Best Practice

Management of Instant Tickets

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NASPL

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Best Practice

Management of Instant Tickets

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Preface

North American Association of State and Provincial Lotteries (NASPL)

NASPL has approved the creation of a standards initiative, which is dedicated to the adoption or creation of Technical Standards, Best Practices, and Certification Programs that will further the lottery objectives of integrity, security, interoperability, and profitability.

The NASPL Standards Initiative (NSI) was approved and funded by NASPL and the vendor community as a collaborative development effort with participation from the lotteries, gaming vendor, and retail associations. Project management and facilitation services for standards development and certification are provided by The Open Group in conjunction with NASPL.

The NSI vision is to provide an interoperable lottery environment that is based on a set of open Technical Standards, approved Best Practices, and Certification Programs that, when implemented, will improve the quality and integrity of the lottery environment, and will provide increased efficiencies, resulting in reduced costs and increased profit margins for lotteries, vendors, and lottery retailers.

The NSI mission is to establish a resilient organizational structure, set of processes, and procedures that will engage all constituents (lotteries, vendors, and retail representatives) in an environment of open discussion and cooperative development.

Further information about NASPL is available at www.naspl.org.

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 certification. Further information on The Open Group is available at www.opengroup.org.

The Open Group publishes a wide range of technical documentation, the main part of which is focused on development of Technical and Product Standards, Best Practices, and Guides. Full details and a catalog are available at www.opengroup.org/bookstore.

Readers should note that updates – in the form of Corrigenda – may apply to any publication. For NASPL published documents, this information is available at www.opengroup.org/naspl/published.

This Document

This document is the Best Practice for Management of Instant Tickets. It has been developed and approved by NASPL in association with The Open Group.

This Best Practice is intended to establish the minimum requirements to align the Instant Ticket product line with traditional retail products.

The structure of this Best Practice is as follows:

- Chapter 1: Introduction

  This chapter introduces the concept of NASPL Best Practices and describes the purpose and scope of this Best Practice. It also defines the terminology used.

- Chapter 2: Business Context

  This chapter describes the typical business environment, the business drivers, and the objectives driving this NASPL Best Practice as context.

- Chapter 3: Best Practice Overview

  This chapter provides an overview of the Best Practice.

- Chapter 4: Best Practice Requirements

  This chapter describes the Best Practice, including detailed descriptions of the components that make up the Best Practice. The requirements contained in this chapter define how to conform to the Best Practice.

- Chapter 5: Methods, Techniques, and Additional Considerations

  This chapter describes methods and techniques that support the Best Practice.

- Chapter 6: Conformance Overview

  This chapter looks at how a certification policy and program will be developed for this Best Practice.

- Appendix A: Requirements Checklist

  This appendix provides a consolidated list of prescriptive requirements.

- Appendix B: Documentation Checklist

  This appendix summarizes the various documentation responsibilities of each party.

- Appendix C: Annotated Schema

  This appendix provides an annotated listing of the message schemas.

- Appendix D: Glossary

  This appendix provides a glossary of retail terms with details of how the term relates to lottery terminology.

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Referenced Documents

The following documents are referenced in this Best Practice:

- NSI Technical Standard: Bar Codes for Instant Tickets in the Lottery Industry
- NSI Technical Standard: XML Retail Accounting Reports in the Lottery Industry (XRAR)

These documents are available from www.opengroup.org/naspl/published.

1 Introduction

A Best Practice provides a clear description of a set of processes, procedures, and guidelines, that when practically applied to an operation brings a business advantage. A Best Practice has a record of success in providing significant advantage in cost, schedule, quality, integrity, performance, safety, environment, or other measurable factors that impact an organization. Various organizations identify and publicize Best Practices so that others – particularly internal business units, external business partners, or otherwise affiliated external organizations – can benefit from implementing the Best Practice and improving the operation of their business.

Best Practices can be applied to particular subject areas (such as new technologies or management theories), product sectors (such as software and hardware development), and vertical markets (such as the lottery industry). Best Practices are used frequently in the fields of healthcare, government administration, education, project management, hardware and software product development, and elsewhere. A commitment to using the Best Practice in any field is a commitment to using a prescribed method to ensure success.

A NASPL Best Practice is a Best Practice that applies to the lottery industry, has been approved by the NASPL Standards Initiative (NSI), and which serves as a recommendation for adoption by the lottery industry. A NASPL Best Practice is a practice that when implemented is intended to improve the quality and integrity of the lottery environment, and to provide increased efficiencies, resulting in reduced costs and increased profit margins for lotteries, vendors, and lottery retailers.

A NASPL Best Practice is described in terms of its:

- Purpose
- Components
- Constituents and their roles
- Prescriptive requirements
- Methods and techniques
- Tools
- Relationship to other Best Practices and/or Technical Standards

The development of a NASPL Best Practice involves the following stages:

1. The NSI, through the Best Practices Working Group, selects a candidate practice using specific assessment and acceptance criteria (as defined by the NASPL Steering Committee).
2. The Best Practices Working Group develops a Best Practice document.

3. Optionally, the Best Practice document is subject to an informal review process by NASPL members and the NSI participants.

4. The Best Practice document is subject to a formal review process by the NSI Steering Committee and the Best Practice Review Board.

5. A set of conformance criteria and a conformance policy for the Best Practice are defined.

Currently, this document is at Stage 4.

The approved NASPL Best Practice describes the practice in enough detail to enable it to be readily deployed by other organizations, assuming the availability of the necessary resources.

This section describes this NASPL Best Practice in terms of its purpose and its scope, and gives a definition of the terminology used throughout this document.

1.1 Purpose

The primary reason for the Management of Instant Tickets Best Practice is to improve how Instant Tickets are handled between the lottery and the retailer. Instant Tickets currently require specialized equipment and handling which results in higher costs for retailers that carry the product. Additionally, the near cash nature of the Instant Ticket product increases retailer risk. These factors often limit the amount of Instant Tickets that retailers are willing to offer, or in some cases preclude the sale of lottery products.

By adopting existing standards and best practices of the broader retail industry, the lottery industry can transform the Instant Tickets into a viable retail product consistent with all other products handled by retailers. That is the ultimate goal of this Best Practice.

1.2 Scope

The Management of Instant Tickets Best Practice covers two areas of focus on the lottery-provided support for the Instant Ticket product, as follows:

- The first focus area will clarify and refine the use of U.P.C./EAN bar coding on the lottery Instant Ticket product line and coupons.

- The second focus area is future-looking and covers electronic inventory management via standardized messaging. This second focus area takes the first step in the direction of messaging by establishing the minimum data requirements for XML messaging between systems. Future work will be needed to further establish communication methodology, security, and message translations.

The first focus area will primarily be accomplished by documenting the requirements established for bar coding of retail products to support existing retailer Point-of-Sale (POS) systems. Key focus points are:

- To clarify placement and size requirements of U.P.C. bar codes to be consistent with standard retail industry practice

- To establish minimum requirements for a standard consistent price book to support lottery products
- To establish minimum requirements for U.P.C. bar codes on supporting products

The second focus area will establish minimum electronic formats to facilitate System-to-System (S2S) inventory management between the lottery and the retailer, including:

- Ordering
- Shipping
- Receipt
- Status
- Price Sales Catalog Maintenance
- Validation
- Activation

Additionally, the second focus area will establish a minimum format for electronic retailer to lottery sales reporting. As the Best Practice is developed, retail-specific terms will be captured and included in Appendix D to facilitate communications with retailers about the Instant Ticket product.

1.3 Terminology

This section provides a set of terms and their definitions, which should be used when describing and interpreting the Best Practice requirements specified in this document.

Must	Indicates an absolute, mandatory requirement of the Best Practice that has to be implemented in order to conform to the Best Practice.
Should	Indicates a recommendation that ordinarily must be implemented. To conform to the Best Practice, an acceptable justification must be presented if the requirement is not satisfied.
May	Indicates an optional requirement to be implemented at the discretion of the practitioner, and which has no impact on conformance to the Best Practice.
Must not	Indicates an absolute preclusion of the Best Practice, and if implemented would represent a non-conformity with the Best Practice.
Should not	Indicates a practice explicitly recommended not to be implemented. To conform to the Best Practice, an acceptable justification must be presented if the requirement is implemented.

2 Business Context

This chapter describes the typical business environment, the business drivers, and the objectives driving this NASPL Best Practice as context.

2.1 Business Environment Summary

2.1.1 Business Scenario – General Description

This section describes the stakeholders in a typical lottery operation. The roles played by the constituents are not necessarily the same for every lottery. The constituents may take on different roles during the execution of business processes based upon local practice, how the lottery is organized, the budget allocated to the lottery organization, or any number of other factors. These roles may actually change over time.

The key organizations and entities in the typical lottery business environment are illustrated in the following figure.

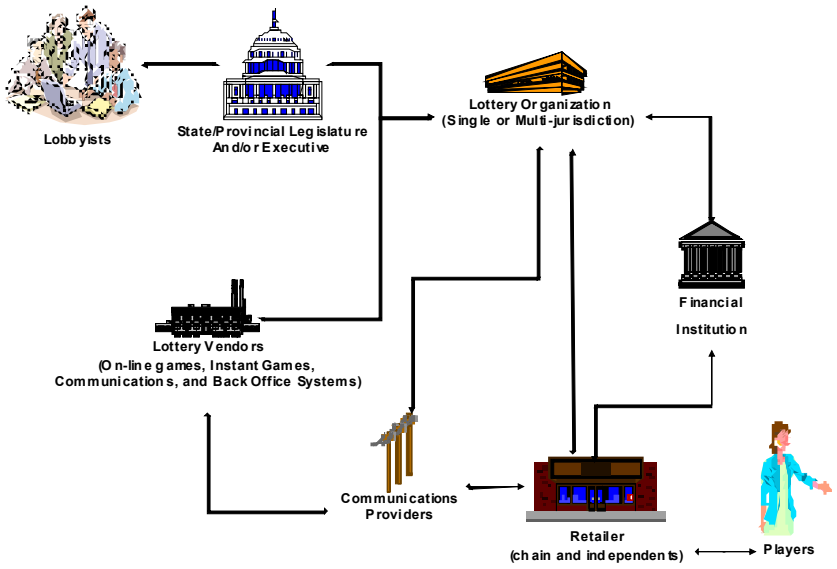

Figure 1: The Lottery Business Environment

Not all organizations will have all of these components and relationships. However, the figure illustrates a number of points typical of lottery enterprises, each of which has particular implications for the benefits of standards for the lottery industry.

The following list of constituents and the roles they play in the larger lottery environment is provided here to give a big picture view. The constituents involved in this Best Practice and the

roles they play are a subset of those in the larger lottery environment and are identified in more detail in subsequent sections.

Constituent	Role Played
State Executive or Legislature	• Authorize lottery operation under state/provincial laws. • Direct use of lottery revenues (and by implication, lottery operating budgets). • Monitor and audit lottery operations, sometimes impacting lottery development. • May appoint lottery director.
Board of Directors/ Lottery Commissioners	• Oversee lottery organization and their policies and procedures. • Hire lottery executives. • Approve major lottery contracts.
Lottery Organizations	• Conduct overall operation of the lottery. • May operate lottery IT infrastructure. • May develop games. • Oversee lottery integrity and security, including validation of winners. • Optimize profitability from games (current and future), selecting new games, stopping old games, developing new games, and managing the selection and implementation of game infrastructure through Requests For Proposals (RFP). • Manage retailers; including accounting, and game material inventory; e.g., instant game books. • Manage vendors, including possible outsourcing of lottery operations. • Develop marketing campaign. • Manage large prize payouts individually or in conjunction with multi-state organizations.
Retailers/Agents	• Sell lottery tickets and games at retail location. • Market lottery products. • Validate and redeem tickets. • Manage and account to lottery for sales including ticket “books”, redemption of unsold game books. • Manage accounting of lottery contribution to store profit and loss. • Optimize contribution of lottery sales (within lottery regulations) to store.
Financial Institutions (e.g., banks)	• Provide “sweep accounts” to facilitate transfers of funds from online and Instant Ticket purchase between the retailer/agent and the lottery. • May provide interface between state treasury and lottery.
Players	• Play online and instant games, self-validate tickets (in some jurisdictions), redeem tickets, and receive winnings.
Lottery System Vendors	• Provide lottery systems, components, games, and/or products. • May provide the networking component (possibly customized) of a lottery system. • Operate lottery IT systems (under subcontract from lottery organization) in many jurisdictions. • Provide maintenance, field, and technical service in some jurisdictions. • Respond to Requests For Information (RFI), Requests For Proposals (RFP), and Requests For Software Changes (RFS). • Provide marketing, games design, print, and distribution of tickets to

Constituent	Role Played
	lottery systems vendors.
Telecommunications Providers	• Provide the networking component (possibly customized) of a lottery system.
Courier Services (Distribution Vendors)	• Provide delivery of Instant Ticket inventory to retailers.
Lobbyists	• Impact lottery responsibilities and limitations (through legislature) within a jurisdiction.

2.1.2 Operational Scenario

This section depicts a typical operational scenario, highlights the major processes, and illustrates the associated need for the Best Practice. It also identifies the constituents who will be carrying out the Best Practice.

The operational environment for this Best Practice is:

- **Dynamic** – Lotteries continually upgrade existing games and institute new games so that their business can evolve and grow. High availability with optimum performance and quality software and hardware are essential in the lottery business so that downtime during upgrades, deployment of new games, and ongoing operations is minimal.
- **Diverse** – Since there is no enforcement of a common method among lotteries, every jurisdiction's operation executes slightly differently and according to its own method of choice and interpretation, as well as statutory or administrative rules. However, there should be an effort to provide commonality between states where possible.
- **Local and culturally-specific** – Geographical differences mean that jurisdictions vary, manifesting in diverse needs. This represents diversity in participants and method, including cultural differences.

It is imperative that the Best Practice supports this business environment.

2.1.2.1 Operational Functions and Processes

The key functions and processes that require best practice support are further identified in the table below. The specific needs within each business function or process requiring best practice support are also described.

