KRISTIAN NYLÉN

KARINA FIRME

SALIM ADATIA

Lottery and Cloud Computing
Don Stanford, GTECH

FEATURE INTERVIEWS:

Karina Firme
Hebara, the Operator of the
State Lottery of
Rio de Janeiro – Loterj

Kristian Nylén
Kambi Sports Solutions

Salim Adatia
GLI Interactive

Atlantic Lottery

INSTANT SALES
SURGE AT ALC
Jean Marc Landry

PENNSYLVANIA LOTTERY

CREATING THE WIN-WIN
FOR LOTTERIES AND RETAILERS

Socially Accepted Games
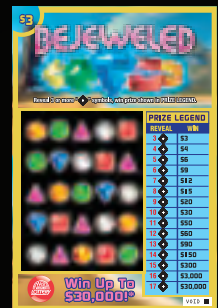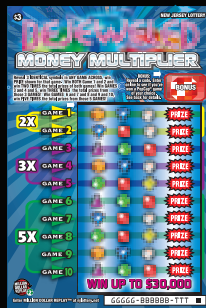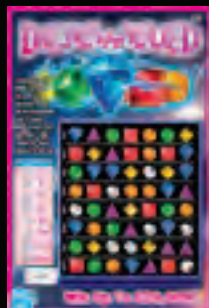
Add Sparkle to Your 2nd Chance Promotions with Bejeweled®

Every 4.3 seconds, a Bejeweled game is sold. This global brand appeals to the masses and creates compelling lottery games and 2nd chance promotions that attract both core players and the emerging market. Dazzle your players by launching a custom Bejeweled game complete with a multi-level, 2nd chance promotion and social-media-driven sweepstakes. GPC offers 100% turnkey support for all 2nd chance promotions, from design to implementation and tracking to fulfillment.

To learn more about Bejeweled 2nd chance promotions visit us at www.gtechprinting.com or scan the QR code on the bottom left corner of this page with your smartphone.
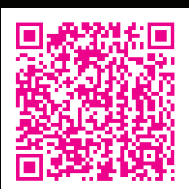
BEJEWELED

GTECH®
Printing Corporation

PUBLIC GAMING INTERNATIONAL

PUBLIC GAMING

PGRI

RESEARCH INSTITUTE

Features

Feature Interviews and Editorials

www.publicgaming.com Visit our website to get the latest breaking lottery news. And sign up to receive PGRI's weekly Morning Report.

So small
So powerful

Genion

YOUR Genius Terminal

INTRALOT is proud to introduce its newest innovation, Genion, an extremely versatile, agile, robust and very compact terminal serving retail clerks' requirements, as well as players' self-service needs. Genion performs flawlessly as a **Digital Play Slip Reader, Game Validation and Payment Terminal, Ticket Checker, Players' Club Access Point** and **Player Advertisement Display**, all in one very compact unit.

Genion is the perfect choice for forward-looking Lotteries worldwide that wish to offer to their retailers and players a miniature terminal that guarantees maximum performance.

Winner!

Genion

intralot

www.intralot.com

From the Publisher

Paul Jason, CEO, Public Gaming International Magazine

I sometimes ask which is more important, innovating in game design or increasing consumer access to the product. While both are important, it does seem like the consensus is that increasing consumer access to the products is the key to increasing sales. **Jean Marc Landry** describes the turnaround of the Instants category at the **Atlantic Lottery**. It really was a 360 degree initiative, involving all aspects of the business and extensive consumer research to drive redesign of the existing games and invention of new games. One exciting take-away for me is the incredible potential that updating existing games has for increasing sales; in this case turning a negative trend-line into a growth category. The other is that "relevant access expansion" seems to be key to any plan to increase sales.

That is certainly the case at the **Pennsylvania Lottery**. They increased consumer access by opening up two large chain stores. Penetrating the "big-box" channel has been the holy grail of expanding lottery's retailer network. One challenge has always been that chain stores do business their own way, suppliers are expected to adapt. So that is what the PA Lottery did - They worked with the customer to figure out what needed to be done and found creative solutions that enabled the large network of chain stores with their own rules, systems, and procedures to sell lottery products. It has always been a point of major frustration that problems with accounting and reporting procedures and other

details would shut lottery out of the chain stores. In Pennsylvania alone, this adds up to **hundreds** of new retailers. And tens of millions of dollars in sales (as in $72 million in less than two years). We talk a lot about "innovation" which can be elusive, hard to implement, hard to even define. Maybe the big results can be achieved by flexibility, creative problem-solving, tenacity, and execution.

In the category of huge amount of "buzz" without the commensurate volume of understanding, I give you cloud computing. When GTECH's **Don Stanford** agreed to clarify the implications that this new technology has for lottery operators, I had no idea it would turn into this comprehensive yet easily grasped and concise assessment of all the things that cloud computing is and isn't.

One of my first inspirations for turning our attention towards Latin America was Hebara's **Karina Firme**. In my simplified world-view, I had always assumed that innovation flowed from mature economies and over to emerging economies. As emerging economies and markets were able to integrate the technologies and business processes practiced in mature economies, the emerging economies would prosper and attract more capital investment which would create consumer markets that would further stimulate demand. The positive feedback cycle that ensued would accelerate growth etc. and then we would all be so happy. Coincident to my discussions early this year with Karina, I read an article that talked about "reverse innovation". The basic idea is that while it

GTECH WORKS FOR ME

"One reason why my lottery sales have grown is because I treat my customers like they are special. But just as important is the fact that GTECH, working with the lottery, treats me like I'm important too; they are always there for me. When I let Denise in GTECH product marketing know my scanner wasn't working well, right away

may be the case that consumer markets, stages of technological development, legacy gaming cultures, legacy communications infrastructures, and legacy everything, does differ from country to country and jurisdiction to jurisdiction, we can still learn from the experiences of others. More specifically, the thesis of "reverse innovation" is that mature markets can potentially learn from the solutions being created in emerging markets. To observe the ways in which creative leaders are overcoming obstacles in different and in many ways more difficult situations serves not just as an inspiration; it also provides material insight into the nascent solutions applicable to the 'unique' set of circumstances that every individual lottery operator is facing.

Latin America represents a huge growth opportunity. The impact that technology and innovation will potentially have on a region that is not as invested in legacy infrastructure is huge. For instance, an obstacle to growth of the lottery industry in emerging economies is the higher percentage of sales that must be spent on distribution. The number of retailers per capita is a fraction of what it is in mature markets; the commissions paid to those retailers is higher; other costs of sales are higher; resulting in a lower a lower prize-payout percentage and less attractive value proposition to the consumer - and all this adds up to a challenging business model. It also adds up to an incredible opportunity for creative problem solving to combine with technology to unlock the value of this tremendous market. What if Latin America could leapfrog multiple generations of land-based communications and transaction-processing infrastructure and adopt new media technologies to connect with the retailers and the consumer? And/or, isn't it likely that the solutions to some of these LatAm challenges could inform the process of driving progress and modernization of lottery operators in the more mature markets. The premise of reverse innovation is that the flow of innovation that drives progress is now working in both directions.

It's not really industry visionaries that drive progress and innovation. It's the consumer who is the real driver. It's our job to discern the trend-lines being driven by the consumer, adapt our business strategies accordingly, and hopefully stay out in front of those trend-lines (or at least out in front of our competitors!). As gaming operations are being complicated by new technologies and multi-channel approaches to distribution, the need to evolve our methods of protecting the security of the systems and the integrity of the games becomes more pressing and more complex than ever. Gaming Laboratories (GLI) has been the gold standard for helping lotteries, gaming operators, and regulators accomplish just that. **Salim Adatia** distills the complex world of systems security into the basic principles and fault lines that need to be understood by all top executive staff including the CEO. The job of implementation may fall on the CIO, but the priceless value of an operator's reputation depends upon the active engagement of the entire executive staff.

Sports-betting is probably the fastest-growing segment of the gaming industry. That is true whether it is regulated and taxed, as it is in some markets; or not, as it is in others. One reason for the explosive growth in sports-betting is that the consumer experience is being transformed into the proverbial "interactive" play that gaming operators are striving for. Even if sports-betting is not a part of our business future, the explosive growth of live in-play betting can tell us something about the nature of games in general and what appeals to the consumer. Kambi Sport Solutions' **Kristian Nylén's** is on the leading edge of this phenomena and illuminates the implications for the sports-betting industry but just as importantly for how the consumer is driving change in how operators deliver a genuine game-playing experience.

Thank you all for your support. I welcome your feedback, comments, or criticisms. Please feel free to e-mail me at pjason@ publicgaming.com.

LOTTERY EXPO 2012

Co-Hosted by PGRI and The Florida Lotter y

The Best Way to Predict the Future is to Create it.
Abraham Lincoln

The gaming, gambling, and lottery industry is being reshaped as we speak. Changes in technology, regulations, and consumer tastes are creating tremendous opportunity just as they are obsoleting much of what has worked in the past. The future is being shaped by those change-agents who are proactively setting the ground rules for our industry. Team Lottery is in the position to take action and shape its destiny - which is a very good thing because it may well be that the only way to predict the future is to be the ones who create it.

Lottery Expo will be a very special program, including world-class speakers from all around the world, an imaginative new approach to eliciting fresh insights and provocative discussion, a special track for Latin American Lotteries to complement the traditional focus on North American lotteries, three receptions, three luncheons, three breakfasts (i.e. lots of time to meet with colleagues and discuss the topics of the day), and most of all ... a mission to make a real difference in government gaming. Simultaneous translations, English-Spanish and vice-versa, will be available. This will be a uniquely great conference experience - Please join us!

Monday, October 22: 5:00: Opening Night Reception

Tues, Oct. 23: U.S. focused conference sessions

Weds, Oct. 24: Joint U.S. and Latin America Sessions

Thurs, Oct. 25: Focus on Latin America

Three Receptions and luncheons provide lots of time to visit with colleagues

For complete Lottery Expo info, including registration materials and conference updates: www.PublicGaming.org

Para más información llame a: Paul Jason al EE.UU.+ 425-449-3000 O
vía e-mail: pjason@publicgaming.com
La Exposición de Lotería PGRI tendrá lugar en el fabuloso Hotel Trump Miami(www.trumpmiami.com).
Se proveerán traducciones simultáneas al inglés y español en el curso de los tres días.

THANK YOU TO OUR PLATINUM SPONSORS

Atlantic Lottery

Jean Marc Landry

Senior Category Manager, Lotteries & Instants, Atlantic Lottery

THE HOCKEY STICK EFFECT:
ATLANTIC LOTTERY'S TURNAROUND OF SCRATCH'N WIN

PGRI Introduction: The consumer is now being exposed to easier access to a wider variety of games than ever. By far. This increasingly crowded market makes it more challenging for lotteries to grow market share for the traditional games. Increasing the price points can work for awhile, but does not really solve the long-term problem of how to truly capture the imagination of the consumer. We need a product development approach and distributional strategies that produce sustainable growth.

Noticing that Atlantic Lottery produced some outsized results in the Scratch'N Win category, I asked Jean-Marc Landry if he would address some of these questions as well as the specific success story for Atlantic Lottery's surge in Instants sales.

Paul Jason, Public Gaming: *What has been the recent sales trend line for the Scratch'N Win category?*

Jean Marc Landry: Over the last 3 years, we have achieved amazing results in Scratch'N Win. We have been able to reverse what was a steep sales decline and have seen our sales grow from a low-point of $160.5 Million in 2008-09 to record-breaking performance of over $187.3 Million in 2011-12. Over this period, our sales have increased by 16.7%, and we're still seeing them grow today.

What caused you to think you could reverse that trend line? Why focus resources on that category instead of others?

J.M. Landry: About 5 years ago, a compelling rejuvenation strategy was set forth by our current Managing Director of Sales & Marketing. Working with our Scratch'N Win vendor, as well as our lead advertising agency, the strategy looked at all aspects of the Scratch category, from product to prize payout, as well as price point and communications approach. The most important component of the strategy was the carrot it dangled for internal stakeholders. This carrot was a bold stretch target of $200 Million in sales over 5 years. The strategy's name? Fittingly: TarGet.200.

What did some of your initial analyses tell you about why the category had

been in decline and what you might do to reverse that decline?

J.M. Landry: As is surely the case with many lotteries, our analyses suggested that an increase in prize payouts, married with a better variety of games & price points could deliver strong returns. This insight was developed with our Scratch'N Win vendor who brought forward a formulaic approach to predicting revenues based on the implementation of the strategy. But this was only part of the learning. The other major component was in uncovering the reasons why players were leaving the category. We commissioned a "lapsed player research" study which suggested that players were becoming disenfranchised with the category due to their perception of lack of winning, either personally or by others. Both of these studies acted as key pillars in setting forth the rejuvenation plan.

What specifically did you do to reinvigorate sales growth of the Instants products?

