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THE CONSUMER SHOPPING EXPERIENCE AT RETAIL:

Time for a major re-boot!

In almost 20 years of working for and with lotteries, the concept and implementation of retail has remained virtually unchanged. While the retail ecosystem for virtually all other products has moved on, in retail, we still buy lottery tickets the way we did in the 1990's. Let's take a quick look at what's going on in retail:

According to McKinsey:

"The concept of a physical store, whether at malls, downtown districts or shopping centers, is not going away any time soon. In fact, in 2020, more than 80 percent of U.S. retail sales will still happen within the four walls of a store.

"The retailers who thrive in the next decade will be those that reimagine and redefine their stores for the digital age. Brick and mortar retailers have enormous opportunity to leverage the distinct benefits of old fashioned, in-person shopping in ways that digital sites can only dream about. Tomorrow's winners will be those who are able to transport the digital world into their stores in a manner that delights customers, builds loyalty and generates brand value."

When shopping via the Internet, there is a high degree of personalization and an understanding of who the customer actually is, what they like and don't like. By cultivating mountains of rich customer data, online retailers have a huge advantage. Every click, mouse over, time spent looking and reading can be collected and analysed—we can

understand how well email marketing programs have worked etc. And by using the latest personalisation technologies, a shopper can be presented with only those products they are interested in. It's a much better shopping experience than visiting a store, being treated as a stranger and receiving often-questionable customer service.

This new customer journey has new engagement touch points across marketing, sales and service, how do we duplicate that?

Again, from McKinsey:

"More than 60 percent of Americans have a smartphone and 80 percent of these consumers are 'smartphone shoppers'—they use their phones to help them shop while in a store, most often to research product reviews, specifications and compare prices.

"The various interactions consumers have with digital media and digital platforms have rewritten the arc of the consumer decision journey, causing shoppers to become accustomed to a much greater level of convenience, choice and accessibility. The use of a variety of online-only features—such as personal recommendations, product reviews from other customers, huge product assortments and availability, and 1-click everything—has afforded shoppers the power to make purchasing decisions much more on their own terms. When the doors swing open to the temperature-controlled confines of a store, shoppers bring many of these expectations with them."

It's a fact that we live in a totally connected world. This has changed how we shop, how we choose what to buy and when, Facebook tells us what to buy and what not to buy, TripAdvisor tells us where to holiday and where to eat and twitter allows us to complain to a worldwide audience. We can wander around a store, read the barcode of a product and find out instantly if it's any good and if it's cheaper elsewhere. Research shows that we are 12 times more likely to buy something based on recommendations from strangers than from the manufacturers' marketing material.

Thing is, where do we fit?

We at NLS believe its time to be really innovative. Its not just about technology but about the whole approach to selling lottery. We must adapt in the same way that other members of the retail ecosystem have adapted.

What's the one thing we cant buy on EBay or Amazon?—yes you guessed it, a lottery ticket. Neither can we buy a lottery ticket on supermarket e-commerce websites.

Why not?

Because its too much trouble for the EBays, Amazons, Walmarts and Tescos of this world to connect to outdated lottery central systems. Supermarkets find it really hard to get the data they need about lottery sales, in some cases having to manually ket data into their accounting systems. Well run large scale multinational retail chains want their data all in one place, no exceptions, no special devices or processes requiring manual intervention.

The lottery market has been served by the same three technology providers, with very few new parties (if any) entering the business. This has given rise to an Oligopoly which makes it difficult for lotteries to choose alternative vendors with transformative solutions. Just look at the difference between the way commercial gaming companies operate when compared to these. A casino from twenty years ago looked a lot different from casinos today, both on the gaming floor and in the systems that support it.

Real innovation has been scant. As we said at the beginning, what is the real difference between the technology we use today and that which we used 15 years ago to sell lottery tickets?

So How do we fix it?

We have to bring lottery into the 21st century. We have to take full advantage of the advances in technology:

- Engineer systems utilising modern, truly open technolgies.
- Provide standard APIs that allow external systems to connect and transact in a secure manner.

- Utilize a service bus based approach that allows the easy connection of product/game verticals as well as back office BI applications without complex interfacing.
- Adopt a thin client approach to terminal application software that is totally hardware agnostic. Again making good use of APIs to allow applications to transact with the central system, using native (Android, IOS or Windows) applications or HTML 5 based applications using responsive web design to allow the use of any and every type of terminal—not just dedicated proprietary hardware.
- Take advantage of the availability of ubiquitous, low cost bandwidth to allow the management of terminal GUIs from the central system using a powerful CMS (just as you would with any web page).
- Utilize modern secure VPN and encryption technologies to secure transactions over readily available Internet connections.
- Provide a truly “OMNICHANNEL” solution allowing the use of loyalty cards via retail as well as Internet or mobile based applications.
- The loyalty card is an app resident on a smartphone, or indeed a plastic card.
- Track transactions with the loyalty card and player management system (PMS), both from retail and Internet/mobile.
- Allow interconnected wallet to process transactions from mobile, Internet or retail.
- Provide API or ‘widgets’ that can be used by other e-commerce sites to transact with the central system—e.g. a button on Amazon’s checkout that would allow the purchase of lottery bets, and given that the purchaser is known, its easy to deliver transactions to the PMS.
- Provide API to external retailer BI systems to allow the merging of lottery transaction data with their own BI universes, allowing much richer data mining capability

