) of some sort. The rationale is that it is much easier to connect to a basic standard API than connect to a processor's platform directly. In addition, many processors, ISOs and acquirers have developed their own gateways for ease of connectivity.	
Independent Service Organization	ISO	Think of the ISO as the sales force managing the end to end relationship for merchants between the merchant processors and bank issuer. The ISO's role is not necessarily one of technology, though many operate gateways and processors, but the role of developing relationships, acquiring merchants, risk management, compliance, servicing, pricing and billing. The billing elements of acquiring often include discount rates (%), transaction fees, monthly fees and compliance costs.	
Integrated Point of Sale	iPOS	Integrated point of sale solutions combine the traditional cash register system with a plethora of business solutions (including software and hardware) and offers built-in payment and card reader hardware. Depending on the solution, merchants have the ability to customize their iPOS solution to their needs and desired hardware.	
Integrated Software Vendors	ISV	Also known as Software Developers, ISVs are the developers of business solutions software for merchants to better run their business. ISVs may offer generic business solutions software or they may create vertical-specific solutions for specific merchants and industries.	Business solution software developers
Middleware		Software that acts as a bridge between a company's POS system and the card processor. Serves as an alternative to a Gateway and provides a direct bridge to the merchant processor rather than another intermediary. Because middleware provides direct integration with a processor through third party software, it is typically used by medium to larger merchants who can afford the software and cut out the gateway.	
Payment Card Industry Standard of Security Compliance (PCI)	PCI	Proprietary information security standard for organizations that handle branded credit cards from the major card brands including Visa, MasterCard, American Express, and Discover. PCI Standards are mandated by the card brands and run by the Payment Card Industry Security Standards Council; the standard was created to increase controls around cardholder data to reduce credit card fraud via its exposure.	
Point of Sale System	POS	A point of sale system typically includes a cash register (which in recent times comprises a computer, monitor, cash drawer, receipt printer, customer display and a barcode scanner) and the majority of merchant POS systems also include a debit/credit card reader.	Micros, NCR
Tablet Point of Sale		New integrated point of sale technology entrant disrupting the traditional iPOS options. These companies offer tablet based solutions along with integrated business solutions software for SMBs.	
Terminal		A credit/debit card terminal is a type of a point of sale terminal that can perform transactions with a credit/debit card. Historically, the terminal has been separate from the POS system in brick and mortar merchant environments.	Verifone, Ingenico
Value-Added Resellers	VAR	Also known as Dealers, VARs serve as the "feet on the street" and distribute point of sale hardware/software to merchants. VARs have a strategic position in that they manage the last mile of the value chain directly with the merchant and often serve as the merchant's point of contact.	Dealers of point of sale systems to merchants

Source: Piper Jaffray

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- R: Resuming Coverage
- T: Transferring Coverage
- D: Discontinuing Coverage
- S: Suspending Coverage
- OW: Overweight
- N: Neutral
- UW: Underweight
- NA: Not Available
- UR: Under Review

Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
<b>BUY [OW]</b>	<b>384</b>	<b>60.76</b>	<b>97</b>	<b>25.26</b>
<b>HOLD [N]</b>	<b>234</b>	<b>37.03</b>	<b>21</b>	<b>8.97</b>
<b>SELL [UW]</b>	<b>14</b>	<b>2.22</b>	<b>0</b>	<b>0.00</b>

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**Analyst Certification — Jason S. Deleeuw, CFA, Sr Research Analyst**  
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