MORE GAMES.
MORE GAINS.

MEGAHITS

30 YEARS'
EXPERIENCE

59%
MARKET SHARE

392%
ABOVE-AVERAGE
PERFORMANCE

LET OUR LEADERSHIP BRING A CUTTING-EDGE EXPERIENCE TO YOUR FLOOR.

Being the leader in developing and installing video lottery terminals across multiple jurisdictions has enabled us to pioneer new technologies within the space. Our innovations, such as the industry's first interstate Wide-Area Progressives, have given players the most rewarding experience in the category. And a more exciting experience for the player means more repeat business for your establishment. **Contact your IGT Account Manager for details.**

IGT BUILT TO PERFORM™

J.M. Landry: I can tell you that this project was a true team effort – championed by all involved parties. Here are the top 6 drivers of the rejuvenation, all brought to you by the letter P:

1. **Payout:** In 2008-09, we raised the blended payouts from approximately 60% to 63.5%. The payout adjustment began in April and was fully rolled out in September 2008.

2. **Price Point:** In 2009-10, we began our price point expansion program. We laid out a 3-year plan that would see our average price grow from $2.48 to over $3.

   The major components included in this rollout were (1) setting all Extended Play games at a $3 base price, except our #1 SKU which is $2 Crossword, (2) rapidly developing the $5 Quick Play category, and (3) finding strong product entries at the $10 and $20 price points, mostly done through national tickets, Core Game extensions ($10 Crossword) and special Holiday Packs.

3. **Product:** In adjusting our pricing strategy, we re-calibrated the entire value proposition of our category – with the mantra "you pay more, you get more." We re-aligned our payouts, odds, ticket sizes and printing features to deliver our strongest value at the $4 and higher price points, while maintaining good value at $1, $2, and $3.

   We conducted primary research on instant ticket design elements, to better understand which ticket elements would be best suited for which audiences.

   We implemented a series of best practice metrics for the category, and enhanced our internal processes in terms of calendar planning, game briefing, process tracking and post-launch evaluations. These key changes were instrumental in raising the bar in terms of applying proper rigor and discipline to the development of Scratch'N Win tickets.

4. **Promotion:** A key ingredient to our strategy has been the rollout of the popular 2nd Chance program, which gives players chances at entering non-winning tickets for a second chance at winning a prize. Currently in its 3rd year, this program was designed to solidify our player base, which was in state of decline over the previous few years. The 2nd Chance program has attracted over 100,000 unique members and receives over $10 Million worth of ticket entries a year. This program has not only driven positive perceptions of Scratch'N Win and Atlantic Lottery, but it has also helped to arrest our player base erosion issue. Since its implementation, player base has stabilized.

Another successful tactic has been the rollout of our "Top Prizes Remaining" campaign for Set for Life, which treats the available top prizes remaining in market very similarly to our Jackpot Alert program on Big Lotto. This tactic has been extremely successful in generating sales boosts (and positive ROI) in periods when ticket sales needed a boost. We have since rolled this approach out to all "Jackpot Style" tickets in Scratch'N Win, sharing a 52-week media buy with our Big Lotto category.

5. **Partnership with Sales:** Building off the impulse-nature of the category, a key ingredient to our success has been a revitalized partnership with our Sales counterparts. As a "one-team" entity, we have delivered consistent focus from paid media to point of purchase, every single month since the rejuvenation strategy has been implemented.

   Marketing programs are supported with in-store promotion and key account programs. Weekly meetings focus on ticket performance, priorities and launch calendars. The best part is that success is shared among all.

   The sales team implemented a series of programs to reinforce Scratch at Point of Purchase. These included a special focus on top-tier accounts, a retailer incentive, incremental merchandising units as well as store-based and chain-wide promotions.

   One of the best activation programs happens during key gifting seasons during the year, including Mother's Day and the Christmas Holidays. During these occasions, the sales team bundles $10/$20/$25 worth of tickets in themed mugs. These allow us to not only provide value for higher priced purchases, but it also enables us to sell through both popular and slower moving tickets.

6. **Profit:** On top of all these efforts to rejuvenate demand for the category, we also proactively sought out opportunities to enhance profit margins.

   During the process of re-aligning our value equation, we realized significant cost savings in print costs for our $2 tickets, which were shortened from 7.33" high to 6", and in which we removed all varnish coatings from the printing process.

   We also sought out opportunities to reduce our costs in other areas supporting the strategy. One key change was an increase in pack sizes for $2 Crossword (50 to 100), all $3 games (30 to 50) and in select other games at higher price points – where we knew that retailer demand could support the increased pack size.

   In order to manage our destruction costs, we right-sized our print quantities based on optimal in-market timing by price point, which yielded significant savings in ticket destruction.

   We are now working on a cross-divisional project to minimize ticket returns, in part through better ticket allocations, and in part through smarter planning on returns themselves.

What will you be doing to sustain the growth?

J.M. Landry: This is the golden question. I firmly believe that the market for Instant lotteries will remain strong for years to come. How the games are specifically delivered to players, however, will need to evolve.

In the Retail space, we are seeing a rapid transition of the independent C-Store model to corporate chains and big box stores. While consumers are converging their shopping needs in fewer trips to the store, and leveraging new technologies to process transactions for other needs such as gas (pay at pump), they are being exposed less-and-less to our category. This means we need to remain relevant in how we deliver in this new context. To this end, we are evaluating opportunities to distribute our product at new and different chains. Such an effort has allowed Atlantic Lottery to sell its products at Wal-Mart locations in Atlantic Canada. We are also evaluating the potential of deploying Self-Serve machines to select groups of retailers.

Bigger picture though, our efforts in consumer research and player segmentation suggest that the digital world is very much a real proposition to our players. From unregulated offering of Instant & Casino games to the sharp rise of Casual games and even Social Media, Digital Entertainment has landed on our player's radar and is capturing valuable 'share of time' in the lives of our players. I firmly believe that competing in a relevant way in this space is our real future opportunity. By having Instant Scratch Cards available online, delivered in a manner that respects player's expectations for that medium, we can follow consumer preferences in the transition from paper to digital. And the best part is that these transactions could occur in a system that offers strong RG control services to our player.

Do you feel that there is still lots of room for game design in the traditional games to keep the consumer engaged and excited?

J.M. Landry: Without a doubt, yes! Being in a very competitive category from a vendor's standpoint, we as lotteries can benefit from a number of product innovations that are brought forward by these vendors, but also from each other's efforts. Through our ILC partnership with other Canadian lotteries, we host round-table meetings each

year where each lottery openly share. This forum acts as an amazing source of ideas and opportunities that each lottery brings back to their region to maximize consumer interest. We also look at our US and world-wide peers for best-in-class ideas such as the recent trend in Spotlight games. Overall, we like to believe that we share as many of our ideas as much as we borrow others, but the ultimate measure is how the ideas we choose to bring to market result in revenue growth.

How will implementation of new distributional channels impact sales? More bluntly, can some measure of sales growth be achieved with increased consumer access alone, or is creative game design a necessity?

J.M. Landry: Personally, I believe that future incremental growth will be driven by relevant access expansion, which is ultimately a combination of access and game design. While this may require capital investment to support new distribution tools, the cost of not competing and participating in this space far outweighs the opportunity cost of not doing it, or waiting to do it. By "relevant," I mean that some access expansion may be done most relevantly at retail, through different store types and different vending devices. Other expansion may be completely different, as is the case with what is offered in the Digital space.

As an example, I personally believe that the mobile phone will eventually become the player-preferred device through which Instant games are delivered in the future. When you think of it, the smart-phone offers many similar characteristics to the paper based scratch card: it's portable, it's tactile, the user experience is 'finger tip optimized', and the games can be played in a short duration. To me, it's not a matter of "if" smart-phones are the way to go, it's a matter of "how fast" can we be available in this space. And the trick, in this case, is that copying the scratch ticket experience perfectly on a smart-phone will not be enough. Proper execution in this area will require games to respect user experience elements offered by smart-phones, at minimum using sound and animation to deliver a relevant gaming experience.

It seems like some games end up with more clever promotional campaigns than others. Or does the game design itself drive the promotional campaign?

J.M. Landry: The Scratch'N Win category lends itself very well to fun & engaging promotional campaigns that can spark the imagination of our prospective players. So by that angle, I certainly believe that there's tons of opportunity to engage prospective players through insightful campaigns linked to fun tickets.

That being said, the current world of business requires that we act with fiscal responsibility over and above all. What this means is that we must constantly be on the prowl for advertising strategies that deliver business value while respecting our social responsibility values. The advertising landscape is an absolute mess and we have to make sense of it all. We have to be strategic in our selection of media and test-measure-repeat as much as we can. As an association of peer lotteries, this means we need to continue sharing success stories and best practices so that our sister lotteries can implement them in their regions to responsibly maximize their shareholder returns. Game design, advertising and promotion, distribution ... we need to be firing on all cylinders equally, innovating on all fronts, to keep the consumer engaged and the business growing. ◆

Play Station Kiosks

Lightweight

Sturdy

Environmentally Friendly; Recyclable

Durable Extruded Aluminum Frame

ADA Compliant

Versatile!
  • **Double or Single-Sided**
  • **Silver or Color Frames**
  • **Custom Storage Options**
  • **Add Shelves, Dimensional Signs, Headers, Snap Frames, Literature Holders, Pencil or Scratcher Cups, Trash Receptacles... Configure to Suit Your Needs!**

Signs • Logos • Graphics

www.admart.com
sales@admart.com

AdMart CUSTOM SIGNAGE | IDENTITY GROUP STAND OUT.

213 West Main Street • Danville, KY 40422 • 800-354-2102

Karina Firme
President and CEO
Hebara, the operator of the state lottery
of Rio de Janeiro – Loterj

PGRI Introduction: Brazil is the largest country in South America, and the fifth largest in the world, both by geographical area and by population with over 192 million people. There is one national lottery operated by CAIXA, which is also the second largest government-owned bank in Brazil. There are 27 separate states in Brazil, some of which operate lotteries within the borders of their state.

Rio de Janeiro is one of those states, and Hebara is the private commercial company that holds the exclusive license to operate the lottery for the state of Rio de Janeiro. By almost any measure, there is huge potential for the lottery market in Brazil to grow. Noticing the excellent results that Hebara is achieving, I reached out to Ms. Firme to help us understand the Brazilian market in general, and also to get some insight into how Hebara is transforming the Rio de Janeiro Lottery into the vital social institution that Lottery should be.

Paul Jason, Public Gaming: *Briefly describe the lottery and gaming market in Brazil.*

Karina Firme: The lottery in Brazil is considered by legislators and society as a whole to be a public service. Its purpose is to generate funding to support public interest causes. There is one lottery that is operated throughout the entire country, in all 27 states. This national lottery is run by a department of CAIXA ECONOMICA FEDERAL, the second largest government-owned bank in Brazil. CAIXA plays a crucial role in the financing of infra-structure, housing, and the management of public saving and social security. On the State level some states are also entitled to have their own lotteries, confined to the geographical limits of the state Approximately half of the states had an operating lottery in 1967, when a presidential decree determined that only existing state lotteries were allowed to remain active, no other state lottery could be created. Of these, only 5 are actually in operation (Rio de Janeiro, Minas Gerais, Ceará, Para and Paraíba). Recently there has been some movement to reinstate some of the state lotteries that are inactive.

Are the state lotteries typically run by the government or are most operated by a private corporation like Hebara in Rio de Janeiro?

K. Firme: The government of each state decides for itself which business model to implement. The government of São Paulo, for example, chose to run the lottery directly through a department of its own state bank, subcontracting only the printing of the tickets. Rio Grande do Sul has a more open model, with one-year licenses given to any operator which offers to run any specific lottery game within the state. In the case of Rio de Janeiro, the state has subcontracted the whole operation to a single operator (Hebara) with exclusive rights to run all existing lottery games in the state.

What do you see as some of the strengths and weaknesses of each lottery model?

K. Firme: There are different ways to measure lottery performance. All lotteries, whether operated by a government agency, a bank, or a private commercial company, must comply with all legal and regulatory constraints. There is typically an oversight group that ensures that the lottery is operated to the highest standards of integrity, security, operational effectiveness, and responsible gaming.