Most of the large chains and super retailers really don't want to have additional devices sitting on counter space or on their checkouts. They don't want to hold up the checkout queue using separate devices to validate tickets. Installing an app on existing hardware that utilises APIs to connect to the transaction engine to validate not just lotto tickets, but also scratch cards would make it easy and desireable for retailers to sell more and capture the relevant data. Would the lottery like to allow winnings to be deducted from the retailer's invoice? It would now be possible. Would the lottery and the supermarket like to do some kind of joint promotion which buying certain products

gives a free lotto wager? It would now be possible.

It would also be possible to stock un-confirmed scratch-cards, that when passed through the POS would (again using API calls) be enabled and therefore tracked uniquely, without fear of internal loss or shrinkage.

BYOD or BYOT

Bring Your Own Device—Gartner Predicts by 2017, Half of Employers will Require Employees to Supply Their Own Device for Work Purposes. One of the biggest advantages of BYOD is its potential to speed up processes and communication in the same way that mobility—the availability of apps and information on mobile devices—has undone geographical boundaries.

In our world this would translate to BYOT or **Bring Your Own Terminal!** Again ... a radical change of thinking.

Instead of the lottery providing terminal, communications, service etc to a retailer, the lottery could ask that the retailer acquire a low cost tablet, running an android application, connected to a thermal printer and scanner via a docking station, with pre-existing wireless or wired Internet (or of course a 4G modem integrated into the tablet). The lottery would then set up an account for the retailer, provide a username and password, with which the prospective retailer could connect and download the appropriate application, or simply connect to a HTML5 site.

If we take this one stage further, the potential retailer could via the Internet, set up all the appropriate information, adding a creditcard or verifiable bank data to allow him to begin selling at low volumes very quickly, without the need for credit checks etc on any device that is available to him (this could be Android, Windows or IOS based).

In any case the Retailer Management System (RMS) should be an extension of the PMS, allowing full self service access for invoices, requests for consumables, general communication with the lottery etc. Tied to a lottery extranet, this would also provide FAQ's and training videos. We see a retailer accessing his account in the same way that a player does, either at home on a PC, or indeed on a mobile device of his choosing and of course on the terminal itself.

Most of the lottery networks in place today are built around principles that were developed in the 1980's. Based around thick client applications on proprietary devices linked via slow, private (but secure) and expensive networks to a monolithic transaction engine. Message data had to be kept short and to the point due to bandwidth constraints and costs of moving data.

As time has gone by, things have been tweaked around the edges, we have added Internet, B2B connections etc. but the old

principles hold true; a land based transaction engine interfaced with a standalone Internet platform acting as a super terminal, interfaced again with another server to send and receive transactions for B2B services, all using SOAP protocols, thus a once solid and straightforward approach becomes complicated, difficult and time consuming to manage and of course, expensive.

This has to change. It has to be possible for the lottery product to become far more available, more ubiquitous, in any shop, supermarket, service station shopping mall, Internet store, or using social media, our traditional outlets are slipping away we need new ones and they have to cost much less to replace.

All of these access points would connect directly to a 'web enabled' transaction engine, without the need of front end processors. A terminal server, could act as a translation device to enable connection to legacy gaming systems, using APIs to translate types of retailers in different languages if required, this would not need specialized technical involvement.

Providing access to reports would be a function of the GUI combined with a retailer extranet, using standard and freely available development and deployment tools. The retail POS would become "Internet enabled" or to steal from Apple, an "iTerminal!" The lottery could mix and match terminals to suit and if appropriate even use very low cost tablet devices that could almost be "disposable" In any case, if the retailer owns the device—they will take far better care of it.

Finally, in our view, todays lotteries are tied to technologies that have been far superceeded and are therefore limited by it. We believe so much more is possible with a different approach, and this has been demonstrated by the advances made in the retail world generally. BYOT will be good for retailer transacting at lower volumes probably unsustainably under the old model, they will deliver sales at MUCH LOWER COST in some cases even free of significant cost to the lottery. This allows the ultimately more responsible approach of selling to a wider audience, rather than convincing existing players to play more.

Utilising modern technology, with service bus techniques and standard APIs will allow much faster and easier connectivity to best of breed solution untying the lottery's hands with regard to selecting service providers and delivering better results faster.

message formats, so theoretically old could co-exist with new allowing for reduced migration risks.

In all cases the applications on the terminals would be native or HTML5 using responsive web design, the lottery could choose to write those applications or have an external third party do it. The supplier would provide appropriate APIs and other tools to allow this. Utilizing a CMS the terminal GUIs could easily be modified and managed to suit different ■