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Paul Jason, Public Gaming: *The mission of JCM appears to have evolved from bill validation to the broader category of commercial transaction-processing.*

Tom Nieman: JCM has always stayed very focused on its core competencies. That is why we are able to push the envelope on innovating. We know our customers and channel our R & D into creating better products for the business and the markets that we target. Transaction-processing systems and solutions have always been our focus. Our corporate DNA originates with the processing of government-issued paper, what we all call 'currency'. Cash registers and bill validation solutions have always been primary to our product line. Since 1955, JCM has always been a forward-looking innovator in those categories and that continues today.

But the category of transaction processing is evolving and JCM is evolving with it. Virtual currency and paper-less transactions are becoming a larger share of the business and we expect that trend to continue. The emerging technology that facilitates virtual transactions is called Near Field Communication (NFC). NFC enables wireless transactions for an extremely close field, about 4 centimeters. As a comparison, WiFi goes up to around 100 meters; Blue Tooth to around 10 meters. But they can't guarantee that the transmission can't be "compromised" or hacked. The benefit of NFC is that it enables maximum security for a wireless transmission. The data encryption is extremely sophisticated. That, along with the proximity of the send and receive points, ensures the high level of integrity required for financial

PGRI Introduction: The buzzword of "convergence" seems to have morphed into "multi-channel distribution". Either way, the concept is simple yet has a profound impact on the gaming, gambling, and lottery industry. The explosion in the variety of games available, the channels of distribution, and the kinds of POS and venues is all consumer-driven. There is also dramatic change in the nature of currency and how consumers pay for goods and services, including casino gaming chips and tokens, and lottery tickets. Transaction-processing technologies are changing and JCM Global is leading the way.

Consumer adoption of the virtual wallet will affect all consumer marketing enterprises, including lottery. JCM has established itself in the most preeminent position in all matters of transaction-processing technology. Now, JCM is pioneering the technology of paperless transactions. Tom Nieman has a long history with the lottery industry, working in the Scientific Games division of Bally Technologies (which owned Scientific Games) to assist in the launches of the Iowa, California, and West Virginia lotteries.

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and other types of sensitive transmissions.

The consumer device that will make best use of NFC is likely to be the smart-phone. A virtual wallet housed within your smart-phone can be the tool to execute a transaction with no cash or paper exchanged. JCM is integrating this new NFC technology into our systems and creating new solutions that will enable the consumer to execute virtual, or cash-less, transactions. The Japanese consumer is already past the early adopter stage of this technology. NFC-enabled smart-phone applications are used every day by the majority of Japanese consumers.

Why is NFC technology being embraced by the Japanese consumer ahead of other global markets?

T. Nieman: All new technologies need a driver to push it over the threshold to gain widespread consumer acceptance. Once it gets past that proverbial 'tipping point', consumer adoption explodes. For small business computing, it was spreadsheet applications. For the internet, it was e-mail. For NFC technology to take hold in Japan, the driver was Public Transportation. Much more than anywhere else in the world, public transportation is an integral part of the life of every Japanese consumer. The traffic congestion is such that everyone uses public transportation. So, anything that can make the whole system faster and more convenient is going to get a quick and positive response from the consumer. NFC enables the commuter to load their smart-phone with value without standing in line at a kiosk. That's a huge timesaver and an incredible convenience. It is interesting to see how incredibly easy NFC-enabled smartphones are to use. Women don't even remove their phone from their purse when passing the turn-style. Just like ATM usage in the sense that as soon as the consumer gets familiar with it, they can't imagine how they ever endured the inconvenience of dealing with a bank teller every time they needed cash! And also just like with the ATM, it needed to be demonstrated that it would work flawlessly 100% of the time. The consumer needs to be 100% confident that the transaction is executed accurately, that the records are all posted and updated correctly, that everything is performed without a glitch. After all, this involves money and identity, so there is zero tolerance for error of any kind. The ATM was introduced over twenty years ago and the consumer is much more sophisticated now. It still takes time, but the willingness to accept and the ability to learn a new technology is much more evolved now.

Easier for the consumer, for the operator, for everybody, for all the stakeholders impacted positively by the benefits that came out of NFC. So I don't know if each market will need to find its first mover, its primary driver, but there needs to be something like that for a German market to get onboard; for the U.S. market to get onboard; for others all around the world to adopt a new technology.