Performance of lotteries could also be measured by the financial and business standards applied to successful consumer products companies. Are the products evolving to keep up with changes in the marketplace? Are the games being refreshed and updated to appeal to the modern consumer? Is the marketing, advertising, and branding effectively communicating the fun and excitement of the games? The metrics used to assess performance in those areas would include revenue and sales per capita trend-lines, and net funds contributed to the lottery beneficiary, be it the government's general fund or some

SUPPLIER TO EUROPEAN SPORTS BETTING OPERATOR OF THE YEAR IN 2006, 2008 AND 2009

Kambi is the Japanese word for perfection, which tells you something about our ambitions. Our awards, such as Sportsbook of the Year at eGaming's annual EGR Awards, also tells you that we are well on our way. If you let us run your sportsbook, you'll get the most competitive one in the business as well as complete security. You get Kambi.

sales@kambi.com | www.kambi.com

KAMBI SPORTS SOLUTIONS

LONDON – STOCKHOLM – MANILA – MALTA

other worthy causes. It is in these categories that private commercial operators tend to be more innovative and entrepreneurial and produce better results. While it is not for me to say which is the "better" model, I do think the facts speak for themselves as to the performance of different management structures. Government agencies and large financial institutions tend to be more administrative, more conservative, less entrepreneurial, less innovative, and less likely to hold themselves accountable to a best practices approach towards optimizing performance in the marketplace. Commercial operators like Hebara are incented to invest in the business and so make more of an effort to innovate and connect with the players, just like all of the best consumer products companies do. And we are held accountable and expected to reach much more ambitious revenue targets than are the government and bank operated lotteries.

The difference is especially evident in the Instant Tickets category. Instants need to be managed like any other consumer goods product, with constantly refreshed games and marketing, and a dynamic approach to all strategic planning. The culture and management structures of government agencies are not ideally equipped to operate in that kind of environment. For example, an RFP to hire an advertising agency can take up to a year, and the purchase of goods or hiring of services, no matter how small, has to go through a cumbersome process of public tenders. Furthermore, the officers at the state lotteries usually change with each change in government every four years. The result is that Brazil has very few lottery experts in public office.

Another measure of performance is alignment of public policy and responsible gaming objectives with lottery operations. In Rio de Janeiro, Hebara manages and operates the games. But the state acts as regulator, decides where the proceeds of the lottery will go, and exercises active oversight over the whole operation. Hebara does not have free reign to determine how to accomplish the financial targets set by the state. So, commercial operators are expected to accomplish much more ambitious financial objectives and yet always stay consistent with the agendas and public policy objectives defined by the state.

You mentioned that Rio Grande do Sul has an open model, but the operator license term is only one year. That hardly seems like enough time for any initiative to yield an adequate ROI.

K. Firme: Exactly. Add to that the lack of exclusivity and the result is lack of interest from serious operators who know that you can't really do business that way and expect to produce results that are meaningful for anyone. Short term licenses without exclusivity rights have the problems of low investment levels and work as an adverse selection mechanism. Serious companies would be unwilling to engage in the necessary steps to forming a retailer network, training its sales force, and marketing a product, without the guarantee of at least a few years to get the return on this investment. Then there is the burden of sharing an "umbrella" of reputation and credibility (which is the state lottery brand) with other unknown competitors who may have different standards of integrity and risk. The short licenses result in lack of investment in the business and a standard of lottery operation that produces mediocre results.

A couple examples: São Paulo had its state lottery shut down in 2009 when the state bank which ran the lottery was was sold. In its final year of operation the São Paulo lottery sold R$ 22 million. Rio de Janeiro sales were R$ 189 million. Rio's sales were 8 times that of São Paulo even though the GDP of São Paulo is almost 4 times that of Rio! And Rio Grande do Sul has tried but not succeeded at developing a quality operator because, in my opinion, the one-year licenses are not attractive to serious companies and not conducive to the investment needed to create a retail network, do market research, design and test products, build brand equity, and do the things you need to do to develop the business.

The current contract term for Hebara to operate the Rio de Janeiro Lottery is five Years. When did Hebara enter the lottery business?

K. Firme: Instant tickets were introduced in the state of Rio de Janeiro in 1990. The State issued an RFP and a group of entrepreneurs founded Hebara which subsequently won the contract to operate instant tickets in Rio. Hebara's responsibilities include de-

signing the games, distributing the tickets, developing and executing the marketing strategy. The whole business operation of the lottery in Rio was, and still is, under the responsibility of a single company which in turn has to meet sales quotas for the state.

How does the state determine sales targets and are there consequences (as in the form of charge-backs) for falling short of the sales quotas? And are there bonuses for exceeding quotas?

K. Firme: Sales Quotas are based on the growth rate that the state determines is ambitious but achievable. There are penalties for not meeting the sales quotas, which, depending on the level of sales, can be as high as 30% of the quotas. There are no bonuses for exceeding the quotas, but since the operator gets a percentage of sales as a fee, the operator benefits from higher sales levels.

The evidence would seem to be clear that entrusting the operations to a bank is not the best solution, and letting one year contracts makes it impractical to invest in the business. Further, the success of Rio de Janeiro with Hebara illustrates what can be accomplished if the state removes those obstacles and allows the lottery to be run like an innovative and consumer-driven business. So why don't other states do the obvious thing and replicate the RFP process that resulted in the superior operation of the Rio de Janeiro lottery?

K. Firme: Any hiring of services by any of the state governments in Brazil has to be through a public tender which is a cumbersome process. However, I think the main thing is that states have paid very little attention to the lotteries and have been largely unaware of the potential that lottery represents, simply unaware of the levels of sales and funding that is being generated by lotteries in other parts of the world. Add to this the fact that gaming and gambling in Brazil are still very much stigmatized and considered to be a sensitive industry. If you combine low expected revenues with a politically costly endeavor, it is not difficult to understand why this industry is under developed and why most state governments have not paid too much attention to the lotteries or engaged in RFPs. But

Salim Adatia
Chief Executive Officer, GLI Interactive

PGRI Introduction: Established in 1993, and having established itself as one of the world's most experienced gaming test labs, Technical Systems Testing (TST) became a part of Gaming Laboratories International (GLI) in 2010. GLI has laboratories all across the globe and work closely with industry operators, software suppliers, gaming manufacturers and jurisdictional regulators to verify compliance with stringent regulatory requirements, supplier technical specifications, and world best-practice industry standards. Their clients include gaming regulators in jurisdictions all over the world, more than 450 in all. GLI employs a world-class team of professionals that test and certify equipment, including mathematicians, hardware and software engineers, compliance engineers, system and communication engineers, high-tech engineers and quality assurance specialists. GLI's dedication to service and preserving the integrity of the gaming industry has earned it a very special place in the industry.

The consumer is driving the current expansion of platforms, channels, and increasing variety of games, making this an incredibly exciting time of change and progress. This expansion has introduced increased levels of complexity that need to be managed properly. The CIO may be responsible for implementation. But there are some basic concepts, like layered levels of security, like Funds Transfer Blocking (FTB), like specific project management principles, that should be understood by everyone, including the CEO. Reputation and brand equity is everyone's business, including or even especially the CEO. The multi-channel approach that all successful operators are rushing to implement makes system security more complicated, and more important, than ever.

I turned to Salim Adatia to help me sort out these issues as communication and transaction-processing technologies change the face of the gaming and lottery industry.

Paul Jason, Public Gaming: *Where are the fault lines with respect to the integrity of operating systems?*

Salim Adatia: The first fault line occurs at the beginning of the process, when the operator first starts to think about any new initiative - be it a new game, new channel of distribution, new medium of communication, or whatever. This is a complicated business, involving game development, market development strategies, acquisition of hardware and communication technology, new transaction-processing technology, and so much more. The key is that security and preservation of system integrity needs to be a part of the dialogue from the very beginning. Unfortunately, it often-times is not. And then, when it is introduced to the process, it is assigned to the CIO who is left to figure it out in a vacuum. And even then, it sometimes does not get the resources it needs because security is a viewed as a cost center that does not contribute to the revenue generating mission of the business.

The first problem with this scenario is obvious. The technology that ensures system integrity may not be a revenue generator, but even a minor compromise of security can be devastating to the business, to the brand, to the reputation - business assets that can be priceless because they are so hard to rebuild. The second problem is not so obvious. It costs more to overlay the technology onto an existing infrastructure than it does to integrate new IT and security into the system from the beginning. And the results are so much better if system integrity is a priority from the very beginning. So, the first fault-line to close would be to have the CIO (or equivalent) be a part of the executive team from the very beginning of the process, and for the CEO to have this basic understanding of the how and why system integrity needs to be baked into the process from the beginning. Budgeting from the beginning for robust security and system integrity technology and processes absolutely saves money in the long-term, produces superior results in the form of a fully integrated technological infrastructure, and protects the most valuable assets that a gaming operator owns: their reputation and brand equity.

The relevance of this idea would seem to be compounded as we enter an era of multiple channels and the management of consumers' personal information.

S. Adatia: Of course. The more access points there are, the more important it is

Open the Door to a World of Possibilities

P G R I
LOTTERY
EXPO
2 0 1 2
CONFERENCE
OCTOBER 22-25
TRUMP HOTEL, MIAMI

LOTTERY EXPO: Unleashing the Power of Brand Lottery

Lottery Expo 2012 will be held at the **Trump Miami Beach Hotel, October 22 to 25**. Tuesday will have a focus on the **North American lottery industry**. Thursday will focus on the **Latin American lottery industry**. And Wednesday will bring us all together for a convention of industry leaders from all across the entire Western Hemisphere, the New World of Lottery. This ambitious agenda begins with a Reception on the evening of Monday October 22 at 5:00 pm; conference sessions will be held all day on Tuesday, Wednesday, and Thursday.

One of our purposes is to bring people together and PGRI receptions are a great place to start – So there will also be Receptions following the Tuesday and Wednesday conference days. Conference program with speakers will be posted as it becomes available. We promise to deliver a uniquely rewarding conference experience. Registration is free for all Lottery personnel. So please join us and your colleagues from all around the world for this special event.

Please go to **www.PublicGaming.org** for more details and registration information.

THANK YOU TO OUR PLATINUM SPONSORS

Camelot Global Services · GTECH Architects of Gaming · IGT · intralot · JUMBO LOTTERIES THE RIGHT COMBINATION · linq3 · NeoGames · Pollard Banknote · SG

to have higher levels of security to avoid compromise of the system. Think about iGaming, especially the social games, and distributed networks of electronic games. Then think about how player information will soon be, and in some cases already is, migrating across these different platforms. The complexity and number of access points not only increases, it explodes exponentially. The importance of budgeting for effective security in the initial stages of building the system becomes critical. A failure to do this ends up costing more in the long-term and a lapse in security can negate everything the business has invested in building.

Project management is a challenge because input from the different corporate divisions is needed but there really needs to be one project manager who has the ear of the CEO and the authority to coordinate the input from marketing, operations, finance, sales, customers service, and all others with IT.

What exactly is meant by "system integrity"?

S. Adatia: Security can be broken into three different spaces. First, transaction processing must be error-free. Second, personal information must be protected. And third, fraud must be prevented. Failure in any one of those areas would be hugely damaging to any business. Proper investment in, and management of, a robust system to preserve security on those three fronts should be considered mission-critical.

The registration process required to open an internet account of any kind involves the storage of personal player information. That is true for internet gaming of any kind, even play-for-free. The minimum information is name, e-mail address, and date of birth. Electronic financial transactions include extremely sensitive banking information. All of this personal information must be safeguarded. Regardless of whether any money is being transferred, protecting the privacy of the consumer is mission-critical. And then there are external threats. The threats can take the form of malicious attacks without discernible objectives, or people that are trying to thwart or manipulate the games for their own personal gain, and people attempting to just get the personal player information to leverage for their own personal gain.

There are also internal threats. Fraud prevention needs to focus not just on external threats of cheating, malicious hacking, money-laundering, and theft of personal player data. Protection from compromises that come from within the organization are just as important, and requires even higher levels of security because of the increased number of access points that exist from within the organization.

Two benchmarks that provide assurance that an effective security system has been implemented the standards and certifications provided by ISO 27001 and also World Lottery Association (WLA) Security Control Standards.

France is having trouble keeping out illegal internet gambling operators. Why is that? We know that the technology and capability is there to control access, and identify the criminals and enforce the laws on illegal operators. Fund transfer blocking (FTB) has proven to work effectively as has UIGEA-type mechanisms that enlist merchant banks in the effort to stop illegal iGaming that involves criminal financial transactions.

S. Adatia: The technology to safeguard information is proven to be reliable. Online banking and internet gaming itself has been operating for years without incidence of technical failures. Cases of fraud that the industry has recently seen, were cases of internal criminality, not compromise by external threats and technical failure.

France is one of the jurisdictions where they really depend upon the internet service provider, or ISP, to block unauthorized URL. In order to be a permissible gaming site within France, the operator must have a ".fr" URL extension. That still leaves an enforcement challenge for the ISP's, which are not set up to be an enforcement or policing agent. The ISP's are really looking for some guidance on which sites to black-list or prohibit.

Why is that a challenge? This is the list of legal operators and websites. If they are not on this list of legal sites, you block them.