Function/Process Name	Best Practice Needs
U.P.C. Compliance	Augment the NSI Technical Standard: Bar Codes for Instant Tickets in the Lottery Industry with minimum requirements for U.P.C. bar code size and placement.
Price Book Compliance	Identify and document the back-office support requirements for product identification, pricing, and management.
Support Product Bar Codes	Establish parameters for U.P.C. bar coding on supporting packaging, including packs.
Standardized Electronic Inventory Management Formats	Identify, document, and establish minimum electronic data formats for standardized inventory management between lottery and retailer systems.

Function/Process Name	Best Practice Needs
Standardized Sales Reporting Format	Identify, document, and establish minimum electronic formats for sales reporting from the retailer to the lottery.

2.1.2.2 Operational Topology

The topology of the environment to which this Best Practice applies typically represents distributed and separate locations with variable overlap – and sometimes complete overlap – between some of these entities:

- Lottery Organization
- Retailer Site
- Retailer Management Office
- Gaming System Vendor
- Instant Ticket Manufacturer/Vendor

2.1.2.3 Operational Location Information

The following matrix shows the *primary* locations where each of the functions or processes related to this Best Practice is executed, though all identified locations may not be involved in every situation. In cases where different parts of a function or process involve different locations, the component parts of the function or process are identified. This demonstrates the need for integration of different requirements when creating and adopting this Best Practice.

	Locations				
Functions/Processes	**Lottery Organization**	**Retail Site**	**Retailer Mgmt. Office**	**Gaming System Vendor**	**Instant Ticket Vendor**
U.P.C. Compliance	x				x
Price Book Compliance	x				x
Support Product Bar Codes	x				x
Standardized Electronic Inventory Management Formats	x	x	x	x	x
Standardized Sales Reporting Format	x	x	x	x	x

2.2 Business Rationale

This section describes the business drivers, objectives, and benefits of implementing this Best Practice.

2.2.1 Business Drivers

The major business drivers for implementing the Best Practice are:

- Utilize U.P.C. bar codes to leverage existing retailer Point-of-Sale (POS) and back-office systems to manage and control the Instant Ticket product. This will allow the retailer to utilize the same systems that manage and control the other products they carry to manage and control Instant Tickets.
- Establish the minimum standards for electronic exchange of Instant Ticket inventory management between the retailer and the lottery. This will allow retailers to utilize their existing back-office support technology to handle Instant Tickets consistent with the other products they carry.
- Establish the minimum electronic formats for retailer-to-lottery sales reporting on Instant Ticket products. This can provide the same level of detail on Instant Ticket sales as current gaming systems produce for online products.

2.2.2 Objectives and Benefits

This section outlines some of the business objectives for introducing the Best Practice and some of the benefits that could be attained once the Best Practice has been adopted. This Best Practice will have the greatest potential short-term benefit to retailers. Lotteries and vendors will see their benefits in a longer-term period, but short-term controls will be improved. This is expanded below.

Retailers will have the most potential for dramatic benefits with this Best Practice. These benefits begin when the U.P.C. bar coding work is completed for the Instant Ticket product. With a reliably readable, valid bar code and the supporting price book data for the retail POS system, the retailers can start using their existing technology to manage Instant Ticket sales. This is a key factor, since most retailer systems already have proven methods for controlling inventory and reducing employee theft. POS systems provide shift balancing, till balancing, physical inventory support, and activity tracking. These are all features that are well beyond most lottery terminal-based support.

With the addition of supported electronic formats for inventory management, many retailers will be able to utilize the same system they use to order, track, and sell their other products for the Instant Ticket product. This makes each retailer more efficient, since a system they know and have been trained to use will make use of the electronic format to communicate with the lottery. Chains and large retailer outlets can also use their systems to track inventory across all of their store locations.

From a lottery point of view, the benefits from implementing the Best Practice come in two ways. The first is the immediate improvement of inventory handling at the retailer level. This will allow most retailers to increase the Instant Ticket presence in their locations. More tickets available will result in higher sales. Longer term, the patterns of sales from getting the sales reporting information back from the retailers can help refine and improve the Instant Ticket product to make it more effective in varying market places.

The second benefit comes from providing a consistent retail focused system to manage inventory that will open new markets. Many larger chains and big-box stores will not carry the Instant

Ticket product due to the special handling and equipment required by the product. Adopting this Best Practice brings the lottery product into line with other retail products, opening new doors.

Vendors in this industry always benefit from increased sales. As the Instant Ticket product gets wider acceptance and can be handled better at the retail level, sales will increase, benefiting gaming and Instant Ticket vendors alike.

3 Best Practice Overview

3.1 Overview

This Best Practice establishes a common foundation to improve the management of Instant Tickets between lotteries and retailers. This foundation has six key components, as follows:

- To enhance proper use of the U.P.C./EAN bar code on Instant Tickets – as described in the NSI Technical Standard: Bar Codes for Instant Tickets in the Lottery Industry – by establishing minimum size, white space, and placement requirements for bar codes consistent with GS1 requirements.
- To establish requirements for proper U.P.C./EAN and supporting bar codes on wholesale packaging, which is commonly called a "pack".
- To establish minimum requirements for a lottery-specific U.P.C. price sales catalog consistent with the retail industry.
- To establish the minimum requirements for electronic messaging formats for the exchange of inventory management data between a lottery and a retailer.
- To establish the minimum requirements for enhanced electronic messaging that will facilitate specialized Point-of-Sale (POS) handling on Instant Tickets by the retailer, including pack activation and ticket validation.
- To establish the minimum requirements for electronic messaging to support retailer-to-lottery sales reporting.

Each of these components represents a set of requirements that pertain to each of the constituents of this Best Practice which are detailed in Section 3.2.

3.2 Constituents and Roles

As detailed in Section 2.1.2.2 above, this Best Practice will affect the following constituents:

- Lottery Organization
- Retailer Site
- Retailer Management Office
- Gaming System Vendor
- Instant Ticket Manufacturer/Vendor
- Specialty Vendors

The role in the Best Practice for each constituent is detailed in the remaining sections of this chapter.

3.2.1 Lottery Organization

Lotteries will be required to adopt the bar code requirements of this Best Practice in the production of Instant Tickets and the supporting packaging. Lotteries will also need to produce or require their vendor to produce their specific U.P.C. price sales catalog consistent with the Best Practice. Additionally, the lottery systems that manage the Instant Ticket product will need to be enhanced to produce and receive the messaging formats established by the Best Practice.

The lottery will also decide whether or not to support the enhanced messaging to facilitate retail POS handling of pack activation and Instant Ticket validation. If this is supported, the lottery will need to comply with the messaging format requirements established by this Best Practice.

Finally, the lottery will need to enhance their back-office systems to receive and handle retailer sales reporting as established by this Best Practice.

3.2.2 Retailer Site

The focus and intent of this Best Practice is to minimize required changes at the retailer level. Rather, the Best Practice establishes the lottery focused requirements to allow the retailer to utilize existing POS and inventory management systems currently employed in day-to-day operations.

3.2.3 Retailer Management Office

The bar coding requirements of this Best Practice allow existing retailer systems to handle Instant Tickets at both the wholesale and retail levels. No retailer changes will be required to leverage these requirements.

The messaging formats will require enhancements to retailer back-office systems to support electronic message exchange. The intent of the Best Practice is to minimize the impact of the messaging enhancements by leveraging both existing messaging types and current XML technology. Retailers will also need to generate sales data for Instant Tickets consistent with the sales reporting message formats.

Finally, to support enhanced POS handling of the Instant Ticket product, the retailer will be required to enhance their systems to support the messaging formats of this Best Practice or to utilize a translation from their format to the XML Schema format defined in this Best Practice.

3.2.4 Gaming System Vendor

Gaming system vendors that support the management of Instant Tickets will need to comply with the messaging formats established in this Best Practice. The Best Practice is designed to allow compliance to occur in two forms:

- Native support of the electronic messaging formats specified by the Best Practice
- Via translations from vendor-specific formats to the messaging formats defined in the Best Practice

Gaming system vendors will also need to support the messages for sales reporting from the retailer.

The Best Practice also creates the necessary foundation and interface for gaming system vendors to develop a more robust system to support the specialized requirements of Instant Tickets in both pack activation and Instant Ticket validation.

3.2.5 Instant Ticket Manufacturer/Vendor

Instant Ticket vendors will be affected by this Best Practice in the area of printing requirements for U.P.C./EAN bar codes. However, the Best Practice aligns the lottery use of these bar codes to be consistent with broader retail industry use. This should minimize impact to ticket production.

3.2.6 Specialty Vendors

This is a group of vendors that provide support to a specialized segment of the lottery industry. Primarily, this Best Practice will affect vendors who provide support to smaller retailers in the area of Instant Ticket management. These specialty vendors provide balancing and inventory management tools to augment handling of Instant Tickets to retailers that do not have a back-office system capable of these functions. The Best Practice will require these systems to support the core messaging format for inventory management. Specialty vendors that provide POS support may also include the enhanced messaging formats that support pack activation and/or Instant Ticket validation.

3.3 Relationship with Other NSI Documents

The Management of Instant Tickets Best Practice relies on the NSI Technical Standard: Bar Codes for Instant Tickets in the Lottery Industry for bar code formats and content.

There is also a relationship to the NSI Technical Standard: XML Retail Accounting Reports in the Lottery Industry (XRAR). The XRAR standard covers reporting financial information to retailers on lottery activity. These are electronic versions of after-the-fact reports. The XRAR standard utilizes XML schemas, developed by PCATS to define the accounting reports. There are areas of overlap, most specifically in the area of game sync in the XRAR standard and the price sales catalog message in this Best Practice. However, the intent of the two XML schemas is different.

As mentioned, the XRAR standard addresses reports for activity that has already occurred, such as invoices and daily recaps of activity. This is a summary of activity provided by the lottery based on actions taken via the lottery sales terminal. The message formats defined in this Best Practice are designed to cause the actual events to occur, via retailer back-office-to-lottery communications independent of a lottery terminal. The XRAR reports will still provide the resulting activity of the messages defined in this Best Practice.

4 Best Practice Requirements

4.1 Enhanced U.P.C./EAN Bar Code Requirements

The NSI Technical Standard: Bar Codes for Instant Tickets in the Lottery Industry describes the nature of the encoding for the U.P.C./EAN bar code. To comply with this Best Practice, lotteries must require that Instant Tickets comply with the most current NSI Technical Standard. Instant Ticket manufacturers must also comply with the most current NSI Technical Standard.

Additionally, this Best Practice defines the size, quiet zone, and placement requirements for Instant Tickets. These factors are critical for consistent and accurate scans by existing Point-of-Sale (POS) equipment.

4.1.1 Size Requirements

The U.P.C./EAN bar code is the most widely utilized format for encoding product information for POS scanning. The GS1 General Requirements Section 5.1 v 7.1 defines the nominal size of the U.P.C./EAN bar code to have a height of 1.02 inches and a width of 1.47 inches. When size of the product is a constraint, the GS1 requirements allow for a maximum reduction to 80%. This Best Practice will adopt the same nominal size requirements and defines the minimum size required to be 80% of the nominal size.

Lottery jurisdictions have different legal requirements for Instant Tickets. Many jurisdictions have legal requirements for specific language about the game, odds, etc. Additionally, legal requirements may specify minimum text size. These legal requirements can make placement of the minimum size U.P.C./EAN bar code impossible. This will be most common in the format size of 2 inches by 4 inches, used in the $1 ticket denomination. For tickets that do not have adequate room for the U.P.C./EAN bar code, the use of the GS1 Databar omni-directional bar code is an acceptable alternative. The GS1 General Requirements Section 5.5 v 7.1 provides the requirements for the Databar bar code format, formally known as the RSS-14 format.

Lotteries must require that all Instant Tickets have a U.P.C./EAN bar code meeting the minimum size requirements of 80% of the nominal size where space on the ticket will permit. If legal requirements prevent the minimum size U.P.C./EAN bar code, the GS1 Databar omni-directional bar code must be used.

Lotteries should require that all Instant Tickets have a U.P.C./EAN bar code meeting the nominal size requirements.

Instant Ticket manufacturers must be capable of producing U.P.C./EAN or Databar omni-directional bar codes on Instant Tickets meeting both the minimum and nominal size requirements.

4.1.2 Quiet Zone Requirements

The GS1 General Requirements Section 5.1 v 7.1 defines a "quiet zone" (i.e., an area with no printing) that is directly around the U.P.C./EAN bar code. This quiet zone allows accurate recognition of the U.P.C./EAN bar code. The minimum quiet zone for the left-hand size is 0.14 inches, while the minimum quiet zone on the right-hand side is 0.09 inches. Many retailers have increased these minimum requirements to 0.25 inches around the U.P.C./EAN bar code to allow support of various POS equipment. This Best Practice will adopt the GS1 recommendations as the minimum quiet zone for U.P.C./EAN bar codes and adopt a suggested quiet zone of 0.25 inches on all sides of the bar code. The GS1 Databar does not require a quiet zone.

Lotteries must require a quiet zone around U.P.C./EAN bar codes on all Instant Tickets meeting the minimum requirements as defined above. Lotteries should require a quiet zone of 0.25 inches on all sides of the bar code.

Instant Ticket manufacturers must be capable of printing U.P.C./EAN bar codes consistent with the minimum quiet zone requirements defined above, as well as the suggested requirements defined above.

4.1.3 Placement Requirements

Placement is a feature that allows consistency in location. This allows retailers to easily locate the U.P.C./EAN or GS1 Databar bar code for scanning at the POS.

The U.P.C./EAN bar code must be located on the back of the Instant Ticket in a set location that will be determined by the lottery. This location should be consistent on all Instant Tickets produced by or for the lottery jurisdiction.

4.2 U.P.C./EAN Bar Code Requirements for Supporting Packaging

Traditionally, the wholesale distribution packaging for Instant Tickets is the pack or book of tickets. This Best Practice will refer to this wholesale packaging as a "pack". Packs have a lottery-specific bar code for serialized tracking of the pack, most commonly utilizing the last ticket in the pack that exposes the lottery-specific bar code. This Best Practice will require the addition of a U.P.C./EAN bar code to the pack that will uniquely identify the pack by game. This will require the insertion of a card or other mechanism to hold the U.P.C. bar code that identifies the pack at the game level. This can add cost to the Instant Tickets game. If an insert card is already being utilized, the U.P.C. bar code may be added to the existing card. The serialized bar code or pack number information should remain in place as well.