The Japanese consumer has evolved the NFC technology adaptation because it fulfilled its promise – convenient, accurate and secure. A day does not go by without the Japanese consumer using the NFC technology to buy lunch at McDonald's, to board an airplane, to access a restricted area, or to buy a lottery ticket. The NFC enabled mobile has become an integral part of their lives.

I think it is just a matter of getting familiar with and learning to trust the technology. It took a couple of years for the application of NFC technology to mobile to become widely accepted in Japan. But it's just like any new technology.

JCM Global is the worldwide leader and most trusted name in currency and transaction management. JCM began over 50 years ago as a manufacturer of cash registers, continues today as a worldwide leading manufacturer of cash registers, and has since leveraged its core competencies and IP into a diversified range of industries, including gaming, vending, retail, financial, transportation, security, and custom applications. JCM's market share is around 75% in its core product categories. In 1981, the company began to construct and sell bill validators for the Japanese Yen. As more and more U.S. currency notes were in worldwide circulation, JCM evolved its bill validator for U.S. currency and the Deutsche Mark in 1986. In 1987, JCM Gold (Hong Kong) was established as the first overseas manufacturing plant for JCM's cash registers. JCM American was incorporated in the U.S. in New Jersey, and opened offices in Düsseldorf in 1999 and the UK in 2004.

The company entered new territory in 1988, when JCM applied its technology and skill-sets to the business of handling money and dispensing tokens for the pachinko and patchisuro parlors in Japan Building on these ideas in the U.S., a revolutionary new concept was created: a side-mounted bill validator for casino gaming devices. The idea was met with success and JCM sold side-mounted bill validators for machines that dispensed rolled coins, and the casinos realized a dramatic increase in consumer play and satisfaction. This success led to the development of the first up-stacker validator, and in the early 1990s, a partnership was forged with leading slot manufacturer IGT to deploy the new device in IGT video lottery machines (VLT's).

JCM's innovative spirit led to the development of its unique embedded bill validator with lockable and removable cash box. The unit's design satisfied the requirements and regulations of the major U.S. gaming jurisdictions, and as a result, that design played a major role in the implementation of the bill validator in the gaming industry - something that more than 1.5 million slot machines around the globe depend on today.

JCM's expertise in the bill validator business has resulted in the development of strong working relationships with the U.S. Treasury and the Bureau of Engraving and Printing. This relationship allows JCM to routinely meet with these agencies as new currency is developed, provides access to new prior to general distribution, including overt and covert security features being incorporated into banknotes, and enables JCM to have software upgrades available for operators before consumers have newly designed currency in their hands. In addition to staying ahead of legitimate currency changes, JCM also stays on top of technology used to create counterfeit money, and meets with the government when new counterfeits are detected to ensure new software can be developed to detect and reject counterfeits.

JCM's innovative spirit has always led to the creation of products that are technologically innovative, and the company's work has been recognized with several patents and trademarks. With a solid track record, today JCM offers a wide range of capabilities including currency recognition/validation, operational intelligence/intelligent report, micro transport, magnetic and optical sensing, contact image sensing (CIS), bulk note acceptance, note recycling, note centering and thermal printing. Other innovative product features include the ability to dispense customer paper tokens, cash, coupons or tickets, barcode reading technology, intelligent cash box technology, international currency acceptance for up to 80 countries and much more.

JCM believes in constant innovation, growth, and diversification. In addition to the company's core of engineers, every employee at JCM constantly strives to conceive of innovative solutions to improve the cash-handling process. We picture ourselves not as vendors, but as partners with our clients, deepening relationships by listening to their challenges, and creating leading solutions.

JCM GLOBAL EVOLVES IVIZION'S "FOUNDATION OF INTELLIGENT VALIDATION"

JCM Global, is helping casinos everywhere evolve their gaming floors to be even more accurate, secure and rewarding. JCM Global's collection of highly evolved products are helping operators be even better, smarter and faster than ever.

JCM is evolving its award-winning iVIZION® bill validator, building on iVIZION's foundation of intelligent validation. iVIZION is the most advanced bill validator the gaming industry has ever seen, and the product has been breaking sales records around the world. iVIZION is evolving with JCM's new DNA (Dynamic Network Applications), an incredible set of bundled enhancement tools that empower gaming operators to do much more than ever thought possible, and in real time.

