

# North American Association of State and Provincial Lotteries (NASPL) and The Open Group

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## **NASPL Partners with The Open Group to Implement a Multi-Phased Industry Standards Initiative**

*A Case Study by:*

The Open Group

July, 2008



QUALITY ASSURANCE  
BAR CODE  
XML RETAIL ACCOUNTING  
CORE RETAILER WEB-BASED APPLICATIONS

## ***NASPL and The Open Group***

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NASPL and The Open Group

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## **Executive Summary**

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Lotteries operate and are regulated on a state-by-state or province-by-province basis. The North American Association of State and Provincial Lotteries (NASPL) was founded in 1971 to provide a central information source where the lottery industry could share its expertise, resources, and advice with other members. Due to the decentralized nature of the lottery system, there was a tendency for each state or provincial lottery to conduct business very differently. In 2001, NASPL partnered with The Open Group's Collaboration Services to help establish the NASPL Standards Initiative (NSI) for the development of standards, best practices, and certification programs for the lottery industry. By establishing a set of processes and procedures whereby each constituent can engage openly and cooperatively, NASPL and The Open Group have helped state and provincial lotteries across North America create a truly interoperable lottery environment.

## **The Organization**

Founded in 1971, the North American Association of State and Provincial Lotteries (NASPL) has taken a quantum leap from its beginnings as an informal information exchange among three pioneering lottery directors to an active association that currently represents 51 lottery organizations across the US, Canada, and Mexico.

As the only association dedicated to North American lotteries, NASPL serves a number of functions for its members. Chief among these functions is providing a central source of information where the lottery industry can share expertise, resources, and advice with each other. The association also helps facilitate communication among lottery organizations, educates and trains lottery staff, and provides a vehicle for professional and industry research and development.

In conjunction with its work on behalf of North American lotteries, NASPL works closely with the World Lottery Association (WLA) to address issues that are common to lotteries throughout the world and their respective members.

## **The Problem**

Each state or province has separate laws and operations that govern their respective lottery systems. Despite being governed by individual jurisdictions, many lotteries are modeled after one another and they often share very similar ways of operating and functioning – but the hurdle was that they each had to function individually due to differing jurisdictional variances. Because it works with all of the North American lotteries, NASPL realized early on that having to re-invent the wheel to implement processes for each individual lottery was costly and inefficient.

## **The Vision**

In 2001, NASPL's Task Force on Standards, spearheaded by Arch Gleason, former President of NASPL (2001-2002) and current President of the WLA, began to explore the concept of forming a standards initiative to create common standards and best practices that could be shared among the entire lottery industry. The goal would be to construct a formalized method for identifying, adopting, and adapting best-of-breed standards and practices that could gain industry consensus and that all lottery constituents – lotteries, vendors, and retailers – could review and approve. This would provide not only a common method for implementing technical standards across all jurisdictions, but NASPL also hoped it would drive widespread adoption among all the lotteries.

## The Solution

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### **The Consortium Life Cycle**

*After 25 years of working with various consortia to develop standards, best practices, and certification programs, The Open Group has developed the Consortium Life Cycle model to help organizations determine and implement the standards that fit their specific needs.*

*The Open Group's Consortium Life Cycle consists of three separate phases:*

- **Consortium Formation:**  
*Helps developing consortia focus their needs and put organizational structures in place so that standards development can begin.*
  - **Standards Development:**  
*Guides consortia to create or adopt and adapt technical standards, APIs, skills requirement standards, and operational best practices that suit their organizational needs.*
  - **Market Impact:**  
*Facilitates market adoption of standards and best practices so that interoperability and best practices between buyers and suppliers within your target market are achieved.*
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As part of the NASPL Task Force on Standards' inquiries into establishing a standards development group, the Task Force contacted The Open Group for recommendations on establishing such initiatives. As a vendor-neutral and technology-neutral organization focused on open standards and certification, The Open Group already had more than 25 years' experience delivering strategic and practical services to industry consortia that were looking to meet specific business needs. The Open Group's Collaboration Services provides a number of consulting and advisory services for organizations based on its proven "Consortium Life Cycle" methodology.