For clarification, the U.P.C. bar code used for the pack must be distinct from the bar code used on the tickets for the same game. In effect there will be two U.P.C. bar codes for each instant game: one U.P.C. bar code for the ticket and one for the pack. This is commonly handled in the retail industry through the use of the GTIN bar code on the wholesale packaging. GTIN bar coding is consistent with U.P.C./GS1 established standards.

The pack U.P.C./EAN bar code must meet the content requirements defined by the NSI Technical Standard: Bar Codes for Instant Tickets in the Lottery Industry. Additionally, the pack bar code must meet the following requirements.

4.2.1 Size Requirements

The GS1 General Requirements Section 5.1 v 7.1 defines the nominal size of the U.P.C./EAN bar code to have a height of 1.02 inches and a width of 1.47 inches. U.P.C./EAN bar codes may be increased in size to accommodate better scanning. The size may be increased to 150% of the nominal size. This Best Practice will adopt the same nominal size requirements and defines the maximum size required to be 150% of the nominal size.

Lotteries must require that all Instant Ticket packs have a U.P.C./EAN bar code meeting the nominal size requirements. Lotteries should require that all Instant Ticket packs have a U.P.C./EAN bar code meeting the maximum size requirements.

Instant Ticket manufacturers must be capable of producing bar codes on Instant Ticket packs meeting both the nominal size and maximum size requirements.

4.2.2 Quiet Zone Requirements

The GS1 General Requirements Section 5.1 v 7.1 defines a "quiet zone" (i.e., an area with no printing) that is directly around the U.P.C./EAN bar code. This quiet zone allows accurate recognition of the U.P.C./EAN bar code. The minimum quiet zone for the left-hand size is 0.14 inches, while the minimum quiet zone on the right-hand side is 0.09 inches. Many retailers have increased these minimum requirements to 0.25 inches around the U.P.C./EAN bar code to allow support of various POS equipment. This Best Practice will adopt the GS1 recommendations as the minimum quiet zone for U.P.C./EAN bar codes and adopt a suggested quiet zone of 0.25 inches on all sides of the bar code.

Lotteries must require a quiet zone around U.P.C./EAN bar codes on all Instant Ticket packs meeting the minimum requirements as defined above. Lotteries should require a quiet zone of 0.25 inches on all sides of the bar code.

Instant Ticket manufacturers must be capable of printing U.P.C./EAN bar codes consistent with the minimum quiet zone requirements defined above, as well as the suggested requirements defined above.

4.2.3 Placement Requirements

Placement is a feature that allows consistency in location. This allows retailers to easily locate the U.P.C./EAN bar code for scanning at the POS.

The U.P.C./EAN bar code must be located on the face of the Instant Ticket pack in a set location that will be determined by the lottery. This location should be consistent on all Instant Ticket packs produced by or for the lottery jurisdiction.

4.3 U.P.C./EAN Bar Code Requirements for Coupons

Many lotteries are using coupons to provide an incentive for customers to play the game. These may take the form of either an Instant Ticket coupon or an online game coupon. In either case, a U.P.C./EAN bar code would facilitate the retail handling of the coupon. The coupon should also

be set up with the back-office system using the price sales catalog entry defined in Section 4.4 below.

Lotteries must require that all coupons have a U.P.C./EAN bar code meeting the minimum size requirements of 80% of the nominal size where space on the ticket will permit. If legal requirements prevent the minimum size U.P.C./EAN bar code, the GS1 Databar omni-directional bar code must be used.

Lotteries should require that all coupons have a U.P.C./EAN bar code meeting the nominal size requirements.

Lotteries must require a quiet zone around U.P.C./EAN bar codes on all coupons meeting the minimum requirements as defined above. Lotteries should require a quiet zone of 0.25 inches on all sides of the bar code.

4.4 Requirements for U.P.C. Price Sales Catalog

The U.P.C. price sales catalog is a data set that contains the detailed information supporting products that have a U.P.C./EAN or Databar bar code. The bar code provides a unique identifier, and the data set provides at a minimum the product description and price. Section 5.4 holds additional information on how various applications and tools utilize the U.P.C. price sales catalog.

4.4.1 Core Price Sales Catalog Formats

To make efficient use of the U.P.C./EAN and Databar bar codes, this Best Practice requires that lotteries provide a U.P.C. price sales catalog to retailers. This will take the form of an XML file defined by an XML schema as described in Appendix C of this Best Practice. There are two formats: one for a complete U.P.C. price sales catalog containing all current Instant Ticket games, and a second providing a price sales catalog update containing one or more new games.

Lotteries must provide a current U.P.C. price sales catalog containing all Instant Tickets offered at the point in time of the request. This U.P.C. price sales catalog must meet the XML format defined in Appendix C. The U.P.C. price sales catalog must be available to retailers upon request. Lotteries should provide the U.P.C. price sales catalog on a web site that can be accessed by retailers.

Lotteries must provide an update to the U.P.C. price sales catalog meeting the XML format defined in Appendix C as new Instant Tickets are introduced into the market. Lotteries should provide these updates on a web site that can be accessed by retailers. Updates should be made available ten (10) business days prior to the release of new products.

Vendor Instant Ticket support systems must be capable of generating a current U.P.C. price sales catalog containing all Instant Tickets offered at the point in time of the request. This U.P.C. price sales catalog must meet the XML format defined in Appendix C. The U.P.C. price sales catalog must be available to retailers upon request.

Vendor Instant Ticket support systems must provide an update to the U.P.C. price sales catalog meeting the XML format defined in Appendix C as new Instant Tickets are introduced into the market.

4.4.2 Extended Marketing Attributes to the Price Sales Catalog

A set of enhanced attributes is also defined in the XML schemas in Appendix C. These attributes are optional and include information about the marketing aspects of the Instant Ticket game. These enhanced attributes provide key information that will aid ordering decisions about the various Instant Ticket games produced by lotteries.

Lotteries should provide the enhanced optional elements of the price sales catalog as defined by the XML schema in Appendix C.

Vendors of Instant Ticket support systems must provide the enhanced optional elements of the price sales catalog as defined by the XML schema in Appendix C.

4.4.3 Closing a Game using the Price Sales Catalog

Many lottery jurisdictions now close sale on Instant Ticket games after all top prizes are claimed. This is done for a variety of reasons, but requires that retail systems recognize this game end date and stop selling the games. The price sales catalog provides the means to communicate this to retail systems along with other product set-up information. An extended set of attributes is included in the XML schemas defined in Section C.3.1.

Lotteries that close games should utilize the extended attributes of the price sales catalog defined in Section C.3.1 to communicate game closures to retail systems.

Instant Ticket management system vendors must support the extended attributes of the price sales catalog defined in Section C.3.1 to communicate game closures to retail systems.

4.5 Requirements for Core Electronic Messaging Formats

The core electronic message formats are defined in Section C.4 of this Best Practice. These formats are in the form of XML schemas that define the mandatory and optional elements for the formats. The core messages support the electronic management of Instant Tickets leveraging the U.P.C./EAN or Databar bar codes.

Lotteries must be capable of accepting and responding to the core electronic messaging formats. Lotteries must support all mandatory elements defined in the core electronic messaging formats, and should implement the optional elements.

Lotteries should have the capability of accepting and responding to the core message formats in an automated manner.

Vendor Instant Ticket support systems must be capable of supporting automated acceptance and response of core electronic messaging formats. Vendors must support all mandatory elements defined in the core electronic messaging formats and should support all optional elements.

4.6 Requirements for Enhanced Electronic Messaging Formats

Enhanced message formats are primarily focused at the future direction of the management of Instant Tickets. These enhanced messages are defined in Section C.5 and fall into two categories: POS validation and POS pack activation. There is an underlying technical requirement for both of these message types. This technical requirement is a real-time or near-real-time connection between the retailer POS or back-office system and the lottery Instant Ticket management system. This Best Practice does not define this technical requirement, since most existing lottery systems rely on specific communication technology. There is, however, a large body of work in other areas of data communications that provide proven means to accomplish this type of real-time communication.

The value of implementing these enhanced message formats will justify the effort in many jurisdictions. This value will be seen primarily in the area of new lottery retailers. With these formats implemented, there is no need for the retailer to utilize any specialized lottery equipment to handle retail sales and validation of the Instant Ticket product. The need for specialized equipment in large chains has been the major barrier to many chains that only deal with their own equipment.

Lotteries may implement the enhanced message formats.

Vendors of Instant Ticket management systems should provide the capacity to implement the enhanced messaging formats, including the capability of real-time or near-real-time communications.

4.7 Sales Reporting Requirements

With the implementation of the U.P.C./EAN and/or Databar bar codes, the U.P.C. price sales catalog, and the core messaging formats, the retailer's POS systems will be able to track actual sales information of the Instant Ticket product. Providing details about the sales information back to the supplier is a common retail industry practice. This sales data aids the supplier in developing and suggesting marketing techniques to retailers that can increase product sales. Section C.6 provides an XML schema format for the exchange of retail sales information on the Instant Ticket product.

Retailers should provide the sales data from their POS system to lotteries for marketing analysis.

5 Methods, Techniques, and Additional Considerations

This chapter describes in detail the methods and techniques that support the Best Practice. These methods and techniques are provided as guidance for adoption of the Best Practice. The use of any of the specific methods, techniques, or additional considerations described within this chapter is not required for a business practice to be considered conformant with this Best Practice, unless such use is specified in the requirements in Chapter 4.

In particular, this chapter will be used in this Best Practice to identify and document non-lottery products that have a similar aspect to Instant Tickets and are successfully utilizing U.P.C. bar codes and electronic interfaces to leverage retailer systems. These products and the accompanying supporting formats will provide a basis for establishing the electronic formats for Instant Tickets, documented in this Best Practice. They will also provide information that can be used to make practical use of the electronic formats defined in the Best Practice.

5.1 Electronic Formats – General Information

One of the key components of this Best Practice is to establish electronic data formats for system-to-system (S2S) or business-to-business (B2B) interaction. The general difference between S2S and B2B is that the data exchange in S2S is one machine speaking to another, while in B2B there may be humans involved. The lottery-to-retailer relationship is diverse with small and large retailers. This requires the consideration of both types of communications. System-to-system and system-to-human must be supported.

5.1.1 Standard Interface

The electronic formats defined in the Best Practice will create a standard interface between the lottery and the retailer. This standard interface will allow diverse systems on either side of the interface to communicate. In most automated systems, a standard interface takes the form of a message. The message allows systems on either side of the interface to receive and request information from the other system in a defined manner without the need to have elaborate application-level interfaces.

Messages can be asynchronous and either processed immediately, queued, or ignored. The support for a message can be indicated by the interface definition. Messages also allow human interfaces to interact with the system in a similar manner to systems. For instance, a message-based system could be accessed via a web portal where a person's request via a browser could be converted into a message and the response would be formatted for web display.

5.1.2 Message Types

Message types are as follows:

- One-way: A message that by definition comes from one party to another.

- *Ad hoc*: A message that can be generated by either party as desired.
- Scheduled: A message that occurs at a defined time interval.
- Request: Generally a flag on an *ad hoc* type that can request a return message with the content of the sent type of message.
- Acknowledgement: A specialized message indicating receipt of a message.
- Request/Response: A matched pair of messages generally requiring a real-time or near-real-time response to a generated request.

5.1.3 Message Containers

Message containers are simply electronic formats that allow one or more of a specific type of message to be logically grouped together. Think of this as an envelope or box. Message containers provide functionality similar to these items. Message containers allow messages that are distinct and may have different creation times to be placed into a single package for delivery. The message container can include integrity checks to ensure that all contents were received. Processing may also occur on the container level.

5.1.3.1 Summarizing Container

A summarizing container is a specialized container that holds a summary of messages. This may supersede the actual individual messages. Normally, the summarization is for a defined period, while the messages contained within the summary are for a point in time. Summarizing containers are used to simplify processing of individual messages. For example, if the total in the summarizing container matches an expected total, then the detail can be ignored. If there is not a match, the detail may be used to find the discrepancy. In another example, the individual transactions may constitute a large amount of data which cannot be practically transmitted. The summary is sent instead of the detail to provide a total for a period and the count of transactions involved.

5.1.3.2 Container of Containers

Containers of containers are specialized message containers that can include multiple message containers. In terms of the Instant Ticket product, an example lottery could send a single message with the following contents.

Root Container:

- Order Information:
  - — Order 1
  - — Order 2
- Shipment:
  - — Shipment 1
- Status:

— Inventory Item 1

— Inventory Item 2

— Inventory Item *N*

5.2 Models for Electronic Formats

This section utilizes the broad categories, defined in Section 1.2, as areas for defined electronic formats and identifies a possible product with similar data model characteristics for use in developing the electronic format.

5.2.1 Ordering

Ordering is an *ad hoc* style message. This message can be generated by either the supplier or the retailer. The core message is a specific order for inventory, but general practice is to place single or multiple orders into a container for ease of processing:

- Date/Time Stamp – point in time of the order
- Product Identifier – generally U.P.C. code
- Quantity

The order is most often generated by the retailer, or it is generated by utilizing auto order parameters set by the retailer. Upon receipt of the order, the lottery would normally assign a unique order identification number. The order would be acknowledged by returning the order information along with the assigned unique identifier.

5.2.2 Shipping

Shipping notification is from the supplier to the retailer. The core message is a shipment, but general practice is to place one or more shipments into a container for ease of processing. The typical data model includes:

- Ship to information
- Carrier information
- Date shipped
- Estimated delivery
- Packaging information

The secondary model that may be of importance is that of a serialized product. If a shipped product includes a serial number, then a receipt model (see Section 5.2.3 below) could also include serial number confirmation. This could allow pack-level tracking within a retail system that supports serialized products.

5.2.3 Receipt

Receipt is a retailer-to-supplier data message. The core message is the shipment receipt, but general practice is to place one or more receipts into a container for ease of processing. Per Section 5.2.2 above, the receipt data model should include the support of a serialized product. Typical data attributes include:

- Shipment information
- Date received
- Condition

Receipt could take the form of acknowledgement that the entire order is correct using a reference number, such as the order identification number. However, the serialized nature of the Instant Ticket product lends itself to scanning each received pack, or wholesale unit, into the retail back-office system upon receipt. This scanned receipt could then be reconciled by the back-office system and the message of receipt generated.