S. Adatia: It is not necessarily a challenge to make the list and block the sites not on the list. The challenge is to keep up with it. It is very easy for illegal operators to have a system of putting up new sites whenever the old one is blocked. You are correct

in saying that it should not be that hard. It's just that someone needs to allocate the resources and manpower to do it.

Maybe there could be a form of mutual recognition that is working in reverse of the way the remote operators would want it to work. Instead of recognizing the right of operators to operate everywhere if they are licensed in just one EU jurisdiction, each country could recognize the rights of neighboring countries to have laws and enforce those laws. Wouldn't Italy or Spain, or even Malta or Gibraltar, extradite convicted criminal back to the country where the crime was committed? Why not turn over the criminals who operate illegal gambling establishments in the same way?

S. Adatia: There's nothing really to stop that kind of collaboration to fight illegal gambling. There is evidence that regulators are working towards some form of that. Regulators from all the different jurisdictions are meeting with each other to address these and many other issues. And we sponsor Regulator Roundtables to provide information and the tools to know what their options and technical capabilities are. The Roundtables also serve as a forum in which they explore issues like this work to solve cross-border problems. And our job at GLI is to take direction from the regulators and help them to understand the technology and means of enforcement. We do not get involved with the political and legal dimensions of these issues.

U.S. state lotteries could benefit by collaborating on internet gaming, much like they do on multi-state lottery games. What kinds of security and systems integrity issues will they need to think about?

S. Adatia: Implementing a multi-state internet gaming platform will require a more complex IT infrastructure than selling lottery tickets. But many of the same issues need to be addressed. Simple questions like, where will the central servers reside and who will manage them? Who's going to monitor them? If you're going to engage a third party to monitor it, who's going to be in charge of that and who will have final decision making authority? If some portions of IT requirements are outsourced, how will you decide exactly what will be outsourced? And how will you en-

Save the Date!

World Lottery Summit
September 9 - 12, 2012

Preparations are now in full swing for this major event.

In a first for the lottery industry, the WLA and NASPL will join forces for the World Lottery Summit 2012 in Montréal, Canada. Through this collaboration, we aim to deliver a lottery event of unparalleled depth and quality to the members and contributors of both associations.

The WLA and NASPL, as well as Loto-Québec, our host for this event, look forward to greeting you in **Montréal, Canada, September 9 – 12, 2012** for the World Lottery Summit.

www.wls2012.com

A World of Opportunities

À La Montréal

World Lottery Summit 2012

WORLD LOTTERY ASSOCIATIO
WLA

NASPL

LOTO QUÉBEC

Kristian Nylén

Chief Executive Officer, Kambi Sports Solutions

PGRI Introduction: Sports evoke some of the greatest moments of body and spirit. From the ancient Greek Olympics to Friday night's high school football matchup, keen opponents push their bodies and skills beyond the limit. The personal triumphs, the clash of larger-than-life personalities, the local and even national rivalries, all become part of the change of seasons of everyday people, and mark milestones in the lives of both athlete and spectator. Internet and mobile technology take us even closer to the action and are revolutionizing sports-based gaming, as they have every other aspect of our lives. And Kambi Sports Solutions is in the vanguard.

Kambi is a B2B supplier of quality sports betting products on an in-house developed proprietary software platform. The Kambi mission is to be the preferred independent partner to larger private operators and government lotteries around the world. Kambi employs 250 people in offices in London, Stockholm, Malta and Manila. Its clients include Unibet, Paf, Expekt, Nordicbet, Interwetten, Asian-Logic, and they have just signed with Grupo Acrismatic, one of Spain's leading casino groups, to deliver a complete sports betting service, including odds compilation, risk management, customer profiling and a technical platform. Kambi has exclusive responsibility to provide all of these sports betting solutions on all Acrismatic's distribution channels: online, mobile, and retail.

Kristian Nylén started in the gaming industry with Unibet in 2000 as an odds compiler. By 2003 he had become head of Unibet's Sportsbook. In late 2009 he launched Kambi (which means perfection in Japanese) as a special project for Unibet, and he became CEO when Kambi was set up to operate as an independent company in 2010. EGaming Review named Unibet European Sportsbetting Operator of the Year in 2006, 2008 and 2009. PGRI talked about the revolution in sports-betting with Mr. Nylén at the ICE Totally Gaming Show in London.

Paul Jason, Public Gaming: *Your customers are reporting some astonishing sales increases. Paf is an established operator that switched from their in-house Sportsbook over to Kambi's Sportsbook in June of last year. The first full quarter turnover YoY increased 42%, the second 67%, and Q1 of 2012 increased by 121%. Net profit almost doubled. Unibet gross winnings are up by 58%.*

Kristian Nylén: Managing the Sportsbook for optimal results is all about creating a great user experience and optimizing risk. The positive player experience drives revenues, and effective risk management enables operators to achieve good margins with competetive paybacks to the player at the same time. And now we just introduced a new mobile application to our customers This will dramatically increases the accessibility for the consumer and so will further drive revenues.

What are some technological and regulatory changes that are contributing to the evolution of the sports-betting industry?

K. Nylén: When I started in the industry ten years ago, the internet was just evolving and it has since had a profound impact on the sports betting market. Before that, in many countries you could bet on the actual result in only a limited number of matches. The internet enables consumers from hundreds of different markets to bet on the same event, and also enables in-play betting. The latest trend is mobile, which is overtaking more and more of this market. We are moving from the early-adopter stage and into the mass market for smart-phones. Mobile betting will comprise more than half of all

online sports-bets in just a few years.

So technology has changed the essence of sports-betting. Before the internet, the player bet solely on the outcome. Now, the process of betting becomes an interactive game itself. With in-play betting the player is directly engaged and can bet multiple times during the game itself, right?

K. Nylén: Absolutely. When I started betting some 30 years ago, it was strictly on pool betting. You handed in a coupon consisting of 13 pre-selected football matches on a Thursday at the latest, and then matches were on Saturday. Now you can bet after a match has started, and continue to place bets as your assessment of the odds changes. It has had a massive effect on consumer engagement. It is way more fun for the player, creating a truly interactive experience in which the player is directly involved in the game. It is taking the entertainment value of sports-betting to a completely new level.

Live in-play betting, as opposed to conventional betting, turns the betting experience into a real game itself, a head to head competition between the player and the trader (odds compiler). You have more equal conditions, the pace is very fast so there is no time for second opinions. The house retains an advantage of the margin. But the house needs to present updated odds for all markets several times per minute so the player has the advantage of being able to bide their time and wait for the right opportunity to strike.

Kambi comes from a culture of "By players – for Players" and it has always been our aim to give the end user the best possible user experience in order to be able to compete on more equal terms. Relevant offering presented in an intuitive way, supporting data and stats, very fast odds updates pushed out to the client etc. - This is what will generate the most satisfied customers and in the end also the highest revenues for the operator.

And it has resulted in an explosion in the volume of sports-betting, especially over the last year or two, right?

K. Nylén: I would say that the new era started around 2000, and the internet was the change-agent. In-play betting started growing around 2006. What you

refer to is the recent exponential growth of sports-betting precipitated by in-play betting, both in terms of the number of events offered by companies, but also in gross winnings for operators.

Is there statistical data showing the percentage of bets that are the old style, Pre-match bet, versus in-play betting?

K. Nylén: In-play betting now constitutes around 60-70% of total turnover generated on sports betting. That has increased from 2007, when in-play betting was less than 20% of the market to over 60% today. This incredible growth rate will probably continue for couple of more years before it stabilizes.

Is the explosion in the market for in-play betting a result of technological change, i.e. the internet and smart-phones and such, or a regulatory change?

K. Nylén: It is all about technological change. Regulatory change does matter, but it is technology that is driving the changes, making new game-styles available. Companies like Kambi have also developed the kind of secure platforms to deliver new options, like in-play betting. We also developed the ability to do in-play betting on matches that are not even televised. In the beginning you could only bet on matches that were being televised. In effect, we are increasing the amount of game content, simply by making it possible to bet on far more matches, and even follow the play action live streamed in your computer so you can bet during the match.

Why is Kambi separating from Unibet?

K. Nylén: Unibet is a B2C operator. Kambi is a B2B partner. Kambi has no direct connection to the consumer. Like Unibet, our customers have the direct connection to the consumers, the players. As a B2B partner, we want our customers to be confident in our commitment to supporting their mission, and to divest ourselves of any interest in establishing a B2C approach ourselves. To that end, Unibet is divesting its interest in Kambi so that Kambi will be an independent B2B supplier. This really frees us up to focus on what we do best and develop solutions for all operators in the sports-betting market.

Consumer trends seem to be evolving

more rapidly in the sports-betting sector than other gaming sectors. How do your sports betting solutions position the operator to stay ahead and take full advantage of these fast-moving market changes?

K. Nylén: One very important change in the last couple years has been in the regulatory frameworks of many European markets. Kambi has made it our personal mission to fully understand how to comply with the regulations and public policies of all jurisdictions. That is important because the operator needs to know that their commercial partner knows how to support an approach that is compliant with all regulations. Kambi has developed the in-house skill-sets and the technology platforms that are flexible to support an approach that is compliant with regulations all over the world.

That is quite the challenge. In fact, the commercial operators lobby intensively for the EU Commission to force the members states to harmonize their regulatory frameworks. But, the member states have different public policy agendas and do not want to compromise the interests of their citizens by imposing a 'one-size-fits-all' regulatory framework. The regulated markets appreciate the efforts of commercial partners like Kambi who want to enable them to preserve their independence and rights to determine their own regulatory and taxation frameworks.

K. Nylén: It is a challenge and Kambi is dedicated to helping our customers, in all jurisdictions, to satisfy the needs of their own unique markets and preserve their own regulatory frameworks. We have a big B2B business in both Italy and Denmark, among many others, which have quite different regulatory frameworks. We have invested heavily in building that capability to adapt to the different needs of different jurisdictions. You're right, it's not easy!

Italy and Denmark are sports-betting markets that are among the most progressive and evolved regulatory regimes, correct?

K. Nylén: Absolutely, especially Denmark. Their government have an enlightened approach towards regulation and taxation. Public policy considerations are, of course, of preeminent concern. But a

CLOUD COMPUTING…NOT YET FULLY BAKED

PROCEED WITH CAUTION. UNDERSTAND THE TRADE-OFFS. SEPARATE FACT FROM FICTION.

"Cloud IaaS is not magical. It does not convey automatic application scalability or availability; applications must be designed to scale horizontally and to be resilient to failure and performance fluctuations. The availability of infrastructure on demand does not eliminate the need to capacity-plan for budgeting purposes."

- Gartner, Inc. in "What Managers Need to Know About Amazon EC2", Lydia Leong, 15 March 2012.

"However, this race for mindshare has obscured cloud computing facts. Many admit to the haze surrounding cloud computing."

- HP Business White Paper: "Five Myths of Cloud Computing," May 2011.

Having direct experience in delivering the first U.S. Internet gaming solution via a cloud-type environment and being equipped with GTECH's SilverLining Cloud solution, the Company's extensive business case analysis has produced a cloud strategy that carefully balances risks and rewards. In the following article, GTECH's Chief Innovation Officer, Don Stanford, highlights some of the major considerations associated with a lottery migration to cloud computing.

Don Stanford, recently named GTECH's Chief Innovation Officer, began working for GTECH's founders in 1979 as a Manager of Software Development. With more than 30 years of experience in the lottery industry, Don guided the growth of GTECH's technology organization from a software staff of four to a worldwide deployment of more than 1,000 technology professionals. Under Don's leadership, GTECH advanced in terms of both transaction processing and wireless communications, which enabled the Company to lead the lottery industry in worldwide growth and the installation of systems on six continents. He has held every technical leadership position, including Director of Software and Systems, Vice President of Advanced Development, and Chief Technology Officer. Stanford also served on the GTECH Board from 1986 until 1989 and helped GTECH achieve 15 unique patents.

Don earned a B.A. in international relations and an M.S. in computer science/applied mathematics from Brown University. He serves on several boards, including Times Squared Academy Charter School, Spectra Systems, and the Business Innovation Factory, and is a member of the Rhode Island Science and Technology Advisory Council. In 2001, Don was appointed Adjunct Professor of Computer Science at Brown University and has been teaching undergraduate courses since 2002. He is also an Adjunct in the Graduate School of Engineering and an instructor for the Program in Innovation, Management, and Entrepreneurship (PRIME).

Don's wealth of experience within the technology industry and consistent passion for innovation will play a key role in his new role as Chief Innovation Officer.

Over the last two years, "Cloud Computing" has dominated the marketing and messaging in Information Technology (IT). At its core, it is the implementation of a simple concept:

Take advantage of advances in computing, software, and operations to deliver more value for less investment and ongoing operating cost savings by sharing and on-demand provisioning of assets that no longer need to be dedicated to a single purpose or application.