Throughout its extensive history in Making Standards Work™, The Open Group had observed that most consortia go through very similar processes as they are forming and looking to create new standards. The Open Group developed a comprehensive set of Consortium Life Cycle services to support the full process of consortium formation, standards development, and market impact. Among the full services provided in the Consortium Life Cycle are: collaborative development tools; strategic advice; infrastructure and project management services; customer requirements gathering; consortia governance guidelines including fair and open review and approval processes; standards and best practices development services; and certification and testing services.

Because NASPL also realized it was imperative for standards and best practices to be implemented correctly, The Open Group was to assist in building their initiative. NASPL specifically engaged The Open Group to provide a full solution for every phase of the Consortium Life Cycle:

- Consortium Formation (including IT and organizational set-up, with consensus building to agree upon objectives)
- Standards Development (including open, fair, and neutral review and approval processes for technical standards and best practices)
- Market Impact (including certification development, implementation workshops, and customer procurement pull)

The Open Group's full-service, life-cycle approach, and their ability to customize a program that met NASPL's unique needs and requirements, were key criteria in their decision to partner.

## Putting the Consortium Life Cycle to Work

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### Consortium Formation

#### What NASPL needed:

- *Help determining how to structure their initiative and in getting lotteries, vendors, and retailers to commit to both the concept and to the initiative.*

#### What The Open Group provided:

- *Two-day facilitated Business Scenario workshop to determine, prioritize, and reach consensus on the desired standards and best practices*
- *IT Infrastructure, templates, and recommendations for the core supporting documents, such as charters and procedures*
- *Consensus building for focusing objectives and gaining commitment*

#### The benefit:

*“As a result of all the standards and best practices that were developed, the lottery industry can conduct business like any food or beverage commodity in the retail environment. The effort has truly enhanced business development.”*

*David Gale  
Executive Director of NASPL*

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### Consortium Formation

Perhaps the most difficult part of beginning a consortium is the formation of the body itself – deciding how to focus the mission of the group and hammering out what kind of requirements will drive its work as the consortium develops and grows into a standards body. During this phase with NASPL, The Open Group’s objective was to help NASPL focus its goals and processes so the actual work of the consortium could begin. NASPL was looking for help in figuring out how to get started, and how to motivate different stakeholders to commit to the concept.

The Open Group understood that bringing NASPL’s various constituents – lotteries, vendors, and retailers – together in consensus could be a difficult and time-consuming task. In order to best determine NASPL’s particular needs for standards and best practices, The Open Group worked closely with NASPL to minimize the time it would take to establish their consortium by using the “Business Scenario” approach developed as part of its TOGAF™ architecture. The Business Scenario is designed so that it can provide an overall vantage point for determining what areas of the lottery systems needed the greatest commonality and interoperability, and to build a business case for action on those needs.

By conducting a series of surveys and meetings with the NASPL lotteries, vendors, and retailers, The Open Group was able to help NASPL prioritize their specific needs for standards. In addition, The Open Group drafted a Recommendation Document with suggestions on how NASPL could establish its own NASPL Standards Initiative (NSI) to develop the standards and best practices needed, as well as to implement a certification program for them.

The Open Group helped to form NSI by working with NASPL to establish an organizational structure for the initiative that consisted of four different functional groups: the NSI Steering Committee, Technical Standards Working Group, Best Practices Working Group, and the Retail Council. Participation for each group was solicited from the lotteries, as well as from vendor and retail groups to make sure all constituents were fully involved in developing the overall initiative.

By streamlining the process of consensus building and helping to focus NASPL’s goals and requirements for NSI, The Open Group not only helped to foster fairness, neutrality, open processes, and governance as a founding basis for NSI, but it allowed NASPL to cut down the time it took to form the standards group, a process that can often take years.

### Standards Development

#### What NASPL needed:

- A set of standards and best practices that would address both the technical requirements and the practitioner skill sets required to address the needs of lotteries, vendors, and retailers.