5.2.4 Status

Status is an *ad hoc* message type. Status can also take the form of a request. The status message is the current status of a specific inventory item from the originator's point of view. A status request is a message asking the recipient to respond with the current status of the inventory item. Typically, the request includes the originator's status. The core message is status for an individual inventory item, but typically one or more status messages are included in a container for ease of processing.

This would be a typical inventory control style of message. The typical model in retail S2S applications uses a logical inventory status message and a physical inventory status message. In the case of the logical inventory message, the message contains information about what the back-office system has on the inventory item. In the case of a physical inventory message, the message contains the actual results of a physical inventory count. The core message typically includes the following attributes:

- Date/Time Stamp – point in time of the status
- Product Identifier – generally U.P.C. code
- Optional Serial Number
- Product Status Identifier – code from a standardized list of inventory status types

Keep in mind that most lottery products are inventoried and tracked at the pack level. The message format will be flexible to support both case and ticket tracking by utilization of the U.P.C. bar code. Status would also indicate the ultimate disposition of an inventory item.

5.2.5 Validation

This is a specialized request/response message type. This message will require a near-real time-to-real time connection. This message would not utilize a container but would be sent with the expectation of an acknowledgement and a subsequent response.

A typical retail-based model would be the activation of a calling card, gift certificate, or serialized coupons. A retail Point-of-Sale (POS) system that supports this functionality could scan the U.P.C. code of the Instant Ticket indicated by the clerk as a validation. Then the POS system would prompt for an additional number, just as it would for a calling card identifier or gift certificate serial number. This number could be scanned from the Instant Ticket's lottery-based bar code. This "serial" number would be sent in a message via an established communications link to the lottery. The lottery would then return the validation status and, if applicable, the validation amount. The POS system would handle the response and could print right on the customer's receipt the validation status and/or validation amount. An additional acknowledgement from the retailer POS system of the validation message would increase integrity. There will also be a need to handle additional security features required by many lotteries. This may include the entry of a validation pin number.

Typical data attributes include:

- Request:
  - — Date/Time Stamp
  - — Product Identifier (typically U.P.C. code)
  - — Serial Number (obtained from the lottery bar code)
  - — Register Identifier
  - — Clerk Identifier
  - — Retailer Transaction ID
- Response:
  - — Date/Time Stamp
  - — Request Receipt Date/Time Stamp
  - — Serial Number (for confirmation)
  - — Retailer Transaction ID (for confirmation)
  - — Validation Status (code from standardized list)
  - — Validation Message (lottery-generated)
  - — Validation Amount (could be zero)
  - — Lottery Transaction ID

5.2.6 Pack Activation

This is a specialized request/response message type. This message will require a near-real time-to-real time connection. This message would not utilize a container but would be sent with the expectation of an acknowledgement and a subsequent response. The message would originate at the retail location.

The typical model would be a serialized product. The U.P.C. bar code on the pack would be scanned, and then the POS system would prompt for a serial number. The pack number could either be scanned from a supporting bar code or manually entered. The message format would then go to the lottery activating the pack.

5.2.7 Retailer-to-Lottery Sales Reporting

Sales reporting is from the retailer to the supplier. This sales reporting information will not include all retailers and has no additional protocols to ensure complete reporting. The use of this sales information will be largely for marketing and promotional purposes. The core message is the sale of an individual unit but will also be summarized by type and typically one or more messages are included in a container for ease of processing. Typical attributes include:

- Sale Report Core Message:
  - — Date/Time Stamp
  - — Product Identifier (typically U.P.C. code)
  - — Sale Amount
  - — Register Identifier
  - — Clerk Identifier
- Summary Container:
  - — Date/Time Begin Period
  - — Date/Time End Period
  - — Product Identifier (typically U.P.C. code)
  - — Sale Amount

5.3 U.P.C. Bar Codes

Section 4.1 covers the Best Practice requirements for content, style, size, and white space required for the U.P.C./EAN bar code. This section is designed to provide:

- General information about GS1 bar codes
- Steps for implementing GS1 bar codes
- Links to obtain a company prefix

5.3.1 General Information about GS1 Bar Codes

GS1 is the organization that maintains the U.P.C./EAN and Databar bar code standard.

General information is available at www.gs1.org.

GS1 is a worldwide organization. Country-specific information can be located here.

Information about the types of bar codes maintained by GS1 can be found here.

5.3.2 Steps for Implementing GS1 Bar Codes

GS1 has provided a guide to properly implementing product bar codes. This ten-step process can be viewed here.

5.3.3 Obtaining a Company Prefix

General information about becoming a member and obtaining a company prefix can be found here.

5.4 U.P.C. Price Sales Catalog

The U.P.C. price sales catalog, sometimes referred to as a "price book", is actually an electronic format that holds data about the products(s) associated with a U.P.C. bar code. The price sales catalog data has been transmitted in various formats, including:

- Comma-separated Values (CSV)
- Spreadsheet (Excel)
- Electronic Data Interchange (EDI)
- XML

The primary purpose of the price sales catalog is to provide the data necessary for management of a product to the retailer's back-office and/or POS systems.

Currently, the GS1 has an XML messaging format that handles synchronization of catalog items. This message format is fairly complex, designed to handle a wide variety of products and product-related information. This format continues the strong commitment by GS1 to move to XML-based messaging.

This Best Practice will focus on those attributes of the price sales catalog that relate to the Instant Ticket product. These attributes will then be included in an XML schema with supporting XSLT transformations to support the most common price catalog formats. These attributes include:

- Game Number (product ID)
- Game Name (description)
- U.P.C. Code
- Price
- Pack
- Pack Unit of Measure (UOM)
- Dimensions

- Weight

Note the use of pack in the above attribute list. This is an overlap between traditional retail inventory terminology and lottery terminology. In the case of retail terminology, the pack refers to the count of product in a pack, and the pack UOM provides the detail of that number, such as "each".

In most retail locations, the Instant Ticket product line falls into the retail category of "impulse items". The impulse products tend to fall into a couple of categories. The product most "like" the Instant Ticket product from a data model point of view would be the magazine/periodical style of retail products. These products generally have a defined retail footprint, but the make-up and exact ordering is based on the typical demographics of the product so it will be consistent with the demographics of the retail location. To adequately utilize demographic indicators, the lottery will need to research how these indicators are utilized in other products. Examples include magazines and periodicals.

Besides standard pricing information – such as description and cost – product descriptors are included to assist in retail planning and ordering. These product descriptors include the following types of attributes:

- Product Theme
- Product Target Demographic
- Product Secondary Demographic
- Product Life

The impulse type data model also supports a subscription or auto-order capability. The extended formation allows a retail location to set up basic parameters that specify the ordering thresholds. When a product complies with these thresholds, an order is automatically generated.

6 Conformance Overview

Defining conformance and creating a certification policy and program for this Best Practice is the next step in establishing an effective Best Practice. Without the associated conformance criteria and certification processes, there is no assurance that a practitioner has implemented practices according to the approved Best Practice.

Certification provides formal recognition of conformance to an industry Best Practice or Technical Standard specification, which allows:

- Suppliers and practitioners to make and substantiate clear claims of conformance to a Technical Standard or Best Practice
- Buyers to specify and successfully procure from vendors who conform to a Best Practice or provide solutions that conform to a Technical Standard

Following the approval of this Best Practice, the NSI will work with The Open Group to establish conformance criteria and define an associated Certification Program for this Best Practice. Conformance assessment is the act of determining the conformance of an implementation to a specification, or the adherence of a business operation to a best practice or process definition. There are many techniques for assessing such conformance, including the use of a standardized test method, quality assessment by industry experts, and vendors' claims of conformance made within a defined legal framework. The techniques to be used will be chosen during the process of defining the Certification Program.

Following implementation of the Certification Program, practitioners wishing to have their business practices certified as conformant to the Best Practice will be able to apply for certification of their business practices, at which time a conformance assessment will be performed.

APPENDIXES

A Requirements Checklist

Requirement	Level	Practitioner	Reference
Lotteries must require that all Instant Tickets have a U.P.C./EAN bar code meeting the minimum size requirements of 80% of the nominal size where space on the ticket will permit. If legal requirements prevent the minimum size U.P.C./EAN bar code, the GS1 Databar omni-directional bar code must be used.	Must	Lottery	4.1.1
Lotteries should require that all Instant Tickets have a U.P.C./EAN bar code meeting the nominal size requirements.	Should	Lottery	4.1.1
Instant Ticket manufacturers must be capable of producing U.P.C./EAN or Databar omni-directional bar codes on Instant Tickets meeting both the minimum and nominal size requirements.	Must	Vendors	4.1.1
Lotteries must require a quiet zone around U.P.C./EAN bar codes on all Instant Tickets meeting the minimum requirements as defined above. Lotteries should require a quiet zone of 0.25 inches on all sides of the bar code.	Must	Lottery	4.1.2
Instant Ticket manufacturers must be capable of printing U.P.C./EAN bar codes consistent with the minimum quiet zone requirements defined above, as well as the suggested requirements defined above.	Must	Manufacturers	4.1.2
The U.P.C./EAN bar code must be located on the back of the Instant Ticket in a set location that will be determined by the lottery.	Must	Lottery	4.1.3
This location should be consistent on all Instant Tickets produced by or for the lottery jurisdiction.	Should	Lottery	4.1.3
The pack U.P.C./EAN bar code must meet the content requirements defined by the NSI Technical Standard: Bar Codes for Instant Tickets in the Lottery Industry. Additionally, the pack bar code must meet the following requirements.	Must	Lottery	4.2
Lotteries must require that all Instant Ticket packs have a U.P.C./EAN bar code meeting the nominal size requirements. Lotteries should require that all Instant Ticket packs have a U.P.C./EAN bar code meeting the maximum size requirements.	Must	Lottery	4.2.1
Instant Ticket manufacturers must be capable of producing bar codes on Instant Ticket packs meeting both the nominal size and maximum size requirements.	Must	Manufacturers	4.2.1

Requirement	Level	Practitioner	Reference
Lotteries must require a quiet zone around U.P.C./EAN bar codes on all Instant Ticket packs meeting the minimum requirements as defined above. Lotteries should require a quiet zone of 0.25 inches on all sides of the bar code.	Must	Lottery	4.2.2
Instant Ticket manufacturers must be capable of printing U.P.C./EAN bar codes consistent with the minimum quiet zone requirements defined above, as well as the suggested requirements defined above.	Must	Manufacturer	4.2.2
The U.P.C./EAN bar code must be located on the face of the Instant Ticket pack in a set location that will be determined by the lottery.	Must	Lottery	4.2.3
This location should be consistent on all Instant Ticket packs produced by or for the lottery jurisdiction.	Should	Lottery	4.2.3
Lotteries must require that all coupons have a U.P.C./EAN bar code meeting the minimum size requirements of 80% of the nominal size where space on the ticket will permit. If legal requirements prevent the minimum size U.P.C./EAN bar code, the GS1 Databar omni-directional bar code must be used.	Must	Lottery	4.3
Lotteries should require that all coupons have a U.P.C./EAN bar code meeting the nominal size requirements.	Should	Lottery	4.3
Lotteries must require a quiet zone around U.P.C./EAN bar codes on all coupons meeting the minimum requirements as defined above.	Must	Lottery	4.3
Lotteries should require a quiet zone of 0.25 inches on all sides of the bar code.	Should	Lottery	4.3
Lotteries must provide a current U.P.C. price sales catalog containing all Instant Tickets offered at the point in time of the request. This U.P.C. price sales catalog must meet the XML format defined in Appendix C.	Must	Lottery	4.4.1
The U.P.C. price sales catalog must be available to retailers upon request.	Must	Lottery	4.4.1
Lotteries should provide the U.P.C. price sales catalog on a web site that can be accessed by retailers.	Should	Lottery	4.4.1
Lotteries must provide an update to the U.P.C. price sales catalog meeting the XML format defined in Appendix C as new Instant Tickets are introduced into the market.	Must	Lottery	4.4.1
Lotteries should provide these updates on a web site that can be accessed by retailers. Updates should be made available ten (10) business days prior to the release of new products.	Should	Lottery	4.4.1
Vendor Instant Ticket support systems must be capable of generating a current U.P.C. price sales catalog containing all Instant Tickets offered at the point in time of the request.	Must	Vendor	4.4.1
This U.P.C. price sales catalog must meet the XML format defined in Appendix C.	Must	Vendor	4.4.1
The U.P.C. price sales catalog must be available to retailers upon request.	Must	Vendor	4.4.1
Vendor Instant Ticket support systems must provide an update to the U.P.C. price sales catalog meeting the XML format defined in Appendix C as new Instant Tickets are introduced into the market.	Must	Vendor	4.4.1

Requirement	Level	Practitioner	Reference
Lotteries should provide the enhanced optional elements of the price sales catalog as defined by the XML schema in Appendix C.	Should	Lottery	4.4.2
Vendors of Instant Ticket support systems must provide the enhanced optional elements of the price sales catalog as defined by the XML schema in Appendix C.	Must	Vendor	4.4.2
Lotteries that close games should utilize the extended attributes of the price sales catalog defined in Section C.3.1 to communicate game closures to retail systems.	Should	Lottery	4.4.3
Instant Ticket management system vendors must support the extended attributes of the price sales catalog defined in Section C.3.1 to communicate game closures to retail systems.	Must	Vendors	4.4.3
Lotteries must be capable of accepting and responding to the core electronic messaging formats.	Must	Lottery	4.5
Lotteries must support all mandatory elements defined in the core electronic messaging formats; and should implement the optional elements.	Must	Lottery	4.5
Lotteries should have the capability of accepting and responding to the core message formats in an automated manner.	Should	Lottery	4.5
Vendor Instant Ticket support systems must be capable of supporting automated acceptance and response of core electronic messaging formats.	Must	Vendor	4.5
Vendors must support all mandatory elements defined in the core electronic messaging formats and should support all optional elements.	Must	Vendor	4.5
Lotteries may implement the enhanced message formats.	May	Lottery	4.6
Vendors of Instant Ticket management systems should provide the capacity to implement the enhanced messaging formats, including the capability of real-time or near-real-time communications.	Should	Vendor	4.6
Retailers should provide the sales data from their POS system to lotteries for marketing analysis.	Should	Retailer	4.7

B Documentation Checklist

This appendix summarizes the various documentation responsibilities of each party.