Those of us who have been involved in computing since the 1960s will recognize this as the 21st century manifestation of "timesharing," where many users shared the limited resources available on the large expensive mainframes of the time, thereby making computing more affordable for all users.

The actual definition of Cloud Computing is still evolving. New terminologies to describe Cloud's various facets and potential seem to spring up almost weekly, many of which are invented by industry giants as each one vies for industry and customer mindshare.

Public Cloud infrastructures hold great appeal for many internal IT applications as well as e-commerce. If you were setting up a new entrepreneurial e-business today, you would not have to look any further than Amazon or a host of other providers to supply you with everything you need to launch your enterprise on the Internet in a matter of days by sharing services that they have waiting to host and power your business or enterprise. This allows customers to use their working capital for marketing and business development instead of provisioning hardware and licensed software. The benefits of Cloud services for these computing and Web-based applications are obvious as witnessed by the legions of customers using Amazon EC2, Google Apps, and Salesforce.com cloud-based services.

BEWARE OF THE HYPE

If, however, your business cannot tolerate interruptions or disruptions that affect system availability or data integrity under any circumstances, the ability of Cloud to deliver at that service level becomes less clear and ultimately requires a more in depth analysis of the risk/reward equation. Behind all of the potential and hype that floods the IT media about Cloud, there are still fundamental concerns around the ability to manage risk and system integrity in order to preserve mission-critical applications. For this reason, you will not see applications that involve public safety, essential services (such as power grid and air traffic control), or large liabilities hosted on Public Clouds anytime soon.

The implementation of Cloud in lottery services requires a careful analysis with a conservative eye toward managing and mitigating the obvious risks. It's very tempting to squeeze a lot of services and infrastructure into the smallest possible package and cost structure, but it carries the risk of a single failure or malicious attack bringing the entire enterprise down at great financial and reputational harm. Considering that billions of lottery transactions are processed worldwide each year, with commensurate jackpots in the hundreds of millions of dollars, it would be foolish in the extreme to entrust any of the core computing assets to be exposed to additional risks that would be imposed by operating in a Public Cloud.

"Cloud computing has changed the nature of collaboration, content-sharing, document storage, and project management to enable more efficient, faster-acting, and cost-effective enterprises…"

That is exactly how Application Service Providers (ASPs) were described a decade ago.

MAINTAINING CUSTOMER TRUST

As we explore ways to employ best practices for Cloud infrastructures, we must be realistic about those cases where the benefits are justifiable and conversely those that are not given the importance that we attach to our public gaming businesses. Recent discussions with several of the leading Cloud service providers indicate that they have limited ability to provide guaranteed service levels that are consistent with the expectations of the lottery industry, and it would be a step backward to lower the performance and security bar in order to justify the use of Cloud.

It is critical to understand that there are many different types of Cloud solutions. The right solution strikes a delicate balance between increased efficiencies and risks to data integrity, as sensitive IP and customer information are exposed outside the control of private operations. This is a significant consideration for European lotteries as EU regulations are lifting the constraints for in-country data centers, thereby increasing the likelihood that more lotteries in Europe will consider adopting cloud strategies.

RESPONSIBLE PROGRESSION

Lotteries around the world are being presented with sales and marketing messaging from cloud solution providers that offer promises of plug and play lottery services: immediate game catalogues, rapid system deployment, and full solution management.

Current GTECH technology can have a lottery system up and running within 90 days with a fully functioning game library. In fact, we just launched Internet wagering in Illinois in four months. So the question is: Why cloud? What does cloud technology deliver that is not an option in current lottery solutions?

For businesses that are interconnected and share identical product processing procedures, public cloud solutions have the potential to reduce costs and increase efficiencies, without a doubt. But the Texas Lottery is not the Française des Jeux Lottery. The Massachusetts Lottery is not the Dansk Spiel

Lottery. Customization is the cornerstone of success for each lottery, as player game preferences and regulator standards are unique to each jurisdiction. One size simply does not fit all. There is a high cost connected to relinquishing control of system design.

As shown in the graphic below, in a multi-tenant environment, the more you outsource the more potential exposure you face and the less direct operational control you have over the environment as shared services increase. What this really means is that any malicious intent directed at a co-share customer affects the aggregate data of all share customers.

As Cloud services increase (depicted by yellow coloring)

threats to critical data exponentially increase.

- Infrastructure as a Service (IaaS) is a cloud service model offering fundamental computing resources as a service.

- Platform as a Service (PaaS) is a cloud service model offering a software platform solution stack as a service.

- Software as a Service (SaaS) is a cloud service model offering software applications as a service.

Our industry will require a special application of Cloud when and where it meets our business requirements without compromising the service levels to which we have become accustomed. This will entail the development and deployment of Private Clouds (as opposed to Public Clouds) that specifically address our concerns and needs. Certain applications suggest themselves by virtue of their lower-risk profile. Development and test environments have long benefited from various forms of virtualization and resource sharing and are prime candidates for Cloud implementations.

Likewise, services that supplement the core transaction applications but have no direct impact on sales or transaction security can be considered. The ability for U.S. customers to now access Internet and mobile channels, as is currently the case internationally, will also result in certain gateway services implemented in shared Private Clouds.

TRADITIONAL ENVIRONMENT	INFRASTRUCTURE AS A SERVICE (IAAS)	PLATFORM AS A SERVICE (PAAS)	SOFTWARE AS A SERVICE (SAAS)
Data	Data	Data	Data
Applications	Applications	Applications	Applications
Platform	Platform	Platform	Platform
Operating System	Operating System	Operating System	Operating System
Virtualization	Virtualization	Virtualization	Virtualization
Systems	Systems	Systems	Systems
Storage	Storage	Storage	Storage
Network	Network	Network	Network

PRIVATE CLOUD CONSIDERATIONS

Virtualization is one of the significant mile-markers on the cloud technology roadway and in fact, virtualized systems have been supporting lottery systems for years. Recognition of the advantages of virtualization and shared services was the impetus for creating the solutions managed by GTECH's Data Center of the Americas, which services both domestic and international customers. Our current customer Cloud solution, SilverLining, is GTECH's Enterprise private cloud initiative that marries the traditional lottery requirements of reliability and security with new interactive channel processing while respecting the essential need for customization in lottery system design. Our latest addition to our product portfolio, GTECH's Player Direct service, is based on shared infrastructure and software components as is our newly deployed Universal Mobile/Internet Gateway.

Many of our development and test environments have used Private Cloud concepts for years since private Cloud based solutions allow for quicker scalability and quicker time to market as hardware, software, environmental, and facility assets are shared.

The ability to respond to new technologies and alternate business models is essential in order to survive in our IT-demanding world. That is one reason why lottery transaction processing systems are now hosted on dedicated but shared and distributed servers. This is, however, distinctly different from sharing and outsourcing on publicly hosted systems, which are the greater part of Cloud methodology today as exemplified by Public Clouds.

When considering Cloud solutions for our public lottery services, the following questions must be answered:

- How much control are we willing to give up?

- What performance, security, or availability tradeoffs come into play?

- How do we guarantee the required Service Level Agreements?

- Are the benefits worth the additional risks?

For many enterprises, the answers to these questions justify the adoption of Public Cloud implementations, including many that provide services to the commercial gaming interests. The level of scrutiny and regulation for those providers does not even approach that which we consider the norm in the public, government-sponsored gaming environment. As a result, lotteries deserve a much more careful adoption of Cloud technologies, performed in a manner that preserves the expectations for operating excellence to which we are all held.

This migration and potential adoption of new paradigms and standardized technologies in our industry has considerable precedence in the past. In the early 1980s, all lottery networks were implemented with private leased lines provided by telephone carriers at great expense. In many cases, these services were unaffordable or not available depending upon the location of the retailers. GTECH pioneered the use of private data radios in 1984 as a solution to this problem for customers around the world and eventually built and delivered the first VSAT network for lotteries in 1992.

The adoption of the Internet Protocol at the end of the 1990s enabled the use of an even wider set of solutions, including 3G and 4G wireless. At every step along this evolution, however, it was incumbent on GTECH to ensure that the solutions maintained the standards for availability, performance, and security that are central to our corporate DNA. The adoption of Cloud-based methodologies will require the same attention to those imperatives. ◆

Pennsylvania Lottery Gains Partners Through Flexibility

The Pennsylvania Lottery, like lotteries nationwide, has worked to increase points of distribution as a way to keep sales up during the recent recession. One of the greatest challenges in recruiting new retailers is helping them understand how Lottery can fit into their existing business models without creating logistical problems for stores.

The Pennsylvania Lottery met this challenge by designing customized solutions to make Lottery sales a practical and profitable business appeal for large chain retailers, namely Wawa and Rite Aid. To achieve this, the Lottery introduced new technologies allowing for customized accounting procedures and offered extra customer service to both retail chains. As a result of this innovative work, partnerships with these two large chains have generated a combined $72.3 million in new Lottery sales in under two years.

Listening first

Rather than starting its meetings with Wawa and Rite Aid executives with a strong sales

Wawa employee with PCT: Wawa, a large Pennsylvania-based convenience store chain, provided training for their associates on how to handle Lottery machines in an effort to make Lottery sales an integral part of day-to-day operations.

pitch, the Pennsylvania Lottery and its technology and operational services vendor, Scientific Games, came to the table with open ears.

"We walked into the first meetings with one objective: to listen to their concerns," said Pennsylvania Lottery Executive Director Todd Rucci.

Executives from both Wawa and Rite Aid were looking for a way to fit Lottery sales into their mission to provide fast, efficient service and user-friendly products. The retailers challenged the Pennsylvania Lottery to find a way to add Lottery sales that would meet those goals.

The chains' other major business concern involved accounting procedures and reporting capabilities. Both retailers wanted greater ease and flexibility in tracking inventory and financial reports for Lottery sales to make it easier to integrate Lottery into their existing business models.

A solution in new technology

To address those concerns, the Lottery and Scientific Games worked together to design sales terminal reports and software modifications to Scientific Games' PlayCentral Terminal® (PCT). The PCT is a self-service unit that sells instant and terminal-based games, validates tickets and allows players to apply winnings to Lottery purchases or print a voucher for cash redemption at a Lottery terminal.

The PCT allows Wawa and Rite Aid locations to sell Lottery tickets without interrupting counter sales. The only transaction occurring at the counter is the cashing of vouchers printed from the terminals.

"These custom-designed PCT terminals allow Wawa and Rite Aid to offer all of Lottery's products and the service our players expect, all while maintaining the efficiency levels critical to these chains' business models," said Rucci.

This customized solution pleased Wawa and Rite Aid executives and cleared the way to introduce Lottery sales at both stores.

"We were thrilled to be able to have a technology solution

that allowed us to bring Lottery into our stores," said Lisa Wollan, Head of Consumer Insights and Brand Strategy for Wawa.

The Lottery also worked to identify unique cash management, reporting and audit capabilities that would seamlessly incorporate Lottery accounting processes into Wawa's and Rite Aid's existing systems.

"The PCT and online reporting tools lessen paperwork for tracking inventory and financial data, and these solutions allow our accounting department to easily download settlement statements for processing each week," said Tony Sadler, Rite Aid's Vice President of Store Operations.

Expansion begins

Rite Aid began with a Lottery sales pilot in seven stores, which ran from February through June 2010. Another 143 Rite Aid locations added Lottery sales to operations between July and September 2010, and 120 Rite Aid stores began selling Lottery tickets in 2011.

"The Lottery team helped guide us through installation, training and go-live processes, and their staff has provided continuous support to our store teams since," Sadler said.

Wawa's Lottery pilot began with one store, testing sales during May 2010. An additional 21 Wawa stores adopted sales throughout that summer, and full Lottery roll-out of the remaining Pennsylvania Wawa locations took place between November 2010 and April

2011. Currently, all 215 Wawa locations in Pennsylvania sell Lottery products and new stores are licensed as they open.

As new Rite Aid and Wawa locations were added to the Lottery network, the Lottery conducted an ambassador program at each new store, offering several days of on-site assistance to answer employee questions and introduce customers to the new terminals.

Scientific Games also developed customized training and customer service options based upon the needs of individual stores and each chain as a whole.

Lasting partnerships

Two strong and mutually beneficial retail partnerships resulted from the flexibility and commitment to service Lottery demonstrated in convincing Wawa and Rite Aid to join the Lottery network.

"Wawa's full cooperation as a partner is what allowed them to be so successful so quickly," Rucci said. "They provided great training for their associates, showed enthusiasm for the product and worked to make Lottery an integral part of daily operations."

"We are very pleased with the partnership," Wollan said. "It has really benefited our customers. Adding Lottery sales allowed us to be a one-stop shop and more fully meet their needs."