#### What The Open Group provided:

- Business Scenario summary document articulating the business need for commonality and interoperability across lotteries
- Time-tested review and approval process managed in a fair, neutral way; open to all NASPL members
- Formation of four separate working groups - all constituents were fully involved in developing the initiatives
- A set of six standards and best practices that would address both the technical requirements and the operational needs of the lotteries, vendors, and retailers

#### The benefit:

*“As both NASPL President and Executive Director of one of the first US lottery jurisdictions to participate in the NSI verification process, I’m proud that NASPL and the South Carolina Education Lottery are driving forces in implementing the use of XML. Without the combined effort, lotteries and retailers would be challenged to increase efficiency and lower respective costs. This effort has been a win-win for all involved.”*

*Ernie Passailaigue  
Director, South Carolina Education Lottery & Current President of NASPL*

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### Standards Development

Based on the findings from the Business Scenario, The Open Group worked with the Steering Committee and each Working Group to identify and prioritize the most pressing areas for developing new standards and best practices. As part of the Consortium Life Cycle, The Open Group was able to provide experience-based advice to NASPL on the development of specifications and APIs, best practices, and common techniques for implementation that could fit NASPL’s needs. After presenting these findings to all of the vendors and lotteries participating in the NSI, four distinct focus areas were identified as top priorities for both technical standards and best practices, with two additional standards being developed in the subsequent years of engagement.

#### Technical Standards:

- The **Bar Code Technical Standard** establishes the use of UPC Bar Codes on Lottery Instant Tickets, allowing retailers to scan lottery products at their cash register or Point-of Sale (POS) system. The standard also addresses the use of bar codes for lottery-specific use in validation and tracking. By integrating these systems, the groundwork has been laid for the possibility of using a single scan for both retail and lottery purposes.
- The **XML Retail Accounting Reports Technical Standard** provides a common reporting format across all jurisdictions using eXtensible Markup Language (XML). This benefits lottery retailers by providing information electronically in a uniform format. This is especially important for larger retailers that operate in multiple lottery jurisdictions, significantly reducing the cost of customization for each jurisdiction. This also allows lotteries to use the same data elements and definitions for non-XML-based reports, which helps satisfy the needs of independent retailers.

#### Best Practices:

- The **Quality Assurance Best Practice** was designed to help lotteries and vendors build in quality assurances throughout the hardware and software production cycle from requirements definition, through development, to acceptance testing. Quality assurance helps eliminate errors in development and testing, thus reducing costs and risk and enabling retailers, lotteries, and vendors to introduce quality products faster.
- The **Core Retailer Web-Based Application Best Practice** leverages existing web technology to provide retailers with key accounting data for the successful operation of the lottery portion of their business. This approach removes the need to run reports from lottery terminals and allows the home office or accounting office to obtain this information directly from the lottery website. Large



## ***NASPL and The Open Group***

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*After working together with NASPL and The Open Group on the Global RFP Best Practice, the World Lottery Association was pleased to not only help implement a worldwide standard, but was also impressed with how the groups were able to come together.*

*“It’s difficult enough to bring together so many different constituencies within just one state or country, let alone bring them together into consensus globally. The Open Group’s process and ability to work effectively with multiple consortia on one standard was extremely helpful and made the whole process as uncomplicated as it possibly could be.”*

*Arthur “Arch” Gleason Jr.  
President & CEO, Kentucky Lottery Corporation, Former President of NASPL, and Current President of the WLA*

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retailers benefit by having consistent communications with cross-jurisdictional lotteries, and small retailers have more information available to help them control their inventories and meet the financial requirements of the lottery.

- The **Management of Instant Tickets Best Practice** builds on the Bar Code Technical Standard to fulfill the goal of making Instant Tickets consistent with other products sold at retail outlets. This clarifies the use of GS1/UPC bar codes and establishes the base XML message formats for communications between lotteries and retailers for inventory management. This will eliminate the need for lotteries to “ring-up” tickets separately, and allow them to determine Instant Ticket inventory needs with one swipe, thus reducing processing costs and risk for lotteries, vendors, and retailers.
- The **Global Request for Proposal Best Practice** establishes a uniform approach for preparing and formatting RFPs for major procurement. This saves time and money for lotteries in creating RFPs and for suppliers in responding to the RFPs.