Under Responsibility, the following terms are used with these associated meanings:

Sole	For documents in which the specified party has sole responsibility for producing the document in accordance with the requirements of this Best Practice.
Primary	For documents that are to be authored by both parties, this identifies the party with the lead authoring role, and who has overall responsibility for producing the document in accordance with the requirements of this Best Practice.
Secondary	For documents that are to be authored by both parties, this identifies the party that will work with the lead author to produce the document. The Secondary role has the responsibility to provide inputs, author portions of the document, and collaborate with the lead author to ensure successful completion of the document.

Lottery Requirements

Item to be documented	Responsibility	Comments

Vendor Requirements

Item to be documented	Responsibility	Comments

C XML Schemas

C.1 Schema Approach

C.1.1 Data Dictionary Schema

This schema will be included in the Root Element schema. The Data Dictionary schema is an alphabetically sorted list of data attributes defined as XML simple elements. These elements contain structure parameters where appropriate and are annotated to provide definitions of the represented attribute.

C.1.2 Structure Schema

This schema will be included in the Root Element schema. The Structure schema is an alphabetically sorted list of logical data structures defined as XML complex elements. The most common form is an XML sequence that logically groups data attributes defined in the Data Dictionary into representations of entities. These structures are annotated to define the entity that is represented.

C.1.3 Root Elements Schema

This is the main schema that references both the Data Dictionary and Structure schemas by inclusion. This schema defines the XML complex element or elements that are used to instantiate an actual XML file. The contents of the complex elements are most often Structures that are referenced by an XML choice or sequence.

C.2 Message Containers

C.2.1 Envelope

Element envelope

properties	content complex
children	**nsi:lotteryTransactionIdentifier nsi:retailerTransactionIdentifier nsi:dateTimeStamp nsi:envUserId nsi:envPassword nsi:lotteryRetailerId nsi:retailerStoreId nsi:envTo nsi:envFrom nsi:message**
annotation	documentation The envelope is the primary container of MIT messages.
source	<xs:element name="envelope">

```
<xs:annotation>
 <xs:documentation>The envelope is the primary container of MIT messages. </xs:documentation>
</xs:annotation>
<xs:complexType>
 <xs:sequence>
  <xs:choice>
   <xs:element ref="nsi:lotteryTransactionIdentifier" minOccurs="0"/>
   <xs:element ref="nsi:retailerTransactionIdentifier" minOccurs="0"/>
  </xs:choice>
  <xs:element ref="nsi:dateTimeStamp"/>
  <xs:element ref="nsi:envUserId"/>
  <xs:element ref="nsi:envPassword"/>
  <xs:element ref="nsi:lotteryRetailerId"/>
  <xs:element ref="nsi:retailerStoreId" minOccurs="0"/>
  <xs:element ref="nsi:envTo" minOccurs="0"/>
  <xs:element ref="nsi:envFrom" minOccurs="0"/>
  <xs:element ref="nsi:message" maxOccurs="unbounded"/>
 </xs:sequence>
</xs:complexType>
</xs:element>
```

C.2.2 Message

Element nsi:message

properties	content complex
children	**nsi:messageDocumentIdentifier** **nsi:messageDocumentCommand** **nsi:order** **nsi:packActivation** **nsi:receipt** **nsi:shipment** **nsi:status** **nsi:upcPriceSalesCatalog** **nsi:upcPriceSalesCatalogItem** **nsi:validationRequest** **nsi:validationResponse**
used by	element **envelope**
annotation	documentation This entity is the primary object in the envelope or root object

source

```
<xs:element name="message">
 <xs:annotation>
  <xs:documentation>This entity is the primary object in the envelope or root
object.</xs:documentation>
 </xs:annotation>
 <xs:complexType>
  <xs:sequence>
   <xs:element ref="nsi:messageDocumentIdentifier"/>
   <xs:element ref="nsi:messageDocumentCommand"/>
   <xs:choice>
    <xs:element ref="nsi:order" minOccurs="0"/>
    <xs:element ref="nsi:packActivation" minOccurs="0"/>
    <xs:element ref="nsi:receipt" minOccurs="0"/>
    <xs:element ref="nsi:shipment" minOccurs="0"/>
    <xs:element ref="nsi:status" minOccurs="0"/>
    <xs:element ref="nsi:upcPriceSalesCatalog" minOccurs="0"/>
    <xs:element ref="nsi:upcPriceSalesCatalogItem" minOccurs="0"/>
    <xs:element ref="nsi:validationRequest" minOccurs="0"/>
    <xs:element ref="nsi:validationResponse" minOccurs="0"/>
   </xs:choice>
  </xs:sequence>
 </xs:complexType>
</xs:element>
```

C.3 U.P.C./EAN Support Messages

C.3.1 Price Sales Catalog

Element nsi:upcPriceSalesCatalog

properties	content complex
children	**nsi:upcPriceSalesCatalogItem**
used by	element **nsi:message**
annotation	documentation This entity structure represents a listing of several items for a U.P.C. price sales catalog.
source	<xs:element name="upcPriceSalesCatalog"> <xs:annotation> <xs:documentation>This entity structure represents a listing of several items for a U.P.C. price sales catalog.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="nsi:upcPriceSalesCatalogItem" maxOccurs="unbounded"/> </xs:sequence> </xs:complexType> </xs:element>