With 279 locations currently selling Lottery products and more scheduled to be implemented before the

PCT in Rite Aid: By providing flexible solutions and continuous customer support, the Pennsylvania Lottery formed a strong partnership with Rite Aid. The Pennsylvania-based pharmacy chain is now the Pennsylvania Lottery's largest retail partner in terms of the number of locations.

end of Lottery's fiscal year, Rite Aid is Lottery's largest corporate partner in terms of the number of locations.

"We look forward to our continued partnership and growth of our lottery program, which will help both Rite Aid and the Pennsylvania Lottery reach their goals," Sadler said.

The Pennsylvania Lottery hopes to duplicate this success story as it continues to build its retailer network.

"We're thrilled with the results we have seen from Rite Aid and Wawa, and we're excited to take our business-focused, flexible approach to retail recruitment to a new round of potential corporate partners," Rucci said. "It's all about responsibly growing their businesses, and growing our business for the benefit of older Pennsylvanians." ◆

Lotteries and the Internet…

Essential Evolution, Not Optional Extra

Lorien Pilling, Research Director,
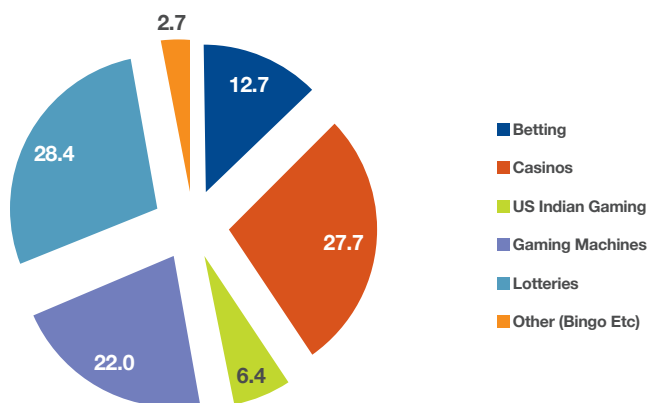Global Betting and Gaming Consultants

This article is based on a speech given at the Smart-Tech conference in March 2012

Offering lottery sales via the Internet and mobile devices is an essential evolution of the lottery game, not an optional extra.

The majority of state lotteries are not exploiting the opportunities afforded by Internet and mobile technologies. There might be some reasons for this – regulatory or executive reticence – but they are becoming less and less valid in the current economic age and with the technology that is available.

Globally, lotteries account for 28% of all gambling revenues. This market share makes lotteries the leading gambling category in 2011.

But in the interactive sector – Internet and mobile – state lotteries account for less than 10% of revenues.

These two figures show clearly that interactive channels are not being used to their full extent. Lotteries should be the leading category in the interactive market too.

Where is meaningful growth going to come from in mature lottery markets at a time when:

• The gambling market is becoming increasingly competitive – both in the US and worldwide gambling expansion is taking place, all competing for players' discretionary spending

• Lotteries are being called upon for ever more money to fund public works and good causes as governments look for every spare dollar, euro or pound

• Total Lottery sales in the US have not grown by more than 2% per year since 2007

• Offering new sales channels like Internet and mobile sales can be a catalyst for growth

2011 Global Gambling Revenues by Category (%)

Betting 12.7
Casinos 27.7
US Indian Gaming 6.4
Gaming Machines 22.0
Lotteries 28.4
Other (Bingo Etc) 2.7

Source: GBGC Global Gambling Report

US Lottery Sales (US $ million) 2004-2010
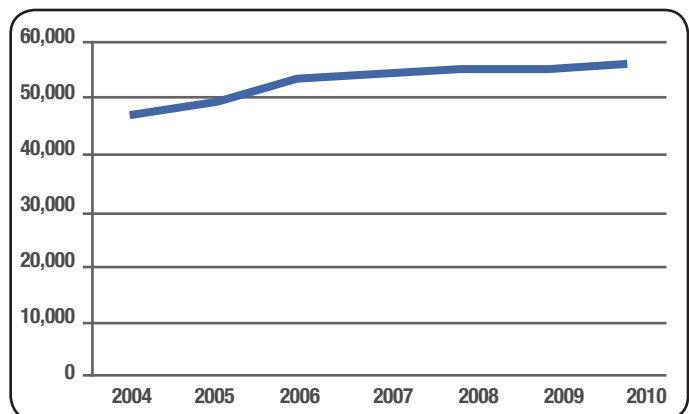
Source: GBGC Global Gambling Report

UK Lottery Player Profile by Age
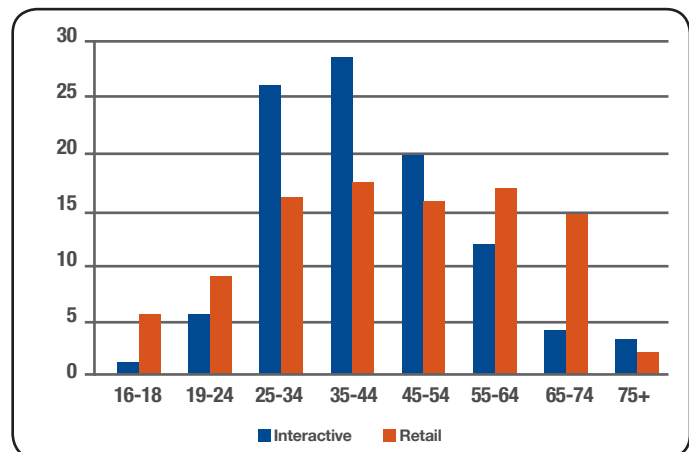
Source: Camelot

Internet and mobile sales channels enable lotteries to attract new customers and more customers in demographic segments where retail lottery participation is lower. The UK lottery operator Camelot has found that interactive participation is particularly strong in the 25 – 44 age group – usually a group with high disposable income too. This 25 – 44 age group accounted for 54% of interactive lottery players and 35% of retail players.

Offering Internet and mobile lottery sales fits in with how more and more customers are doing their shopping and making purchases:

- In the US total e-commerce sales reached US$ 161 billion in 2011, up 13% on 2010 (Source: Comscore)

- The iPhone and iPad accounted for 10.2% of all online retail traffic on Black Friday, last Thanksgiving (Source: IBM Coremetrics)

- Facebook has more than 350 million active users accessing their profiles through a mobile device (Source: Facebook)

- 4 out of 5 US smartphone users use their phone to help with shopping; 54% use it to locate a retailer (Source: Google/Ipsos)

- Ebay calls it "couch commerce" – using tablets and mobile phones to shop from the comfort of the couch

- Ebay: in 2011 people purchased US$ 5 billion worth of goods via mobile devices on Ebay; forecasts US$ 8 billion in 2012 (Source: eBay)

The key question to ask is "Who is your boss?"

A lottery might answer it is the government that awards their licence, or the public causes for which they are raising funds. The answer is actually the customer who buys your tickets and plays your games – you have to give them the games they want in a format they want.

Offering lottery sales by Interactive channels:

- Opens up a new source of players

- Fits in with changing consumer behaviour

- Stimulates greater spending

- Gives greater insight into players and their behaviour

- Allows more focused and tailored promotional activity to registered players by email and text message

- Increases a lottery's margin because there is no retail commission to pay, which benefits the causes for which the lottery raises funds

- The use of new technology is an essential evolution in the lottery industry, not an optional extra

General retailers – be they book shops, computer stores, clothing outlets – have all had to adapt to changing consumer behaviour and preferences. Lotteries should not be exempt from this evolution.

MegaMillions Mania Highlights Need for E-Lotteries

The most incredible aspect of the US MegaMillions lottery jackpot was not the fact it had not been won since 24 January 2012, nor the record US$ 640 million jackpot but rather that US lottery players still have to stand in queues round the block to buy their tickets.

For an economy that is home to Silicon Valley and Apple Inc, which has revolutionised mobile commerce with its iPhone, the sight of people waiting in line for their 1 in 176 million chance of winning the jackpot was incongruous. *(See images of enthusiastic Mega Millions players at http://www.bbc.co.uk/news/world-us-canada-17568194.)*

After the Department of Justice's legal opinion (regarding lotteries and the Wire Act) of December 2011, the Illinois lottery went live with its Internet tickets sales on 25 March 2012. It has undoubtedly benefitted from the launch coinciding with the mania surrounding the MegaMillions jackpot. By Thursday 29 March 2012 Illinois online lottery sales reportedly amounted to US$ 425,000.

What would have been ideal for the development of Internet lotteries in the US would have been for a winning ticket to have been purchased over the Internet. A winning jackpot ticket was purchased in Illinois but in a Moto-Mart. If people had seen you can buy a life-changing ticket from the comfort of your couch they wouldn't accept having to stand in line again.

Global Betting and Gaming Consultants (GBGC) recently attended the Smart Tech lottery conference in New York. It appears that too many of the lotteries are adopting a "wait and see" attitude to Internet development. If state lotteries are to take their share of the developing e-gaming market in the US, they need to adopt a more commercial attitude towards new sales channels.

GBGC Director Lorien Pilling commented, "You can bet your last dollar that if the Vegas casino companies get a chance to run online gaming in the US they will not "wait and see". They will take every opportunity afforded to them by the legislation."

General retailers – be they book shops, computer stores, clothing outlets – have all had to adapt to changing consumer behaviour and preferences. Lotteries should not be exempt from this evolution.

As for US lottery players, help influence the future of lotteries by joining the Lottery Players' Alliance. ◆

http://lotteryplayeresalliance.com

To contact Global Betting and Gaming Consultants:

Warwick Bartlett

CEO, GBGC

warwick@gbgc.com

Lorien Pilling

Research Director

lorien@gbgc.com

Tel: 07624 483 921

www.gbgc.com

times are changing and I think that Brazil is making great progress in educating itself about the lottery industry, and will soon arrive at a more enlightened vantage point to make the necessary political decisions and regulatory changes.

The Brazilian market is severely underperforming. While CAIXA has started to be active in CIBELAE and participate in international events, it has been slow in acknowledging best practices, or to take a more proactive stance towards improving performance. Regarding the instant lottery, CAIXA's biggest distortion is the payout, which is currently at 28%. Its operation also suffers from lack of capillarity, unattractive game portfolio, and it has also "missed the wave" of higher price-point products.

Why doesn't CAIXA observe what is being done in Rio and attempt to replicate some of your success strategies?

K. Firme: To some extent, they do. We are essentially their only competitor even though we are confined to the state of Rio. They have adopted some marketing approaches that we use as well as new, non-cash prizes that we introduced in the market, such as cars, houses, motorcycles, etc. These prizes appeal to our target consumers and formed the basis for some very successful initiatives.

This is also a sensitive issue. CAIXA is the second largest public bank in Brazil, with total assets worth R$500 billion (over US$ 250 billion). It is one of the most important instruments that the government has to implement a wide variety of public policies. Lottery is only one of many responsibilities entrusted to CAIXA. CAIXA is the main vehicle for savings for the general population since it receives savings deposits which are fully guaranteed by the government. It is the institution that pays social security benefits (FGTS) and has for years been the main source of housing finance due to the lack of private financing instruments. In many ways, and for better or worse, CAIXA performs for Brazilians many of the functions usually reserved for the government.

The problem is that this is not the best context for a lottery operation. CAIXA is beset by a myriad of demands, making it challenging to optimize performance in all the different areas. If you look at the breakdown of the CAIXA lottery revenues (http://www1.caixa.gov.br/loterias/loterias/megasena/distribuicao.asp), there are many different recipients of the sales proceeds (Olympic sports, Para Olympic Sports, Culture Fund, etc.) that actually come directly out of the Prize Revenues! When you factor this in with income taxes, the player is left with a net prize payout of only 28%. Apart from disbursements that come out of prize revenues, there are still other beneficiaries "above the line" which get a direct percentage of lottery sales proceeds. To the extent that lottery players contribute to the benefit of funding different public services with very little coming back to them as prizes, the national lotteries are effectively turned into a special tax that lottery players alone have the privilege of paying. It is not for me to speculate on how to change this structure. But it is for all of us in the industry to understand the implications of this structure and how it impacts the overall challenge of creating a healthy lottery business. I do think that at this point CAIXA is aware of this argument and that it would be reasonable to expect that they are presently exploring the ways and means making some changes, and of passing laws to change the revenue structure of the lottery.

Doesn't the weakness of the national lottery create a great opportunity for the state-run lotteries to deliver a better product and value to the consumer and thereby become the gaming provider of choice for the vast majority of consumers in Brazil?

K. Firme: I do believe that there is an opportunity for the states to complement CAIXA's operation. CAIXA will always have the comparative advantage in the jackpot games space, since it has the revenues from the whole country. That large scale is a vital component to the success of jackpot games and the individual states cannot really compete with CAIXA for that reason. However, I do believe that the states, with the right model, could capture a large share of the Instant and Passive games markets. States have an excellent opportunity to build a superior operation and create games, prize structures, and marketing approaches that appeal to the consumer tastes specific to each region. And the funds they generate would go to support their own local beneficiaries.