The Global RFP Best Practice evolved into a joint project with the World Lottery Association (WLA) that has resulted in NSI’s first global standard: the Global (NASPL-WLA) RFP Standard Template, which can be used by any lottery in any state, province, or country worldwide.

The Open Group’s tried and tested processes for standards development helped to reduce the time to develop, review, and approve the standards and best practices.

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### Market Impact

#### What NASPL needed:

- A way to guarantee that lotteries, vendors, and retailers could comply with the standards and best practices the NSI developed.

#### What The Open Group provided:

- Helped NASPL establish RFP procurement best practices for lotteries
- Reduced individual training costs for implementation
- Defined the requirements for certification based on NASPL's needs and implemented the program on NASPL's behalf
- Developed implementation training courses, guides, and workshops for each of the six standards and best practices
- Reduced risk of incorrect implementation of standards and best practices

#### The benefit:

*"The project has been validated through adoption of North America's lotteries, vendors, and retailers. This partnership has enabled the lottery industry to move forward with innovation and business development."*

Andrew White  
NSI Project Manager, NASPL

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### Market Impact

NASPL, like many organizations, realized that simply having good standards and best practices was not enough to provide business value to their members – they needed to make sure that those standards and best practices became commonplace.

The critical next stage in fostering market impact was to show with confidence that the technology and the best practices had been implemented correctly. One of the best ways to achieve that confidence is through a certification or verification program, where lotteries, vendors, and retailers can be assured that their implementations are correct, ultimately resulting in increased operational interoperability and efficiencies.

The Open Group was tasked with spearheading an NSI verification program for lotteries as well as a certification program for vendors and retailers. Due to The Open Group's extensive experience in building certification programs, they were able to work quickly and effectively with the NSI working groups to define a verification or certification program component for each of the approved standards and best practices. The certification element of the Consortium Life Cycle helps groups such as NASPL guarantee that there is not only conformance across lottery systems, but it also helps establish confidence in – and, more importantly, a commitment to – the program.

In addition to helping NASPL define the requirements for NSI's certification program, The Open Group implemented the NSI certification program quickly and according to the NASPL requirements, providing a secure web-based certification system complete with on-line user guides and access to certification policies, trademark license, certification record keeping, and a public registry for certified products. From there, NSI launched the certification program, which The Open Group continues to operate and administer on behalf of NASPL and the NSI.

As the working relationship between The Open Group and NASPL grew, NASPL wanted to assume a greater role in working with the lotteries to validate their processes and verify their best practices. In order to meet this objective, The Open Group developed an Assessor Training Program for NASPL employees. As the Certification Authority for the program, The Open Group continues in the role of certifying technical standards, as well as operating and administering the underlying certification and verification programs. Through the NSI certification and verification programs, all constituents are able to work together to ensure that their systems work as expected and can interoperate effectively across lottery, vendor, and retailer environments.

One of the most effective ways to facilitate market adoption of standards is for customers to require, through their procurement process, that vendors' products comply with the standards through participation in the certification

## **NASPL and The Open Group**

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*“From the beginning of our Standards Initiative, we’ve partnered with The Open Group to create two best practices, four technical standards, and a corresponding certification program. Their help, guidance, and expertise in the field of standardization has enabled the lottery industry to move forward with innovation and business development - a priority for the association’s members. I look forward to building on our past and current success.”*

*Clint Harris  
Executive Director, Minnesota  
State Lottery & Past President of  
NASPL*

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program. The Open Group works with their collaborative services clients to help create that customer pull.