C.3.2 Price Sales Item

Element nsi:upcPriceSalesCatalogItem

properties	content complex
children	**nsi:dateTimeStamp** **nsi:upcNumber** **nsi:productDescription** **nsi:productPrice** **nsi:productCount** **nsi:productCountUOM** **nsi:productManufacturerId** **nsi:productDimensions** **nsi:productWeight** **nsi:productWeightUOM** **nsi:productPlannedLife** **nsi:productTheme** **nsi:productDemographicPrimary** **nsi:productDemographicSecondary** **nsi:productStartDate** **nsi:productCloseDate**
used by	elements **nsi:message** **nsi:upcPriceSalesCatalog**
annotation	documentation This entity structure represents a single item in a U.P.C. price sales catalog.
source	<xs:element name="upcPriceSalesCatalogItem"> <xs:annotation> <xs:documentation>This entity structure represents a single item in a U.P.C. Price Sales Catalog.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="nsi:dateTimeStamp"/> <xs:element ref="nsi:upcNumber"/> <xs:element ref="nsi:productDescription"/> <xs:element ref="nsi:productPrice"/> <xs:element ref="nsi:productCount"/> <xs:element ref="nsi:productCountUOM"/> <xs:element ref="nsi:productManufacturerId" minOccurs="0"/>

```
      <xs:element ref="nsi:productDimensions" minOccurs="0"/>
      <xs:element ref="nsi:productWeight" minOccurs="0"/>
      <xs:element ref="nsi:productWeightUOM" minOccurs="0"/>
      <xs:element ref="nsi:productPlannedLife" minOccurs="0"/>
      <xs:element ref="nsi:productTheme"/>
      <xs:element ref="nsi:productDemographicPrimary" minOccurs="0"/>
      <xs:element ref="nsi:productDemographicSecondary" minOccurs="0"/>
      <xs:element ref="nsi:productStartDate" minOccurs="0"/>
      <xs:element ref="nsi:productCloseDate" minOccurs="0"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

C.4 Core Messages

C.4.1 Order

Element nsi:order

properties	content complex
children	**nsi:orderIdentificationNumber** **nsi:orderItem** **nsi:accountingLineItem**
used by	elements **nsi:message** **nsi:receipt** **nsi:shipment**
annotation	documentation This entity structure represents an order product and will be used in a message to order Instant Ticket products. The addition of an accountingLineItem at the end of the sequence holds the total for all line items in the order. The accountingLineItemDetail should reflect a message showing total order.
source	<xs:element name="order"> <xs:annotation> <xs:documentation>This entity structure represents an order product and will be used in a message to order Instant Ticket products. The addition of an accountingLineItem at the end of the sequence holds the total for all line items in the order. The accountingLineItemDetail should reflect a message showing total order.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="nsi:orderIdentificationNumber"/> <xs:element ref="nsi:orderItem" maxOccurs="unbounded"/> <xs:element ref="nsi:accountingLineItem"/> </xs:sequence> </xs:complexType> </xs:element>

C.4.2 Shipment

Element nsi:shipment

properties	content complex
children	**nsi:order** **nsi:shipmentDate** **nsi:shipmentTrackingNumber** **nsi:shipmentEstimatedDelivery** **nsi:shipmentPackageCount** **nsi:shipmentFrom** **nsi:shipmentCarrier** **nsi:shipmentTo**
used by	element **nsi:message**

annotation	documentation This entity represents the shipment information for ordered product.
source	<xs:element name="shipment"> <xs:annotation> <xs:documentation>This entity represents the shipment information for ordered product.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="nsi:order"/> <xs:element ref="nsi:shipmentDate"/> <xs:element ref="nsi:shipmentTrackingNumber"/> <xs:element ref="nsi:shipmentEstimatedDelivery"/> <xs:element ref="nsi:shipmentPackageCount"/> <xs:element ref="nsi:shipmentFrom"/> <xs:element ref="nsi:shipmentCarrier"/> <xs:element ref="nsi:shipmentTo"/> </xs:sequence> </xs:complexType> </xs:element>

C.4.3 Receipt

Element nsi:receipt

properties	content complex
children	**nsi:order** **nsi:receiptDate** **nsi:receiptCondition** **nsi:receiptComment**
used by	element **nsi:message**
annotation	documentation This entity holds the confirmation of receipt for a shipment. This message would be sent from the retailer to the lottery once a shipment is received.
source	<xs:element name="receipt"> <xs:annotation> <xs:documentation>This entity holds the confirmation of receipt for a shipment. This message would be sent from the retailer to the lottery once a shipment is received.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="nsi:order"/> <xs:element ref="nsi:receiptDate"/> <xs:element ref="nsi:receiptCondition"/> <xs:element ref="nsi:receiptComment" minOccurs="0"/> </xs:sequence> </xs:complexType> </xs:element>

C.4.4 Status

Element nsi:status

properties	content complex
children	**nsi:upcNumber** **nsi:orderIdentificationNumber** **nsi:serialNumber** **nsi:statusDateTime**

	nsi:statusDetail **nsi:statusComment**
used by	element **nsi:message**
annotation	documentation This entity holds the confirmation about the status of a pack or ticket from the originator's point of view. Upon receipt of this message, the recipient would respond with their status for the pack or ticket as well.
source	<xs:element name="status"> <xs:annotation> <xs:documentation>This entity holds the confirmation about the status of a pack or ticket from the originator's point of view. Upon receipt of this message, the recipient would respond with their status for the pack or ticket as well.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="nsi:upcNumber"/> <xs:element ref="nsi:orderIdentificationNumber"/> <xs:element ref="nsi:serialNumber"/> <xs:element ref="nsi:statusDateTime"/> <xs:element ref="nsi:statusDetail"/> <xs:element ref="nsi:statusComment" minOccurs="0"/> </xs:sequence> </xs:complexType> </xs:element>

C.5 Enhanced Messages

C.5.1 Validation

Element nsi:validationRequest

properties	content complex
children	**nsi:dateTimeStamp** **nsi:retailerTransactionIdentifier** **nsi:upcNumber** **nsi:serialNumber** **nsi:retailerClerkIdentifier** **nsi:retailerRegisterIdentifier**
used by	element **nsi:message**
annotation	documentation This entity is part of a message set that allows for validation of Instant Tickets via XML messages. This is the request, and will be generated by a retailer based on obtaining the ticket information via a POS scan of the ticket bar codes.
source	<xs:element name="validationRequest"> <xs:annotation> <xs:documentation>This entity is part of a message set that allows for validation of Instant Tickets via XML messages. This is the request, and will be generated by a retailer based on obtaining the ticket information via a POS scan of the ticket bar codes.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="nsi:dateTimeStamp"/> <xs:element ref="nsi:retailerTransactionIdentifier"/> <xs:element ref="nsi:upcNumber"/> <xs:element ref="nsi:serialNumber"/> <xs:element ref="nsi:retailerClerkIdentifier" minOccurs="0"/> <xs:element ref="nsi:retailerRegisterIdentifier" minOccurs="0"/> </xs:sequence> </xs:complexType>

	</xs:element>

Element nsi:validationResponse

properties	content complex
children	**nsi:dateTimeStamp** **nsi:lotteryTransactionIdentifier** **nsi:retailerTransactionIdentifier** **nsi:upcNumber** **nsi:serialNumber** **nsi:validationStatus** **nsi:validationMessage** **nsi:validationAmount**
used by	element **nsi:message**
annotation	documentation This entity is part of a message set that allows for validation of Instant Tickets via XML messages. This is the response, and will be generated by a lottery based on the ticket information received from the retailer.
source	<xs:element name="validationResponse"> <xs:annotation> <xs:documentation>This entity is part of a message set that allows for validation of Instant Tickets via XML messages. This is the response, and will be generated by a lottery based on the ticket information received from the retailer.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="nsi:dateTimeStamp"/> <xs:element ref="nsi:lotteryTransactionIdentifier"/> <xs:element ref="nsi:retailerTransactionIdentifier"/> <xs:element ref="nsi:upcNumber"/> <xs:element ref="nsi:serialNumber"/> <xs:element ref="nsi:validationStatus"/> <xs:element ref="nsi:validationMessage"/> <xs:element ref="nsi:validationAmount"/> </xs:sequence> </xs:complexType> </xs:element>

C.5.2 Pack Activation

Element nsi:packActivation

properties	content complex
children	**nsi:dateTimeStamp** **nsi:retailerTransactionIdentifier** **nsi:lotteryTransactionIdentifier** **nsi:upcNumber** **nsi:serialNumber** **nsi:retailerClerkIdentifier** **nsi:retailerRegisterIdentifier**
used by	element **nsi:message**
annotation	documentation This entity is a message that allows for activation of an Instant Ticket pack via XML messages. This message is used for both the request and the response. The retailer will generate the request, and upon receipt and successful processing, the lottery would populate the lotteryTransactionIdentifier attribute and return the original information back to the retailer.
source	<xs:element name="packActivation"> <xs:annotation> <xs:documentation>This entity is a message that allows for activation of an Instant Ticket pack via XML messages. This message is used for both the request and the response. The retailer will generate the request, and upon receipt and successful processing, the lottery would populate the lotteryTransactionIdentifier attribute and return the original information back to the

	retailer.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="nsi:dateTimeStamp"/> <xs:element ref="nsi:retailerTransactionIdentifier"/> <xs:element ref="nsi:lotteryTransactionIdentifier" minOccurs="0"/> <xs:element ref="nsi:upcNumber"/> <xs:element ref="nsi:serialNumber"/> <xs:element ref="nsi:retailerClerkIdentifier" minOccurs="0"/> <xs:element ref="nsi:retailerRegisterIdentifier" minOccurs="0"/> </xs:sequence> </xs:complexType> </xs:element>

C.6 Sales Reporting

C.6.1 Summary

Element nsi:salesReportSummary

properties	content complex
children	**nsi:salesReportSumaryStartDateTime nsi:salesReportSummaryEndDateTime nsi:upcNumber nsi:salesReportAmount**
annotation	documentation This entity holds the sales for a product list over a period of time.
source	<xs:element name="salesReportSummary"> <xs:annotation> <xs:documentation>This entity holds the sales for a product list over a period of time.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="nsi:salesReportSumaryStartDateTime"/> <xs:element ref="nsi:salesReportSummaryEndDateTime"/> <xs:sequence maxOccurs="unbounded"> <xs:element ref="nsi:upcNumber"/> <xs:element ref="nsi:salesReportAmount"/> </xs:sequence> </xs:sequence> </xs:complexType> </xs:element>

C.6.2 Detailed

Element nsi:salesReportDetailed

properties	content complex
children	**nsi:upcNumber nsi:salesReportDateTime nsi:salesReportAmount nsi:retailerClerkIdentifier nsi:retailerRegisterIdentifier**
annotation	documentation

	This entity holds the sales detail for a product list at a point in time.
source	<xs:element name="salesReportDetailed"> <xs:annotation> <xs:documentation>This entity holds the sales detail for a product list at a point in time.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence maxOccurs="unbounded"> <xs:element ref="nsi:upcNumber"/> <xs:element ref="nsi:salesReportDateTime"/> <xs:element ref="nsi:salesReportAmount"/> <xs:element ref="nsi:retailerClerkIdentifier" minOccurs="0"/> <xs:element ref="nsi:retailerRegisterIdentifier" minOccurs="0"/> </xs:sequence> </xs:complexType> </xs:element>

C.7 Supporting Entity Structures

C.7.1 Index

Elements
accountingLineItem
address
contactInformation
employee
envFrom
envTo
orderItem
organization
packActivation
productDimensions
shipmentCarrier
shipmentFrom
shipmentTo

C.7.2 Entities

Element nsi:accountingLineItem

properties	content complex
children	**nsi:accountingLineItemQuantityOrdered** **nsi:accountingLineItemQuantityShipped** **nsi:accountingLineItemDetail** **nsi:serialNumber** **nsi:accountingLineItemUOM** **nsi:isoCurrency** **nsi:accountingLineItemUnitCost** **nsi:accountingLineItemCostExtension**
used by	elements **nsi:order** **nsi:orderItem**
annotation	documentation This structure is a sub-entity used within other entities. This holds the information for a single line item financial transaction. The format should be from a supplier point of view. In the case of lottery use, the lottery would be the supplier. Thus a charge to a retailer would be positive or a debit transaction, while a refund or credit would be represented as a negative number.
source	<xs:element name="accountingLineItem"> <xs:annotation> <xs:documentation>This structure is a sub-entity used within other entities. This holds the information

	for a single line item financial transaction. The format should be from a supplier point of view. In the case of lottery use, the lottery would be the supplier. Thus a charge to a retailer would be positive or a debit transaction, while a refund or credit would be represented as a negative number.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="nsi:accountingLineItemQuantityOrdered"/> <xs:element ref="nsi:accountingLineItemQuantityShipped"/> <xs:element ref="nsi:accountingLineItemDetail" minOccurs="0"/> <xs:element ref="nsi:serialNumber" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="nsi:accountingLineItemUOM"/> <xs:element ref="nsi:isoCurrency"/> <xs:element ref="nsi:accountingLineItemUnitCost"/> <xs:element ref="nsi:accountingLineItemCostExtension"/> </xs:sequence> </xs:complexType> </xs:element>

Element nsi:address

properties	content complex
children	**nsi:addressType** **nsi:addressStreet** **nsi:addressUnitNumber** **nsi:addressStreetExtended** **nsi:addressCity** **nsi:addressStateProvince** **nsi:addressPostalCode** **nsi:addressCountry**
used by	element **nsi:organization**
annotation	documentation This structure holds address information for use in other entities.
source	<xs:element name="address"> <xs:annotation> <xs:documentation>This structure holds address information for use in other entities.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="nsi:addressType"/> <xs:element ref="nsi:addressStreet"/> <xs:element ref="nsi:addressUnitNumber" minOccurs="0"/> <xs:element ref="nsi:addressStreetExtended" minOccurs="0"/> <xs:element ref="nsi:addressCity"/> <xs:element ref="nsi:addressStateProvince"/> <xs:element ref="nsi:addressPostalCode"/> <xs:element ref="nsi:addressCountry" minOccurs="0"/> </xs:sequence> </xs:complexType> </xs:element>

Element nsi:contactInformation

properties	content complex
children	**nsi:contactPhoneNumber** **nsi:contactPhoneType** **nsi:contactEmail** **nsi:contactEmailType** **nsi:contactWebPage** **nsi:contactWebPageType**
used by	elements **nsi:employee** **nsi:organization**
annotation	documentation This entity holds contact information for use in other entities, such as person, organization, etc. Contact information includes phone number, email, and web page information.

source	<xs:element name="contactInformation"> <xs:annotation> <xs:documentation>This entity holds contact information for use in other entities, such as person, organization, etc. Contact information includes phone number, email, and web page information.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:sequence minOccurs="0" maxOccurs="5"> <xs:element ref="nsi:contactPhoneNumber"/> <xs:element ref="nsi:contactPhoneType"/> </xs:sequence> <xs:sequence minOccurs="0" maxOccurs="5"> <xs:element ref="nsi:contactEmail"/> <xs:element ref="nsi:contactEmailType"/> </xs:sequence> <xs:sequence minOccurs="0" maxOccurs="5"> <xs:element ref="nsi:contactWebPage"/> <xs:element ref="nsi:contactWebPageType"/> </xs:sequence> </xs:sequence> </xs:complexType> </xs:element>

Element nsi:employee

properties	content complex
children	**nsi:employeeType** **nsi:employeeID** **nsi:employeeFirstName** **nsi:employeeLastName** **nsi:employeeTitle** **nsi:contactInformation**
used by	element **nsi:organization**
annotation	documentation This entity contains information about an employee of an organization.
source	<xs:element name="employee"> <xs:annotation> <xs:documentation>This entity contains information about an employee of an organization.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="nsi:employeeType"/> <xs:element ref="nsi:employeeID"/> <xs:element ref="nsi:employeeFirstName"/> <xs:element ref="nsi:employeeLastName"/> <xs:element ref="nsi:employeeTitle" minOccurs="0"/> <xs:element ref="nsi:contactInformation"/> </xs:sequence> </xs:complexType> </xs:element>

Element nsi:envFrom

properties	content complex
children	**nsi:duns** **nsi:gln** **nsi:organization**
used by	element **envelope**

annotation	documentation This entity contains the information about the originator of the messages contained in an envelope.
source	<xs:element name="envFrom"> <xs:annotation> <xs:documentation>This entity contains the information about the originator of the messages contained in an envelope.</xs:documentation> </xs:annotation> <xs:complexType> <xs:choice maxOccurs="3"> <xs:element ref="nsi:duns" minOccurs="0"/> <xs:element ref="nsi:gln" minOccurs="0"/> <xs:element ref="nsi:organization" minOccurs="0"/> </xs:choice> </xs:complexType> </xs:element>

Element nsi:envTo

properties	content complex
children	**nsi:duns** **nsi:gln** **nsi:organization**
used by	element **envelope**
annotation	documentation This entity contains the information about the destination of the messages contained in an envelope.
source	<xs:element name="envTo"> <xs:annotation> <xs:documentation>This entity contains the information about the destination of the messages contained in an envelope.</xs:documentation> </xs:annotation> <xs:complexType> <xs:choice maxOccurs="3"> <xs:element ref="nsi:duns" minOccurs="0"/> <xs:element ref="nsi:gln" minOccurs="0"/> <xs:element ref="nsi:organization" minOccurs="0"/> </xs:choice> </xs:complexType> </xs:element>

Element nsi:orderItem

properties	content complex
children	**nsi:dateTimeStamp** **nsi:upcNumber** **nsi:accountingLineItem**
used by	element **nsi:order**
annotation	documentation This entity structure represents an order for a single product for use in the order container that will be used in a message to order Instant Ticket products.
source	<xs:element name="orderItem"> <xs:annotation> <xs:documentation>This entity structure represents an order for a single product for use in the order container that will be used in a message to order Instant Ticket products.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence>

	<xs:element ref="nsi:dateTimeStamp"/> <xs:element ref="nsi:upcNumber"/> <xs:element ref="nsi:accountingLineItem"/> </xs:sequence> </xs:complexType> </xs:element>

Element nsi:organization

properties	content complex
children	**nsi:organizationType nsi:organizationIdenificationNumber nsi:organizationName nsi:address nsi:contactInformation nsi:employee**
used by	elements **nsi:envFrom nsi:envTo nsi:shipmentCarrier nsi:shipmentFrom**
annotation	documentation This entity contains information about an organization which may be a retailer, a lottery, or another organization that is part of the distribution channel such as a shipper.