I saw the term "poverty trap" in reference to Latin American lotteries. Could you explain what that means?

K. Firme: There is a great divide between the Latin American operations and the mature market operations of the USA, Italy, UK, France, and others like them. All the countries in Latin America suffer from very low levels of sales and rank below average in lottery performance. There are the very real economic constraints faced by lower income countries (and the even lower levels of DISPOSABLE income). The "poverty trap" you refer to is the syndrome in which low sales require a high % commission to attract retailers and a high % return to the governments. That results in a low prize-payout (avg 50%) to the consumer. This syndrome results in a perpetuation of low sales and makes it difficult to break the vicious cycle. We need to break this counter-productive syndrome of high % retail commission, low prize payouts, and low attractiveness of the product. These are things that must change to create a healthy and prosperous lottery industry in Latin America.

Additionally, in many cases including our own in Rio, the retailers are not equipped with terminals, and rely on manual (visual) validation. This prevents more interesting game mechanics and multiple chances in the same tickets because of the difficulty of checking winning tickets. Finally, because our products are sold and not consigned, few retailers are able to invest in the full product mix. We believe that terminals will allow the implementation of consignment or a credit policy that would facilitate retailer operations and enhance sales. We were just awarded a new 5-yr license and it is our goal to implement a terminal-based validation system and move towards a more effective management model for Rio.

What is the status of internet gaming in Brazil? How about Players' Clubs, social gaming, and some of the other phenomena happening in other markets around the world?

K. Firme: CAIXA has started to offer internet betting on its main game Mega-Sena, so far limited to CAIXA checking account holders through their internet home banking platform. They plan to do a roll-out to the general public once this initial test gets validated. Our current licenses in Rio do not allow internet gaming, I believe mostly due to the same restrictions that affect other markets (jurisdiction, controls etc…). This is an area where more is said than done, even by us. Being such an immature market we are still too focused on developing the traditional channels. But I am a strong believer in some of the Players' Clubs initiatives as a way to connect with the consumer and in using the internet and social medias as powerfull feedback instruments.

What are some of Hebara's business priorities and near-term objectives?

K. Firme: In 2007 we started to study other countries to look for benchmarks for our instant lottery operation. We understood the importance of higher payouts as well as the structure of a prize schedule, with sweet spots, odds, heart-stops etc. We also started increasing our portfolio mix with the intention of appealing to different target groups. Additionally to our R$ 1,00 portfolio, we lauched R$ 2,00 and R$ 3,00 games. For 2 years we sustained almost 100% growth per year and our Instants sales in Rio are now 5 or 6 times that of CAIXA.

Up until very recently, technological constraints in Brazil (i.e. cost of hardware + communications) made it almost impossible to implement terminal-based validation systems in Brazil, at least for our local operation with a 5-yr license. Right now we are confident that we have a viable model to implement a Terminal Based Validation System, based on mobile communication technology and handheld devices which will allow us to:

- Implement consignment of products allowing retailers to carry a fuller product mix without cash in advance
- Settlement of account balances with retailers via the banking system
- Lower retailer commission which is crucial to allow increases in prize-payout.
- Increase payout
- Implement a greater variety of game mechanics to attract a wider range of players.
- Implement higher price-point products
- Simplify the retailer operation to give us access to a more diversified retailer base
- Increase capillarity with a simpler , less risky operation – important for impulse purchase

We are currently running pilots to determine the best action plans and we expect to have the full project running by the end of the year.

In order to compete with CAIXA's jackpot games without the appeal of high prizes we understood that we needed to create a completely different format , based in intangible assets such as credibility and emotion. In 2007 we re-launched the weekly passive game under the name Rio de Premios, This format is anchored in a 30-minute live TV show on Sundays, which has been really successful and the product has enjoyed a steady growth since its launch. It's my pet project. This weekly draw game is a 20/50 matrix. We distribute around 1 million tickets every week and we collect the unsold tickets and process them (read the bar code) in order to determine which actual tickets and combinations were sold. Based on this we draw the 20 balls and if there is no winner among the sold tickets we keep drawing as many balls as needed to get a winner every week. We also have a slip on the ticket that gets filled out by the player and deposited in collecting boxes at the retailers containing their names, addresses and phone numbers. These slips are also collected and stored in a organized way so that during the live TV show we are able to contact the winner of the top prize. This produces a very emotional and exciting moment on live TV. In order to motivate players to deposit the slips (which is not mandatory), we give out many other prizes such as houses, cars, motorcycles, cash prizes. These other prizes are given out by physical draw of the slips. Immediately after the show, the TV presenters go to the winner's house and tape a 3-minute very emotional video showing the winner's house, their family, why they needed that prize and what they plan to do with the money. This 3-minute video is then shown on the next program. Our TV program is currently the second highest audience ranking on TV at that time slot, on some weeks we are the top ranked TV show on that particular slot. The product enjoys very high credibility and a very strong emotional link with its consumers and has had an upward trend in sales since its launch in July 2007.

The challenges that we have been talking about seem to have inspired quite creative approaches on your part. Do you think you will be able to break out of the "poverty trap", and accomplish some or most of the objectives you outlined? And when you do, won't some of the progressive strategies that you developed in spite of current constraints (initiatives like Rio de Premios and creating new kinds of prizes) reach even more players, provide you with even more content to go with the improved distribution and consumer-connection, and become an even more impactful tool to drive sales?

K. Firme: Yes. I strongly believe that with the implementation of our new Business Plan we will enter into a virtuous cycle of growth, where higher sales produce more winners, which contributes to the word of mouth and brand perception and this in turn attracts new players and retailers. We will be able to develop a more diversified portfolio, with games that appeal to different groups of consumers. We expect that in the next 5 years we will have increased sales by at least 300%. Ultimately higher sales levels will allow us to better fulfill the lottery's mission and help place Brazil in a position regarding the lottery more consistent with the country's increasing relevance in the global scenario. ◆

sure that the third party service providers are held to the highest standards, because these service providers will have the keys to the kingdom as well? Which jurisdiction will have final say or how exactly will all the countless decisions be made? What exactly happens if a dispute arises between players from two different jurisdictions? Or when one jurisdiction has a problem with a service provider who reports to another jurisdiction? Or, where criminal charges that involve parties from two different jurisdictions, whose laws apply? There are many detailed questions that need to be addressed ahead of time to avoid confusion and potentially crippling conflicts when these issues arise. Most importantly, a clear definition of responsibility and accountability is the first step towards building an effective IT system with the right kinds of security and controls. In today's electronically oriented business world, it is more important than ever for enterprises to get security and integrity right. For that reason GLI has assembled the world's leading experts for one reason: to protect your business and its profitability. Our Professional Services group at GLI is one that you can rely on for accurate, up-to-date, professional audit, diagnostic, testing and advisory services.

As games are implemented across different channels, and consumers access the games from different devices and media, doesn't that create a whole new level of complexity to secure this kind of a system?

S. Adatia: Multiple channels of distribution do mean more access points. The more system access points you have, the more difficult it is to secure. Combine that with distributed venue models, electronic machines installed in a large number of venues over a big geographical area, and the challenge is compounded. Building in the highest levels of security becomes even more important for that reason. The technological sophistication of the systems that deliver central server-based gaming across multiple platforms requires an equally sophisticated layered approach to building security and integrity into the system. Fortunately, all the technological tools and the skills to implement them are readily available.

What is meant by "layered approach"?

S. Adatia: This is a simple but vital concept. The most important element to effective security is having a robust layered approach. The key concept to understand is that nothing is 100% guaranteed. Misplaced confidence that a particular feature, process, or security measure is fool-proof is what leaves systems vulnerable. Nothing is fool-proof. There is, though, a way to make a system totally secure. The application of different layers of security can render a system impregnable. Think of it as a number of different nets that have been layered one upon another. Adding multiple and different kinds of layers of security effectively plugs all the holes and becomes virtually impossible to penetrate. Some of those layers should be provided by a third party to ensure the patterns are different and can't be deciphered by criminals. The registration process, age and identity verification, credit rating mechanisms, geo-location verification should all involve a third party agent to ensure that your in-house team is not inadvertently leaving clues and footprints for criminals to decipher. This layered approach to building a robust system of controls is effectively fool-proof.

Think about how banking has evolved. We no longer think twice about transacting business through the ATM or over the Internet. We trust the system to be secure, mistake-free and impenetrable to criminals. All the same tools are applied to internet gaming and deliver the same level of glitch-free security.

Any particularly challenging weak link in the process of securing the system?

S. Adatia: We need to have sophisticated communication protocols and encryption to thwart what's called "man in the middle attacks". That's where somebody is trying to acquire confidential information by interrupting the flow of data while it is in the process of being transmitted, while it is in the channel. Once interrupted, the criminals attempt to gain possession of it by re-routing the data to their own unauthorized server. Multiple distribution channels create not only more access points, but also more communications and data flow. Then, when you add in the complication of multiple jurisdictions that include multiple system

administrators and monitoring centers, the business of securing the system becomes even more interesting.

It would seem that the challenge increases exponentially as the number of access points increases. How does GLI help its clients deal with this complexity?

S. Adatia: It's our job to stay not just one step ahead of the technology and anticipate new areas of vulnerability, but to stay three steps ahead. Our clients expect us to counsel them on how to future-proof them so that their systems provide maximum reliability and security even as the sophistication of hackers and criminals increases over time. It is our business to identify best practices and technology to help regulators, operators, and systems and software suppliers to always be ahead of the game.

I have always thought of GLI's leadership role deriving in part from your genuine desire to help the industry. You have a business model and clients who pay for your knowledge, consultation, and testing capabilities. And yet you share your knowledge and skill-sets with the industry for the benefit of everybody and the industry as a whole.

S. Adatia: GLI is in a special position to help the industry. That is our business, and it is also our mission to help the industry, completely apart from our own business agendas and objectives. Our decades of experience with numerous jurisdictions that are both long-established and emerging new markets gives us a perspective that we are pleased to share with everyone. We work so closely with operators, regulators, and commercial suppliers, that a wealth of information passes through us that could help everyone to improve the way this industry operates. So we hold regular roundtables with regulators and operators to help them to understand the business, especially the way in which technology is evolving and the impact of that on issues of security. I think a lot of the industry brain-trust would stay locked in silos if we did not do what we do to facilitate its dissemination throughout the industry. We also have internal networks that push information out to all our different clients, sharing ideas and alerts that

help everyone. An example of this would be our GLI Client Advisories. We are also proud to develop and share our technology to increase overall industry integrity - for example GLI Access and GLI Verify tools. Technology has always evolved and improved at a pace that's faster than the shapers of public policy can move the regulatory frameworks forward. The only way to accelerate the rate of adoption of regulatory structure is to facilitate understanding by sharing information.

It seems like the challenge of keeping up with technological progress will only get more difficult. Cloud computing will now add a whole new layer of complexity. Will public policy and regulations ever catch up with the industry?

S. Adatia: No. Technology has always evolved faster than the laws and regulators can keep up with. That won't change because by definition the laws have to apply to existing technology and circumstances so those technologies and circumstances have to come before the laws and regulations. The only way for laws to catch up with technology would be to stop technological progress and nobody wants that to happen. That is, of course, one of GLI's primary missions: to analyze emerging technologies and how they will be integrated into existing infrastructure, assess the impact they will have on the industry, and share this research with regulators. You are correct to question whether the increased rate of technological change will be even more challenging for regulators and lawmakers to keep up with. The answer is yes, and we are also picking up the pace to help everyone keep up. In fact, the challenge to do so has inspired us to find better ways of keeping our clients better informed and so, perhaps paradoxically, we feel that the regulatory arm of the industry is actually adjusting quite well to the increased rate of technological change.

Another part to your question related to whether the new technologies like cloud computing will make it even more difficult for regulations and policy to keep up. It doesn't need to and we are committed to doing what we can to ensure that it doesn't. GLI will continue to develop the tools and the communications networks and

forums to enable regulators to stay abreast of technological progress. Regulators will need to evolve their standards just as GLI continually upgrades its internal standards and processes. Our goal is to help everyone identify and understand the risks and to address the risks in development of the appropriate standards. We do not prescribe solutions as such. Our role is to help everyone understand the technology and intelligently assess the pros and cons of different approaches, especially regulators.

It is not GLI's mission to weigh in on matters of public policy. But this publication has taken the position that prohibition of iGaming only contributes to the growth of the illegal, untaxed, unregulated markets that serve only to enrich criminals and put the consumer at risk of being victimized like they were with the formerly reputable Full-Tilt Poker. Isn't regulation preferable to prohibition as a means of controlling illegal activity?

S. Adatia: You are correct that it is not GLI's place to weigh in on questions of public policy. But, my personal answer to that specific question would be yes, for the same reasons that drive the position your publication takes. Policy-makers are beginning to realize that effective regulation is the best way to protect its citizens from underground operators and also to channel the economic benefits back to support the schools, hospitals, road improvements, and so forth in their own jurisdictions.