Operating wirelessly or hard-wired, DNA passively monitors the EGM "SAS" line for critical housekeeping data, while securing two-way communication with all critical peripheral components. With JCM's DNA, operators can get extensive reports in real time and deliver firmware updates instantly, with no downtime, across the entire operation. DNA also enables regulators to instantly verify peripheral devices, software versions, view reports and more. DNA can facilitate promotional coupon printing or random bonus. DNA can deliver and publish content to EGM digital displays from a central server., offering concierge services or other regulated gaming opportunities. In other words, this original technology is even further enhancing profitability, productivity and efficiency.

The evolution continues to table games with the new iV8™ table game bill validator, which gives operators "Intelligent Validation At 8 Notes Per Second." The revolutionary iV8 bill validator was developed specifically for the high-volume table game marketplaces like Macau and Singapore. iV8 has a compact, sleek, streamline design and has been proven to increase play time. JCM will show iV8 at the upcoming ICE trade show.

Also at ICE London, JCM will demonstrate Mobile Wager Wallet™, the world's first fully interactive mobile wager network that allows players to pre-load their virtual mallet for use at casino EGMs.. Mobile Wager Wallet delivers mobile transaction capability across the entire casino operation, quickly, easily and securely.

TRANSACTION-PROCESSING GOES MOBILE

JCM Global, Techfirm Inc. and NRT Technology Corp. have teamed together to introduce The First Fully Integrated NFC-Based Interactive Mobile Wager Network That Connects Player, Mobile Wager Wallet, ATM and Gaming Device. This integration allows casino patrons to withdraw virtual funds from ATMs onto their phone and into their mobile wager wallet for use at electronic gaming machines, and potentially at retail, food and entertainment venues within a casino property. Additionally, players can transfer virtual funds from the MWW back in to their account on the NRT ATM, or dispense funds, if desired.

This refinement and integration are major steps forward, further evolving JCM and the JCM product line, which will continue to help operators evolve their casino business.

JCM Director of New Product Development Brian Montano said, "JCM has long been the leader in automated transactions in the gaming industry, and has a long history of bringing stakeholders together to advance technology. We are thrilled to bring the major players of Techfirm, NRT and JCM together for a project of this magnitude that will be a game-changer for the industry."

The market for mobile-based transactions is anticipated to grow quickly in North America, and Google recently announced its launch of a "Google Wallet." Additionally, all mobile providers are now equipping their smart phones with NFC technology. ♦

JCM's strength is that you pioneer new technologies even while dominating the markets for the products based on current technologies. That is especially true for your bill-validators, isn't it? I read that you won every single RFP over the past 12 months.

T. Nieman: Not exactly correct. We won every RFP that we responded to. We chose not to respond to a few because their requirements to deliver within a tight timeline exceeded our manufacturing capacity. So we had to walk away from some of the business. In spite of that, we still have around 75% of the North American market in bill validators.

And you are pioneering the application of NFC to transaction-processing, a trend which would seem to cut into the market for bill-validators. Why disrupt markets that you already dominate? Aren't you concerned about cannibalizing your cash-cow?

T. Nieman: First, it's not as if currency is going to go away. And because criminals and cheats aren't going away either, the need for secure and increasingly sophisticated bill-validators will continue to grow for many years to come. Second and perhaps more importantly, JCM is a customer-focused company. We go wherever the customer wants us to go. We are confident that our core competencies position us better than anyone else to meet the need for virtual-transaction-processing systems. JCM has combined the currency bill validator and the virtual transaction processing system into a single device, creating cost savings, lower cost of ownership, and transactional synergies. Rather than have a BV and a second system for NFC transactions, we consolidated for operational benefits, consolidated accounting, etc.

And we feel that if we keep raising the bar on ourselves, always being the first to embrace the future and deliver the best products that meet the emerging consumer trends and not just the current tastes, that makes it very difficult for anyone to ever catch up or leap-frog us. The fact is that the consumer markets are evolving. The consumer is much more willing than ever to embrace new technology. And as they understand the benefits of technology and become quicker to adopt new time and money-saving technology, like smart-phone-enabled virtual transactions, their learning curve becomes shorter and easier. That in turn makes them more disposed to accepting change and new ideas. It's Bill Gates' concept of a positive feedback cycle. And what it means to us is that there is no time to waste. We are anticipating future trend lines because the future is happening much more quickly than anyone is prepared for.