source	<xs:element name="organization"> <xs:annotation> <xs:documentation>This entity contains information about an organization which may be a retailer, a lottery, or another organization that is part of the distribution channel such as a shipper.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="nsi:organizationType"/> <xs:element ref="nsi:organizationIdenificationNumber"/> <xs:element ref="nsi:organizationName"/> <xs:element ref="nsi:address" minOccurs="0" maxOccurs="5"/> <xs:element ref="nsi:contactInformation" minOccurs="0"/> <xs:element ref="nsi:employee" minOccurs="0"/> </xs:sequence> </xs:complexType> </xs:element>

Element nsi:productDimensions

properties	content complex
children	**nsi:productDimensionsWidth nsi:productDimensionsHeight nsi:productDimensionsDepth nsi:productDimensionsUOM**
used by	element **nsi:upcPriceSalesCatalogItem**
annotation	documentation This entity structure is a sub-structure representing the dimensions of a single item in a U.P.C. price sales catalog. This entity is an optional part of a price sales catalog item.
source	<xs:element name="productDimensions"> <xs:annotation> <xs:documentation>This entity structure is a sub-structure representing the dimensions of a single item in a U.P.C. price sales catalog. This entity is an optional part of a price sales catalog item.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="nsi:productDimensionsWidth"/> <xs:element ref="nsi:productDimensionsHeight"/>

	<xs:element ref="nsi:productDimensionsDepth"/> <xs:element ref="nsi:productDimensionsUOM"/> </xs:sequence> </xs:complexType> </xs:element>

Element nsi:shipmentCarrier

properties	content complex
children	**nsi:organization**
used by	element **nsi:shipment**
annotation	documentation This entity is a sub-entity that designates the organization that is the shipping carrier of a shipment.
source	<xs:element name="shipmentCarrier"> <xs:annotation> <xs:documentation>This entity is a sub-entity that designates the organization that is the shipping carrier of a shipment.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="nsi:organization"/> </xs:sequence> </xs:complexType> </xs:element>

Element nsi:shipmentFrom

properties	content complex
children	**nsi:organization**
used by	element **nsi:shipment**
annotation	documentation This entity is a sub-entity that designates the lottery which is shipping the product.
source	<xs:element name="shipmentFrom"> <xs:annotation> <xs:documentation>This entity is a sub-entity that designates the lottery which is shipping the product.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="nsi:organization"/> </xs:sequence> </xs:complexType> </xs:element>

Element nsi:shipmentTo

used by	element **nsi:shipment**
annotation	documentation This entity is a sub-entity that designates the retail location to which the shipment was sent.

source	<xs:element name="shipmentTo"> <xs:annotation> <xs:documentation>This entity is a sub-entity that designates the retail location to which the shipment was sent.</xs:documentation> </xs:annotation> </xs:element>

C.8 Data Dictionary

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C.8.2 Definitions

Element nsi:accountingLineItemCostExtension

type	**xs:decimal**
used by	element **nsi:accountingLineItem**
annotation	documentation This attribute is part of a sub-entity that represents an accounting line item for use in financial transactions and contains the extended cost of a line item.

Element nsi:accountingLineItemDetail

type	**xs:string**
used by	element **nsi:accountingLineItem**
annotation	documentation This attribute is part of a sub-entity that represents an accounting line item for use in financial transactions and contains an optional description of the activity represented by a line item.

Element nsi:accountingLineItemQuantityOrdered

type	**xs:integer**
used by	element **nsi:accountingLineItem**

annotation	documentation This attribute is part of a sub-entity that represents an accounting line item for use in financial transactions and contains the quantity ordered of a line item.

Element nsi:accountingLineItemQuantityShipped

type	**xs:integer**
used by	element **nsi:accountingLineItem**
annotation	documentation This attribute is part of a sub-entity that represents an accounting line item for use in financial transactions and contains the quantity shipped of a line item.

Element nsi:accountingLineItemUnitCost

type	**xs:decimal**
used by	element **nsi:accountingLineItem**
annotation	documentation This attribute is part of a sub-entity that represents an accounting line item for use in financial transactions and contains the unit cost of a line item.

Element nsi:accountingLineItemUOM

type	restriction of **xs:string**
used by	element **nsi:accountingLineItem**
facets	enumeration Book enumeration Pack enumeration Ticket
annotation	documentation This attribute is part of a sub-entity that represents an accounting line item for use in financial transactions and contains the Unit of Measure (UOM) of a line item. For management of Instant Tickets, options would include pack or book depending on lottery terminology and ticket.

Element nsi:addressCity

type	restriction of **xs:string**
used by	element **nsi:address**
facets	minLength 0 maxLength 27
annotation	documentation This attribute is part of the address entity. This will hold the city of the addressee.

Element nsi:addressCountry

type	restriction of **xs:string**

properties	content simple default US
used by	element **nsi:address**
facets	enumeration AU enumeration BE enumeration CA enumeration CN enumeration DK enumeration FI enumeration FR enumeration DE enumeration GR enumeration IS enumeration IN enumeration IL enumeration JP enumeration AN enumeration NZ enumeration NO enumeration RU enumeration SG enumeration ZA enumeration ES enumeration CH enumeration GB enumeration US
annotation	documentation This attribute is part of the address entity. This attribute is optional and will hold the country information for the addressee.

Element nsi:addressPostalCode

type	restriction of **xs:string**
used by	element **nsi:address**
facets	minLength 0 maxLength 10
annotation	documentation This attribute is part of the address entity. This will hold the postal code of the addressee.

Element nsi:addressStateProvince

type	restriction of **xs:string**
used by	element **nsi:address**
facets	enumeration AL enumeration AR enumeration AK enumeration AZ enumeration CA enumeration CO enumeration CT enumeration DE enumeration FL enumeration GA

	enumeration HI enumeration IA enumeration ID enumeration IL enumeration IN enumeration MI enumeration KS enumeration KY enumeration LA enumeration MA enumeration MD enumeration ME enumeration MI enumeration MN enumeration MO enumeration MS enumeration MT enumeration NC enumeration ND enumeration NE enumeration NH enumeration NJ enumeration NM enumeration NV enumeration NY enumeration OH enumeration OK enumeration OR enumeration PA enumeration RI enumeration SC enumeration SD enumeration TN enumeration TX enumeration UT enumeration VA enumeration VT enumeration WA enumeration WI enumeration WV enumeration WY enumeration AB enumeration BC enumeration MB enumeration NB enumeration NL enumeration NS enumeration ON enumeration PE enumeration QC enumeration SK enumeration NT enumeration NU enumeration YT
annotation	documentation This attribute is part of the address entity. This will hold the state or province of the addressee. This will commonly be an abbreviation, but may be the full state or province name.

Element nsi:addressStreet

type	restriction of **xs:string**
used by	element **nsi:address**

facets	minLength 0 maxLength 35
annotation	documentation This attribute is part of the address entity. This will hold the street information, commonly including a building number, a street name, and extended information about the street such as directional information (i.e., SE, NE, NW, E, etc.) and a designation such as ST, RD, Ave, etc.

Element nsi:addressStreetExtended

type	restriction of **xs:string**
used by	element **nsi:address**
facets	minLength 0 maxLength 35
annotation	documentation This attribute is part of the address entity. This attribute is optional and will hold a second street line of the addressee.

Element nsi:addressType

type	restriction of **xs:string**
properties	content simple default Primary
used by	element **nsi:address**
facets	enumeration Primary enumeration Alternate enumeration Branch enumeration Home enumeration Headquarters enumeration ShipTo enumeration Billing enumeration Store
annotation	documentation This attribute is part of the address entity. This attribute holds information about an address type. This is an element derived by restriction. The enumerated options are extensible by the user; however, the default of Primary must remain in the enumeration list.

Element nsi:addressUnitNumber

type	restriction of **xs:string**
used by	element **nsi:address**
facets	minLength 0 maxLength 10
annotation	documentation This attribute is part of the address entity. This attribute is optional and will hold a unit, apartment, building, office number, or similar extended address number of the addressee.

Element nsi:contactEmail

type	restriction of **xs:string**
used by	element **nsi:contactInformation**
facets	minLength 0 maxLength 75
annotation	documentation This attribute is part of the contact entity. This attribute holds information about a contact email address. There may be multiple email addresses, so the email address type will allow assignment of a differentiating type attribute. Default assumes one email address with a type of primary.

Element nsi:contactEmailType

type	restriction of **xs:string**
properties	content simple default Primary
used by	element **nsi:contactInformation**
facets	enumeration Primary enumeration Alternate enumeration Business enumeration Personal
annotation	documentation This attribute is part of the contact entity. This attribute holds information about a contact email type. This is an element derived by restriction. The enumerated options are extensible by the user; however, the default of Primary must remain in the enumeration list.

Element nsi:contactPhoneNumber

type	restriction of **xs:string**
used by	element **nsi:contactInformation**
annotation	documentation This attribute is part of the contact entity. This attribute holds information about a contact phone number. There may be multiple phone numbers, so the phone number type will allow assignment of a differentiating type attribute. Default assumes one phone number with a type of primary.

Element nsi:contactPhoneType

type	restriction of **xs:string**
properties	content simple default Primary
used by	element **nsi:contactInformation**
facets	enumeration Primary enumeration Alternate enumeration Office enumeration Main enumeration Mobile enumeration Home

annotation	documentation This attribute is part of the contact entity. This attribute holds information about a contact phone number type. This is an element derived by restriction. The enumerated options are extensible by the user; however, the default of Primary must remain in the enumeration list.

Element nsi:contactWebPage

type	restriction of **xs:string**
used by	element **nsi:contactInformation**
annotation	documentation This attribute is part of the contact entity. This attribute holds information about a contact web page. There may be multiple web pages, so the web page type will allow assignment of a differentiating type attribute. Default assumes one web page with a type of Primary.

Element nsi:contactWebPageType

type	restriction of **xs:string**
properties	content simple default Primary
used by	element **nsi:contactInformation**
facets	enumeration Primary enumeration Alternate enumeration Personal enumeration Company
annotation	documentation This attribute is part of the contact entity. This attribute holds information about a contact web page type. This is an element derived by restriction. The enumerated options are extensible by the user; however, the default of Primary must remain in the enumeration list.

Element nsi:dateTimeStamp

type	**xs:dateTime**
used by	elements **envelope** **nsi:orderItem** **nsi:packActivation** **nsi:upcPriceSalesCatalogItem** **nsi:validationRequest** **nsi:validationResponse**
annotation	documentation This is an attribute used in many entities that contains an XML date and time stamp. This attribute marks both a date and a time down to seconds for a message event. The format appears as 2001-12-17T09:30:47.08.

Element nsi:duns

type	restriction of **xs:string**
used by	elements **nsi:envFrom** **nsi:envTo**
facets	minLength 9 maxLength 13
annotation	documentation

	This attribute holds the DUNS, a nine-digit number assigned by Dun and Bradstreet, or the DUNS plus 4, which adds four additional digits that are assigned by the user to uniquely identify a location, such as a store location.

Element nsi:employeeFirstName

type	restriction of **xs:string**
used by	element **nsi:employee**
facets	minLength 0 maxLength 20
annotation	documentation This attribute is part of the employee entity. This attribute holds the person's first name.

Element nsi:employeeID

type	restriction of **xs:string**
used by	element **nsi:employee**
annotation	documentation This attribute uniquely identifies an employee of an organization.

Element nsi:employeeLastName

type	restriction of **xs:string**
used by	element **nsi:employee**
facets	minLength 0 maxLength 25
annotation	documentation This attribute is part of the employee entity. This attribute holds the person's last name.

Element nsi:employeeTitle

type	restriction of **xs:string**
used by	element **nsi:employee**
facets	minLength 0 maxLength 35
annotation	documentation This attribute is part of the employee entity. This attribute is optional and holds the person's job title.

Element nsi:employeeType

type	restriction of **xs:string**
used by	element **nsi:employee**

facets	enumeration LotteryFieldRep enumeration LotteryAccountManager enumeration Manager enumeration Clerk enumeration Owner enumeration
annotation	documentation This attribute is part of the employee entity. This attribute holds information about an employee type. This is an element derived by restriction.

Element nsi:envPassword

type	restriction of **xs:string**
used by	element **envelope**
annotation	documentation This attribute contains part of the authentication information from the originator of an envelope. This is the password. The format assumes a secure and encrypted transmission session.

Element nsi:envUserId

type	restriction of **xs:string**
used by	element **envelope**
annotation	documentation This attribute contains part of the authentication information from the originator of an envelope. This is the user ID. The format assumes a secure and encrypted transmission session.

Element nsi:gln

type	restriction of **xs:string**
used by	elements **nsi:envFrom** **nsi:envTo**
facets	length 13
annotation	documentation This attribute is the Global Location Number (GLN) and is used to uniquely identify a location via a bar code format.

Element nsi:isoCurrency

type	restriction of **xs:string**
properties	content simple default USD
used by	element **nsi:accountingLineItem**
facets	length 3 enumeration USD enumeration ADP enumeration AED enumeration AFA

	enumeration ALL enumeration AMD enumeration ANG enumeration AOA enumeration ARS enumeration ATS enumeration AUD enumeration AWG enumeration AZM enumeration BAM enumeration BBD enumeration BDT enumeration BEF enumeration BGL enumeration BGN enumeration BHD enumeration BIF enumeration BMD enumeration BND enumeration BOB enumeration BOV enumeration BRL enumeration BSD enumeration BTN enumeration BWP enumeration BYR enumeration BZD enumeration CAD enumeration CDF enumeration CHF enumeration CLF enumeration CLP enumeration CNY enumeration COP enumeration CRC enumeration CUP enumeration CVE enumeration CYP enumeration CZK enumeration DEM enumeration DJF enumeration DKK enumeration DOP enumeration DZD enumeration EEK enumeration EGP enumeration ERN enumeration ESP enumeration ETB enumeration EUR enumeration FIM enumeration FJD enumeration FKP enumeration FRF enumeration GBP enumeration GEL enumeration GHC enumeration GIP enumeration GMD enumeration GNF enumeration GRD enumeration GTQ enumeration GWP enumeration GYD enumeration HKD enumeration HNL

	enumeration HRK enumeration HTG enumeration HUF enumeration IDR enumeration IEP enumeration ILS enumeration INR enumeration IQD enumeration IRR enumeration ISK enumeration ITL enumeration JMD enumeration JOD enumeration JPY enumeration KES enumeration KGS enumeration KHR enumeration KMF enumeration KPW enumeration KRW enumeration KWD enumeration KYD enumeration KZT enumeration LAK enumeration LBP enumeration LKR enumeration LRD enumeration LSL enumeration LTL enumeration LUF enumeration LVL enumeration LYD enumeration MAD enumeration MDL enumeration MGF enumeration MKD enumeration MMK enumeration MNT enumeration MOP enumeration MRO enumeration MTL enumeration MUR enumeration MVR enumeration MWK enumeration MXN enumeration MXV enumeration MYR enumeration MZM enumeration NAD enumeration NGN enumeration NIO enumeration NLG enumeration NOK enumeration NPR enumeration NZD enumeration OMR enumeration PAB enumeration PEN enumeration PGK enumeration PHP enumeration PKR enumeration PLN enumeration PTE enumeration PYG enumeration QAR enumeration ROL

	enumeration RUB enumeration RUR enumeration RWF enumeration SAR enumeration SBD enumeration SCR enumeration SDD enumeration SEK enumeration SGD enumeration SHP enumeration SIT enumeration SKK enumeration SLL enumeration SOS enumeration SRG enumeration STD enumeration SVC enumeration SYP enumeration SZL enumeration THB enumeration TJS enumeration TMM enumeration TND enumeration TOP enumeration TPE enumeration TRL enumeration TTD enumeration TWD enumeration TZS enumeration UAH enumeration UGX enumeration USN enumeration USS enumeration UYU enumeration UZS enumeration VEB enumeration VND enumeration VUV enumeration WST enumeration XAF enumeration XAG enumeration XAU enumeration XBA enumeration XBB enumeration XBC enumeration XBD enumeration XCD enumeration XDR enumeration XFO enumeration XFU enumeration XOF enumeration XPD enumeration XPF enumeration XPT enumeration XTS enumeration XXX enumeration YER enumeration YUM enumeration ZAR enumeration ZMK enumeration ZWD
annotation	documentation This attribute provides a reference to international currency and is part of the ISO 4217 standard.

Element nsi:lotteryRetailerId

type	restriction of **xs:string**
used by	element **envelope**
annotation	documentation This attribute contains the lottery-assigned retailer ID information.

Element nsi:lotteryTransactionIdentifier

type	restriction of **xs:string**
used by	elements **envelope** **nsi:packActivation** **nsi:validationResponse**
annotation	documentation This attribute is used to uniquely identify a transaction generated by the lottery to the retailer. This transaction ID needs to be unique only from the lottery's point of view. The retailer will simply reference this number in responses to the lottery's message.