It's important to emphasize that GLI is completely neutral as to who should operate iGaming. It could be state lotteries, but it could be casinos, it could be tribes, it could be domestic or foreign operators. It could be regulated by at the federal government level or at the state level. They are all are important constituents to GLI and we are pleased to help them all accomplish their goals. GLI's job is to support whatever system the policy-makers decide to implement, and to help regulators implement it. Our job is simply to ensure that if gaming is taking place through interactive means it is doing so in a manner that is fair, secure, auditable. Moreover that it meets the proscribing regulator's technical standards, and operates as intended both by the operator and the manufacturer.

As regards to iGaming, GLI tests to ensure the effectiveness of all age, identity, location verification tools, and the security protecting confidential information and guarding against money-laundering. What else?

S. Adatia: We test for fairness to the players and non-predictability of the games. That is just as mission-critical as all other aspects of security is to the preservation of integrity and the reputation of the operator. So GLI tests to ensure that the games operate exactly as intended, to be fair and honest and not allow any players to manipulate the play to give them an unfair advantage. We test to make sure the random number generator, or alternative method of game outcome determination used, is unbiased and non-predictable. Part of that is to ensure a properly operating tracking system and database is in place so that if there is ever a dispute, there will be activity logs in place to review the game play history.

Most of these issues are not different from what you have been dealing with for years in the off-line world.

S. Adatia: That's exactly correct. Many of the same principles, and solutions, are simply being updated to apply to new channels and media. I'll circle back to the original example of online banking. e-Commerce sites are now processing much of what was handled at the cash register in a store. The solutions are technologically different, but the objectives and even the fundamental problems are not so different.

Who is your customer?

S. Adatia: Our primary customer is the regulator. GLI serves the needs of different constituents, including the commercial firms who manufacture the products, supply the technology, write the software, etc.; and the operators, casinos and lotteries and such. And we may be called upon to consult for the governments which are formulating policy. We also seek to help facilitate the entire process, identifying issues of risks and non compliance, and to ensure that the process moves fluidly. But our core mission is to serve as an independent testing lab, and in that capacity, our customer is the regulator. ◆

healthy market relies on a rational approach that works well for the operators too. Without that, the players will go to the illegal underground operators. That is unfortunate but it is also the reality. An enlightened regulatory and taxation framework enables the regulated operators to compete and get the business. That's a very, very important element of any regulatory system. Most important is to tax Gross winning rather than turnover. By doing that licensed operators can offer an attractive product. Secondly, not to restrict the offering too much. In France, for instance, where the taxation is too high, the underground markets are flourishing due to a massive competitive advantage. That is really not serving the interests of anyone. In fact, it leaves the players unprotected from illegal and potentially fraudulent operators. The only way to fight the illegal, untaxed operators is to offer a good alternative, one that appeals to the players.

How important is it for operators to offer a large variety of games? For instance, is there much crossover between sports-betting and other game categories?

K. Nylén: I do not know that there is data to answer that question with precision. However, I am from Sweden where Svenska Spel is the government operator of lotteries and other games and is also the dominant sports-betting provider. Other sports-betting operators have entered the Swedish market, but Svenska Spel still has the dominant market share. I would submit that the reason for that is they have a built-in and loyal customer base, a reputation for integrity and security, and a network of land-based retail outlets that already sell other gaming products. This gives them a huge advantage, and makes it very difficult for new entries to take customers away. Most government lotteries are in the same position. By providing the complete portfolio of gaming products including sports-betting, government lotteries could be the operator of choice for the vast majority of consumers.

How can we protect against corruption in sports that may result from match-fixing?

K. Nylén: First of all you can't regulate against match-fixing as betting takes place

globally., It needs to be a collaborative effort, between , the sports-betting operators and the federations of sports organizations. Government and shapers of public policy must also recognize that placing bets on fixed matches is predominately made anonymously and not online where you have to present valid ID's, credit cards and bank details. By regulating and taxing the sports-betting market, regulators get better control of the sports betting and also makes the underground market less important.

With respect to preservation of integrity in sports and eliminating match-fixing, the interests of licensed operators are totally aligned with those of regulators, governments, and sports federations. After all operators are the ones taking the hits of bent events. For the operator there is also a need that their customers can feel confident that the games are all honest; otherwise they will be afraid to bet because the odds of winning favor the criminals with inside information and are against the honest players. We all need to work together to fight the source of match-fixing, and that means eliminating the illegal underground market.

There is an organization for some of the leading European online operators called ESSA. It's a cooperative agreement among online bookmakers to share information for the purpose of eliminating match-fixing and corruption. ESSA has also agreements to cooperate with some of the major sports federations such as FIFA, UEFA and ATP.

Sports betting is really a transaction between a buyer and a seller, and as a seller you don't want to sell more to the people who are winning consistently. You would want to sell more to the people who are recreational players and enjoying the game more for that purpose as opposed to the professional who's basically taking profit out of the operator's pocket, albeit legally.

K. Nylén: Exactly. The outcome for the operator of sports-betting is not guaranteed. If there are more winners than losers, the operator loses money. That is why Risk Management is such an important component to an effective sports-betting operation and it is one of the cornerstones to Kambi Sports Solutions. By analyzing the customer behaviors Kambi is very successful

determining whether a customer will be a profitable customer long-term. Sports betting is a bit like Black Jack, it's very important to restrict the "wise" players (cf card counters on Black Jack). By knowing the customer profile the trader knows whether to accept high stakes or not as well as whether to change the price. The technological tools and know-how required for effective risk management are actually very sophisticated and pay for themselves by identifying and enabling the operator to avoid high-risk positions.

How does an operator determine which business functions to do themselves versus going with a complete turn-key solution?

K. Nylén: The smaller operator, and the start-up operator, really needs to go with a turn-key solution. It would take years and a costly learning process to replicate what a company like Kambi could implement in weeks. Too, you need to realize that many of these business functions are mission-critical. You can't afford to make mistakes because there is too much money involved. There is also the reputation of the operator which is a most critical asset that needs to be protected. The operator really must avoid miss-steps of any kind.

Even the large operator is better off outsourcing to a full-service provider, for most of the same reasons that apply to a small operator. The transaction-processing and risk management functions are mission-critical and that's true for large and small operators alike. In-play betting is the future and that is where it all gets complicated. Kambi offers more than 5000 in-play events per month. That is huge. Only a handful of companies do that. That enables us to implement a proven set of solutions immediately. It would literally cost the operator much more to do it themselves, and it would expose them to higher risk. It's quite expensive to build up a proper trading organization with today's demands on In-play betting. Kambi currently employ more than 250 people. Finally the operator can start making money right away, offering thousands of in-play matches with24/7 service. ◆

SMART-Tech 2012
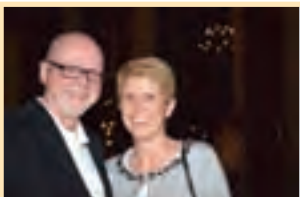## HELMSLEY PARK LANE HOTEL, NEW YORK CITY

SMART-Tech 2012
HELMSLEY PARK LANE HOTEL, NEW YORK CITY

Gambling in the EU:
Now is the time for lotteries to show vision and leadership

Philippe Vlaemminck, Attorney & Partner, ALTIUS Law firm

Delia Orabona, Attorney & Senior Associate, ALTIUS

Beata Guzik , Attorney & Social Media Specialist, ALTIUS

www. Altius.com

Gambling has been the focus of the recent discussions within the different European Union Institutions, including the European Parliament, EU Commission, and the European Economic Social Committee (EESC). While remote gambling is still an important focus, new trends and threats are emerging.

In particular, the Commission expressed the intention to adopt a Communication, to set up a discussion forum with the national regulators, and possibly propose legislative and non-legislative measures. All this is in respone to the urgent need for gambling operators to discuss and to explore the possibilities for an appropriate EU regulatory framework and for a sustainable policy for gambling.

The societal impact of gambling (addiction, public order, good cause allocation) has to be analyzed and fully covered under the chapeau of a new regulatory approach.

From its side, the Court of Justice of the EU has, in numerous cases, ruled that online gambling constitutes more than simply a different way of distribution of gambling services. Due to the higher risks which it entails, it requires a specific, well targeted regulatory approach whereby all aspects of consumer protection and public order are adequately taken into consideration.

Currently, there is no clear approach but only institutional initiatives which intend to map the panorama of gambling regulations and the impact of online gambling in the various Member States.

The absence of any regulatory framework is evident by the growing number of preliminary proceedings pending before the Court of Justice of the European Union on the application of the free movement principles in the area of gambling, as well as the pending status of infringement procedures at the EU Commission. The Court of Justice of the EU has given to the Member States the "green light" on how to regulate their gambling market. The EU has affirmed that the member states are free to choose the model, (i.e. that an 'exclusive right' system for the provision of online gambling services can be valid under European law). Even so, many Member States have been subject to the consistency test of their policies.

New national legislation on gambling has to go through the notification procedure, which is not only onerous and long. The legal and political outcomes continue to be unpredictable in many cases. Many technical problems, such as the place and format of a safe IT environment enabling regulators to fully execute their tasks, are still not settled.

Moreover, the EU secondary legislation excludes gambling services from its scope (see the E-commerce, Services Directive, CRD), or regulates it in a fragmented manner (see Anti-Money Laundering Directive, the Unfair Commercial Practices Directive) or unclear manner (the Audio Visual Media Services Directive) .

Currently, the European Commission has launched a public consultation on AML (anti-money laundering). In this respect, many gambling operators hope for an extension of the scope of the AML Directive also to forms of gambling other than just casinos.

All of this leaves a lot of questions and even more answers to find.

New threats are also emerging. One can see that operators on Social Media are looking to the remote gambling market for expanding their business. The pressure of the financial markets on social media developments needs to be watched closely. Both the Social Media operators and the investors need to understand the difference between the global environment of social networks and the strict national regulatory environment of gambling activities around the globe. At the same time, the social media networks constitute an environment that Lotteries can and should not ignore. Young adult players have different expectations. In the context of the channelling of gambling desire towards well- controlled and properly regulated low-risk games operated by Lotteries, the social media networks should be embraced by lottery operators. The same reasoning applies to the important regulatory and public affairs approach of Lotteries. Insofar as Social Media networks play a predominant role in political campaigns, both in the USA as in Europe, these networks are important for delivering the message of Lotteries to a larger audience.

In Amsterdam, the European Lotteries held their most recent Industry Days conference. All the above mentioned issues were raised. Lotteries have been discussing and studying the various legal and technical issues, and their impact on market developments, for many years. Issues like Corporate Social Responsibility (CSR) , integrity in sports, responsible gaming, etc… were first raised by the Lotteries. Innovative solutions that include the use of the Internet and the creation of coordinated lottery games (providing customers with equal opportunities without violating national rules), are examples of the ability of Lottery operators to meet these challenges. By being united and defending the specific cause of Lotteries and their role for society, Lotteries constitute a powerful source of knowledge and ideas to respond to today's challenges. Lotteries need to use this leadership position for advocating well-reasoned answers to the regulatory threats and problems. More specifically and more importantly, Lotteries must cooperate and work together to find innovative and safe solutions for the future.

Our Altius team is also working on this two dimensional programme of internal and external communication. The idea is to use this in order to deliver our regulatory ideas, solutions and answers to a broader group of stakeholders who would like to depend on us to help them keep informed of these issues. We want to embrace social media and use the vehicles and tools it provides to the benefit of Lotteries and their vital role in society. ◆

The Future of Gaming

TRU$ERV ™

Moving beyond the technology limitations of standalone gaming machines to a library of games dynamically configured, managed, deployed and optimised by you for your different venues and players results in a truly improved player experience and ultimately improved yield performance.

LOTTO
KENO
SCRATCH
SPORTS

Convergence

Lottery Integration

$

In Venue Gaming

VLT

Casino

Other Systems

Multiplayer

Unified Player View

Back Office

TRU$ERV

Secure Transactions

Online Game Library

Mobile

Wireless

Multiplayer

Multiplayer

Internet - PC

i-TV

Multiplayer

TruJackpoting
Exciting Wide area and in-venue Linked Jackpot Progressive games

TruGame$
Market leading game content from ACE Interactive and Aristocrat

TruFlexibility
Custom gaming your way, Game Development Kit supports 3rd party games

TruReliability
Proven 24/7 operation

TruPerformance
High performance Server architecture

TruServices
Comprehensive services including installation, maintenance and support

TruMarketability
Centrally managed marketing and promotions campaigns

TruManagement
Centralised management, decision support, monitoring and reporting

TruResponsibly
Extensive and easily adaptable Responsible Gaming framework

ARISTOCRAT
LOTTERIES