### **Market Adoption in the Lottery Industry**

NASPL and The Open Group also found that there was a significant need for additional training on implementation for many lotteries and vendors leading up to the certification/verification process. In response, The Open Group provided implementation guides and workshops for each of the technical standards and best practices. Complementary implementation teleconference workshops are offered to all lotteries, vendors, and retailers as a way to reduce their training costs, decrease the time and resources spent on implementation, and diminish the risk of incorrect implementation of the standards and best practices.

Driving market adoption for the standards and best practices is the final stage of the Consortium Life Cycle. By driving market adoption, the consortium can guarantee technical interoperability and common practices within their target market, increase operational efficiency among all constituents, and cut the cost by eliminating the need for customized programs.

### **The Bottom-Line Benefits**

Working with The Open Group has provided a number of invaluable benefits to NASPL, its member lotteries, retailers, and vendors. The ability to train personnel on specific technical standards and best practices has helped lottery and vendor employees not only improve their subject matter expertise, but it has also reduced the time, effort, and resources each lottery has had to spend meeting with each other to determine independently how best to operate. In addition, the risks and costs of developing individual solutions that may not work or be interoperable have been greatly reduced.

For retailers, the standards and best practices offer new cost-effective ways to work with lotteries. These new methods result in less risk and processing time for ticket sales and lottery accounting, which means more retailers willing to work with lotteries.

The implementation of standards has made it much easier for lotteries to ensure that the solutions they’ve put in place withstand the test of time. Each constituency that is involved in lottery decisions – management, legislatures, the public, lottery staff – now know that they can rely on the fact that their particular lottery uses verified and time-tested standards and best practices to run their business. NASPL, along with its standards and best practices, are positioned to continue as constants in the industry.

## **The Future**

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*“We’re thrilled that NASPL has been able to create standards and certification programs that work for lotteries, vendors, and retailers from state to state, and province to province. A success story like NASPL’s proves that it is indeed possible to achieve interoperability among differing constituents, and The Open Group’s Collaboration Services team has the experience and insight needed to bring groups like NASPL’s NSI together to create standards that work.”*

*Allen Brown  
President & CEO, The Open Group*

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NASPL and The Open Group continue to work together in creating widespread market adoption of the NSI technical standards and best practices. This includes offering ongoing implementation workshops and assisting lotteries and vendors in their pursuit of certification and verification.

In addition to managing the NSI certification programs, The Open Group will continue to train and work with NASPL employees to assume their roles as assessors in the Quality Assurance and RFP best practices verification programs.

NASPL created NSI because it knew that creating an interoperable lottery environment for its members would be invaluable in maintaining the quality and integrity of the lottery industry, as well as providing increased efficiencies, reduced costs, and increased profit margins for lotteries, vendors, and lottery retailers. By using The Open Group Collaboration Services’ Consortium Life Cycle approach, NASPL and The Open Group have helped state and provincial lotteries across North America create a truly interoperable lottery environment.

## **About NASPL**

Founded in 1971, the North American Association of State and Provincial Lotteries (NASPL) has taken a quantum leap from its beginnings as an informal information exchange among three pioneering lottery directors to an active association that currently represents 51 lottery organizations across the US, Canada, and Mexico.

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In conjunction with its work on behalf of North American lotteries, NASPL works closely with the World Lottery Association (WLA) to address issues that are common to lotteries throughout the world and their respective members.

## **About The Open Group**

The Open Group is a vendor-neutral and technology-neutral consortium, whose vision of Boundaryless Information Flow™ will enable access to integrated information within and between enterprises based on open standards and global interoperability. The Open Group works with customers, suppliers, consortia, and other standards bodies. Its role is to capture, understand, and address current and emerging requirements, establish policies, and share best practices; to facilitate interoperability, develop consensus, and evolve and integrate specifications and Open Source technologies; to offer a comprehensive set of services to enhance the operational efficiency of consortia; and to operate the industry's premier certification service, including UNIX® system certification. Further information on The Open Group can be found at [www.opengroup.org](http://www.opengroup.org).

If you would like information about collaboration services for your organization please contact the collaboration-services team at: [collaboration-services@opengroup.org](mailto:collaboration-services@opengroup.org).