Element nsi:messageDocumentCommand

type	restriction of **xs:string**
used by	element **nsi:message**
facets	enumeration ADD enumeration CHANGE_BY_REFRESH enumeration DELETE
annotation	documentation This attribute contains the command for how to handle the included document. Options include: add, change by refresh, and delete.

Element nsi:messageDocumentIdentifier

type	restriction of **xs:string**
used by	element **nsi:message**
facets	enumeration Order enumeration Pack_Activation enumeration Reciept enumeration Shipment enumeration Status enumeration U.P.C._PriceSales_Catalog enumeration U.P.C._PriceSales_Item enumeration Validation_Request enumeration Validation_Response
annotation	documentation This attribute contains an identifier for the type of content that is contained within the message.

Element nsi:orderIdentificationNumber

type	restriction of **xs:string**

used by	elements **nsi:order** **nsi:status**
facets	minLength 0 maxLength 12
annotation	documentation This attribute is part of the order attribute and will be used as a reference to the order in various other attributes. This identifier is assigned by the lottery as part of the order process. Order conformation will simply be a return to the retailer of the order information with the order identification number assigned.

Element nsi:organizationIdenificationNumber

type	restriction of **xs:string**
used by	element **nsi:organization**
annotation	documentation This attribute is used to reference an identification number for an organization. The retailer could use the lottery-assigned retailer number. The lottery could use a number assigned by the jurisdiction.

Element nsi:organizationName

type	restriction of **xs:string**
used by	element **nsi:organization**
facets	minLength 0 maxLength 45
annotation	documentation This attribute is part of the organization entity. This attribute holds the organization's name.

Element nsi:organizationType

type	restriction of **xs:string**
used by	element **nsi:organization**
facets	enumeration Lottery enumeration Retailer enumeration Shipper enumeration
annotation	documentation This attribute is part of the organization entity. This attribute holds the organization type. This is an element derived by restriction.

Element nsi:productCloseDate

type	**xs:date**
used by	element **nsi:upcPriceSalesCatalogItem**
annotation	documentation This attribute is part of the price sales catalog. This attribute is optional and contains the date when the game has been closed by the lottery. This information will be populated when the game close date is known.

Element nsi:productCount

type	**xs:integer**
used by	element **nsi:upcPriceSalesCatalogItem**
annotation	documentation This attribute is part of the price sales catalog and contains the count of the items in the product package. In the case of a pack or book of tickets, this would hold the number of tickets. In the case of an Instant Ticket, this would hold the single count of 1.

Element nsi:productCountUOM

type	restriction of **xs:string**
used by	element **nsi:upcPriceSalesCatalogItem**
facets	enumeration Ticket
annotation	documentation This attribute is part of the price sales catalog and contains the Unit of Measure (UOM) that is reflected in the productCount attribute. This would contain the descriptive term Ticket.

Element nsi:productDemographicPrimary

type	**xs:string**
used by	element **nsi:upcPriceSalesCatalogItem**
annotation	documentation This attribute is part of the price sales catalog. This attribute is optional and contains the game demographic information to assist in ordering decisions.

Element nsi:productDemographicSecondary

type	**xs:string**
used by	element **nsi:upcPriceSalesCatalogItem**
annotation	documentation This attribute is part of the price sales catalog. This attribute is optional and contains the game demographic information to assist in ordering decisions.

Element nsi:productDescription

type	restriction of **xs:string**
used by	element **nsi:upcPriceSalesCatalogItem**
facets	minLength 0 maxLength 45
annotation	documentation This attribute is part of the price sales catalog and contains the name of the Instant Ticket game.

Element nsi:productDimensionsDepth

type	**xs:string**
used by	element **nsi:productDimensions**
annotation	documentation This attribute is optional in the price sales catalog and contains the depth of a pack or ticket.

Element nsi:productDimensionsHeight

type	**xs:string**
used by	element **nsi:productDimensions**
annotation	documentation This attribute is optional in the price sales catalog and contains the height of a pack or ticket.

Element nsi:productDimensionsUOM

type	restriction of **xs:string**
used by	element **nsi:productDimensions**
facets	enumeration Centimeters enumeration Inches enumeration Milimeters
annotation	documentation This attribute is optional in the price sales catalog and contains the Unit of Measure (UOM) used in the dimensions of a pack or ticket. The options are inches, millimeters, and centimeters.

Element nsi:productDimensionsWidth

type	**xs:decimal**
used by	element **nsi:productDimensions**
annotation	documentation This attribute is optional in the price sales catalog and contains the width of a pack or ticket.

Element nsi:productManufacturerId

type	restriction of **xs:string**
used by	element **nsi:upcPriceSalesCatalogItem**
facets	minLength 0 maxLength 5
annotation	documentation This is an optional attribute part of the price sales catalog and that holds the Instant Ticket game number.

Element nsi:productPlannedLife

type	restriction of **xs:string**
used by	element **nsi:upcPriceSalesCatalogItem**
facets	minLength 0 maxLength 3
annotation	documentation This attribute is part of the price sales catalog. This attribute is optional and contains the estimated or planned life of the product. This is denoted in a number of weeks the game is intended to be available.

Element nsi:productPrice

type	**xs:string**
used by	element **nsi:upcPriceSalesCatalogItem**
annotation	documentation This attribute is part of the price sales catalog and contains the price of the product.

Element nsi:productStartDate

type	**xs:date**
used by	element **nsi:upcPriceSalesCatalogItem**
annotation	documentation This attribute is part of the price sales catalog. This attribute is optional and contains the date when the game is authorized to start by the lottery. This information should be included in the price sales catalog.

Element nsi:productTheme

type	restriction of **xs:string**
used by	element **nsi:upcPriceSalesCatalogItem**
facets	minLength 0 maxLength 65
annotation	documentation This attribute is part of the price sales catalog. This attribute is optional and contains the game theme of the product to assist in ordering decisions.

Element nsi:productWeight

type	restriction of **xs:string**
used by	element **nsi:upcPriceSalesCatalogItem**
facets	minLength 0 maxLength 4
annotation	documentation This attribute is optional in the price sales catalog and contains the weight of a pack or ticket.

Element nsi:productWeightUOM

type	restriction of **xs:string**
used by	element **nsi:upcPriceSalesCatalogItem**
facets	enumeration Grams enumeration Ounces enumeration Pounds
annotation	documentation This attribute is optional in the price sales catalog and contains the Unit of Measure (OUM) used in the weight of a pack or ticket. The options are ounces, pounds, and grams.

Element nsi:receiptComment

type	restriction of **xs:string**
used by	element **nsi:receipt**
facets	minLength 0 maxLength 65
annotation	documentation This attribute is part of the shipping receipt entity. The attribute is optional and holds the information that further explains the shipment condition if there is something wrong.

Element nsi:receiptCondition

type	restriction of **xs:string**
used by	element **nsi:receipt**
facets	enumeration Complete enumeration Damaged enumeration Partial
annotation	documentation This attribute is part of the shipping receipt entity. The attribute holds the information pertaining to the condition in which the shipment was received. This is an attribute restricted by enumeration that is a simple list.

Element nsi:receiptDate

type	**xs:date**
used by	element **nsi:receipt**
annotation	documentation This attribute is part of the shipping receipt entity. The attribute holds the date information for when a shipment was received.

Element nsi:retailerClerkIdentifier

type	restriction of **xs:string**

used by	elements **nsi:packActivation** **nsi:salesReportDetailed** **nsi:validationRequest**
annotation	documentation This attribute is used to uniquely identify a clerk employed by the retailer to the lottery. This ID needs to be unique only from the retailer's point of view.

Element nsi:retailerRegisterIdentifier

type	restriction of **xs:string**
used by	elements **nsi:packActivation** **nsi:salesReportDetailed** **nsi:validationRequest**
annotation	documentation This attribute is used to uniquely identify a register at retailer location to the lottery. This ID needs to be unique only from the retailer's point of view.

Element nsi:retailerStoreId

type	restriction of **xs:string**
used by	element **envelope**
annotation	documentation This is an attribute that is assigned by the retailer to a store location.

Element nsi:retailerTransactionIdentifier

type	restriction of **xs:string**
used by	elements **envelope** **nsi:packActivation** **nsi:validationRequest** **nsi:validationResponse**
annotation	documentation This attribute is used to uniquely identify a transaction generated by the retailer to the lottery. This transaction ID needs to be unique only from the retailer's point of view. The lottery will simply reference this number in response to the retailer's message.

Element nsi:salesReportAmount

type	restriction of **xs:string**
used by	elements **nsi:salesReportDetailed** **nsi:salesReportSummary**
facets	minLength 0 maxLength 10
annotation	documentation This attribute is part of both the sales report detail entity and the sales report summary entity. This attribute is optional and contains sales amount for the item or period in which the item was sold.

Element nsi:salesReportDateTime

type	**xs:dateTime**
used by	element **nsi:salesReportDetailed**

annotation	documentation This attribute is part of the sales report detail entity. The attribute holds a date time stamp for the point in time that the sale occurred.

Element nsi:salesReportSumaryStartDateTime

type	**xs:dateTime**
used by	element **nsi:salesReportSummary**
annotation	documentation This attribute is part of the sales report summary entity. The attribute holds a date time stamp for the end point in time for the reporting period.

Element nsi:salesReportSummaryEndDateTime

type	**xs:dateTime**
used by	element **nsi:salesReportSummary**
annotation	documentation This attribute is part of the sales report summary entity. The attribute holds a date time stamp for the starting point in time for the reporting period.

Element nsi:serialNumber

type	restriction of **xs:string**
used by	elements **nsi:accountingLineItem** **nsi:packActivation** **nsi:status** **nsi:validationRequest** **nsi:validationResponse**
annotation	documentation This attribute is the serial number of an item and can be either a pack or ticket number.

Element nsi:shipmentDate

type	**xs:date**
used by	element **nsi:shipment**
annotation	documentation This attribute is part of the shipment entity. This attribute holds the date of shipment.

Element nsi:shipmentEstimatedDelivery

type	**xs:date**
used by	element **nsi:shipment**
annotation	documentation This attribute is part of the shipment entity. This attribute holds the estimated delivery date of shipment.

Element nsi:shipmentPackageCount

type	restriction of **xs:string**
used by	element **nsi:shipment**
facets	minLength 0 maxLength 3
annotation	documentation This attribute is part of the shipment entity. This attribute is optional and holds a count of the number of boxes in the shipment.

Element nsi:shipmentTrackingNumber

type	restriction of **xs:string**
used by	element **nsi:shipment**
facets	minLength 0 maxLength 45
annotation	documentation This attribute is part of the shipment entity. This attribute holds the shipper's tracking number for the shipment.

Element nsi:statusComment

type	restriction of **xs:string**
used by	element **nsi:status**
facets	minLength 0 maxLength 65
annotation	documentation This attribute is part of the status entity. The attribute is optional and holds a comment further explaining the status of pack or ticket.

Element nsi:statusDateTime

type	**xs:dateTime**
used by	element **nsi:status**
annotation	documentation This attribute is part of the status entity. The attribute holds the date-time stamp for the point in time that the status is accurate.

Element nsi:statusDetail

type	restriction of **xs:string**
used by	element **nsi:status**
facets	enumeration Ordered enumeration Recieved

	enumeration Activated enumeration Sold enumeration Settled enumeration Missing enumeration Damaged enumeration Stolen enumeration InStockConsigened enumeration InStockActviated enumeration Settled enumeration Returned enumeration PartialReturn
annotation	documentation This attribute is part of the status entity. The attribute holds the actual detail of the status from an enumerated list.

Element nsi:upcNumber

type	restriction of **xs:string**
used by	elements **nsi:orderItem** **nsi:packActivation** **nsi:salesReportDetailed** **nsi:salesReportSummary** **nsi:status** **nsi:upcPriceSalesCatalogItem** **nsi:validationRequest** **nsi:validationResponse**
facets	minLength 10 maxLength 14
annotation	documentation This attribute is used in various entities and holds the actual U.P.C./EAN number that identifies the product within a bar code.

Element nsi:validationAmount

type	**xs:decimal**
used by	element **nsi:validationResponse**
annotation	documentation This attribute is used for Instant Ticket validation. This will be the validation or prize amount that the retailer should pay. Note: This amount may be zero in the event that the prize needs to be claimed at the lottery, or if the ticket is not a winner.

Element nsi:validationMessage

type	restriction of **xs:string**
used by	element **nsi:validationResponse**
facets	minLength 0 maxLength 30
annotation	documentation This attribute is used for Instant Ticket validation. This will contain a lottery-generated message that can be used to communicate the validation status to the player. This could be used to print out on a receipt as well.

Element nsi:validationStatus

type	restriction of **xs:string**
used by	element **nsi:validationResponse**
facets	enumeration LowTier enumeration MidTier enumeration ClaimAtLottery enumeration NotA Winner
annotation	documentation This attribute is used for Instant Ticket validation. This will be a status code to show the type of validation for use in automated processes.

D Glossary

The following terms and acronyms are used in this document:

Activation	The lottery term used to describe the time at which an Instant Ticket pack transfers ownership from the lottery to the retailer. At this point, the retailer is financially responsible for the pack, and some form of billing cycle starts.
Auto-activation	A way the activation occurs based on an event. Typically, when a winning Instant Ticket is scanned at a retailer location, the Instant Ticket support system verifies that the pack has been activated. If the pack is not activated, the system "auto-activates" the pack. See also Activation.
Book	Another way to refer to the wholesale packaging of Instant Tickets. See also Pack.
Consignment	The common practice wherein a supplier puts stock into a retail establishment but retains ownership. There is normally a process to transfer ownership to the retailer as the product is made available for retail sale. See also Activation.
GS1	The organization that evolved from the UCC. GS1 is currently responsible for many aspects of wholesale and retail bar coding and messaging. This Best Practice leverages the work of GS1 bar codes, commonly called U.P.C. bar codes, GTIN bar codes, Databar bar codes, etc. The Best Practice is also consistent with GS1 work in messaging.
Pack	The wholesale packaging for Instant Tickets. This is usually a shrink-wrapped block of tickets. Packs are commonly identified by a unique number that is part of the lottery-specific bar code printed on tickets within that pack. The exposed lottery-specific bar code on the last ticket in the pack is commonly used as the serialized bar code for pack tracking. This Best Practice also requires the pack to have an appropriate U.P.C./EAN bar code, specific only to the game level on each pack, to support inventory management.
Pack Number	A unique identifier used by the lottery to identify a specific pack. This generally takes the form of a bar code on the pack. This bar code is traditionally scanned via the lottery sales terminal. See also Serial Number.
POS	The point of sale.
Received	A term used to indicate that an item that was previously ordered has been received.
Serial Number	A serial number is simply a way to uniquely identify a specific product. These occur in various forms on everything from stereo systems to cars. The serial number is usually placed on items that carry a warranty or other after sale

activity that is performed by the vendor or the vendor's agent. Many existing retail systems allow the use of a serial number to maintain inventory integrity. The pack or ticket number in the lottery industry is a specialized type of serial number.

Settled or Settlement
: A lottery term used to describe the act of actually billing the retailer for a pack of tickets. Normally, there is a set period of days between the time a pack is activated and the time it is settled. This period is designed to allow sales of the product to cover the cost of the pack. Other formulas can be used to trigger activation, such as percentage of activations. Once the settlement date had been reached, the cost of the pack is added to the next invoice.

Ticket Number
: A unique identifier used by the lottery to identify a specific ticket. This generally takes the form of a bar code on the ticket. This bar code is traditionally scanned via the lottery sales terminal. See also Serial Number.

Validation
: The process used to check whether a ticket is a winner and confirm the prize amount. This usually involves scanning a ticket at a lottery terminal. This Best Practice defines a message set to allow this activity to occur between the retailer and the lottery without a terminal. See Section 5.2.5.

Wholesale Packaging
: A term used in the retail world to refer to the way inventory is generally shipped. The wholesale packaging generally includes multiple retail units. This packaging has a unique U.P.C./EAN bar code that refers to the information about the packaging size, weight, and the number of retail units included.