The smart-phone is perhaps the most important case in point. Consumer adoption of the smart-phone has now passed the proverbial tipping point in almost all markets. Now, more applications and capabilities make it the most indispensable consumer tool. I'm more likely to forget my wallet than my smart-phone. But to your question, Nokia dominated the cell-phone business and should have been the ones to lead the market disruption that migration into smart-phones produced. But they didn't, perhaps because they were concerned about cannibalizing their profitable cell-phone business. It was Apple, which had a big hit on its hands with the i-pod but had absolutely no presence in the mobile business, that created the product that revolutionized the

industry. Others are now introducing products to compete with Apple, but I would expect that Apple intends to be the one to continue to raise the bar on themselves faster than anyone else. Or look at Amazon. They dominated the online book-selling sector, they leveraged their core competencies in online commerce to move into new consumer product categories every day, and yet they are the ones who seem to always be delivering great new upgrades in the online shopping experience and consumer service. And of course, Blockbuster Video is the poster boy of hanging with its legacy business instead of evolving with the consumer. We all need to run fast to keep up with the consumer and that is what JCM is committed to doing. We want to be the ones to keep raising the bar of high-performance, customer-centric innovation.

The fact is that the consumer is evolving with or without us. There will always be someone stepping up to give the consumers what they want. So, frankly, it's just not smart business to try to protect your cash-cow; at least not anymore. JCM has always innovated without regard for anything other than delivering a better customer experience. So we are adapting quite well to an environment that is so fast-paced that development of the next generation products has to start yesterday.

So you are projecting that the virtual wallet will be in the form of a smart-phone with many of the consumer transactions enabled by NFC technology; that this will form the basis for many transactions, including buying tickets to play on Electronic Gaming Machines and to buy lottery tickets. And so you built NFC technology right into your newest breakthrough product, the iVIZION. You must have envisioned the importance of NFC many years ago to get it into a current product?

T. Nieman: JCM's R & D team had to think ahead on all aspects to create iVIZION. The iVIZION is the most technologically advanced system of its kind and so we need it to be capable of serving the next generation of transaction-processing needs, which include smart-phone wallets enabled by NFC. When we first introduced iVIZION to the marketplace, we called it "The Foundation of Intelligent Validation," and NFC is just one example of how we are building on that foundation. Another is our Dynamic Network Applications, or DNA, that give

operators an incredible wealth of applications from firmware updates to real-time reports and more. Another is iVIZION's ability to scan and capture a note's entire image. Bill validators in the past captured a piece of a note, and with iVIZION, the entire note or ticket is captured, and the uses for those images range from e-storage to anti-counterfeiting. Another is the DNA application that allows for remote firmware uploads from a central server via the wireless encrypted eco-system, eliminating the need to do it on a machine by machine basis. This reduced machine downtime, optimizes the latest firmware for increased acceptance rates and ultimately increases revenue.

The Japanese have a ten to fifteen year horizon. They are traditionally and culturally inclined to think in the long term. They pay little attention to short term results because they are so focused on envisioning the future and preparing for it. The iVIZION is the ultimate system for enabling the current modes of bill-validation to be executed in the most secure environment, as well as have the capability to evolve with the market-place for another ten to fifteen years.

What are some of JCM's most important new installations?

T. Nieman: JCM had an absolutely incredible 2012, a record-breaking year actually. In traditional casinos, tribal casinos and in VLT operations, we have had tremendous success with iVIZION, and our PayCheck 4 thermal printer product; in Europe our note-recycling UBA-RC was a key reason we are nominated as Best Street Supplier in the IGA Awards again this year.

Specific to iVIZION, properties have been processing record amounts of currency with the validator. For example, at three casinos in Ohio, iVIZION bill validators processed a combined total of over \$1 billion in just 30 days. Resorts World Casino New York had similar results, with iVIZION processing over \$14 million in 10 days.

The operator feedback we have received regarding iVIZION's performance has been extraordinary, and as we've discussed, because iVIZION is the foundation of intelligent validation, the industry can continue to expect JCM to evolve and produce more innovative products that move the industry forward. ♦