

# NSI Core Retailer Web-Based Applications Validation Specification

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## Table of Contents

1. Overview .....	3
1.1 Introduction .....	3
1.2 Scope .....	4
1.3 Terminology and Definitions .....	4
1.4 Referenced Documents .....	4
2. Validation Environment .....	4
2.1 General Design Considerations .....	5
2.2 Specific Design Considerations.....	5
2.2.1 Lottery Retailer-Focused Website .....	5
2.2.2 Web-Based Retailer Application.....	5
3. Validation Harness Specification .....	5
4. Submission Guidelines .....	6
4.1 Validation Report .....	6
4.1.1 Validation Results .....	6
4.1.2 Completed Questionnaire .....	6
4.1.3 Validation Environment Description .....	6
4.2 Additional supporting information concerning the Validation Results .....	7
4.2.1 Interpretation of the Validation Results .....	7
4.3 Validation Harness Design Documentation.....	7

## 1. Overview

### 1.1 Introduction

The objective of the North American Association of State and Provincial Lotteries (NASPL) Standards Initiative Certification and Verification Program is to encourage and facilitate the adoption and implementation of NASPL Standards Initiative (NSI) Best Practices and Technical Standards in lotteries, lottery industry vendors, and other lottery industry expert organizations that provide software, hardware, or services to lotteries. The program provides formal recognition of an Organization's conformance to an industry Best Practice or Technical Standard. The Certification Program is for vendors and other organizations that wish to demonstrate and receive recognition for the conformance of their business practices and technologies to the NSI Best Practices and Technical Standards, whereas the Verification Program is the parallel program providing the means for lotteries to demonstrate conformance in the areas applicable to lotteries.

This document, the NSI Core Retailer Web-Based Applications Validation Specification, defines:

- **The Validation Environment**, which is comprised of:
  - The Lottery Retailer-Focused Website or an installation of the Web-Based Retailer Application.
  - A browser-based client that will access the website.
- **The Validation Harness**, which is a specific software implementation within the Validation Environment that provides the capacity to validate the core technologies used in the website, producing a report to be included in the Validation Report.
- **The Submission Guidelines** for:
  - The Validation Report, which is comprised of:
    - Validation Results
    - A description of the Validation Environment
    - Optional additional supporting information concerning the Validation Results.
    - Optional interpretation of the Validation Results.
  - Documentation of the Validation Harness:
    - The version of the Validation Tool utilized in the certification/verification
    - A description of the client system used to run the Validation Tool

This document is intended primarily for the technical resources of an Organization that would like to certify or verify one or more of their entities against the Core Retailer Web-Based Applications Best Practice. The collective policy represented by both the general NSI Certification/Verification Policy document and the NSI Policy Supplement for Core Retailer Web-Based Applications Certification/Verification - in conjunction with the Certification/Verification Agreement and applicable Trademark License Agreement - constitutes the set of requirements and obligations for achieving certification/verification.

## 1.2 Scope

NSI Core Retailer Web-Based Applications certification/verification covers the following NSI Best Practice: Core Retailer Web-Based Applications. The Best Practice establishes the technical basis for retailer-focused websites by specifying existing technical standards that are broadly recognized in web-based business as best practice approaches to web support. The Best Practice builds on this technology foundation by establishing the types of financial transactions that need to be included to meet retailers' needs, and establishes a time period for these transactions to be available to the retailer.

A candidate for Core Retailer Web-Based Applications certification or verification is classified as either a Lottery Retailer-Focused Website or a Web-Based Retailer Application. This document is focused on certification/verification of these applications, which consists of:

- **Lottery Retailer-Focused Website** This entity represents a web-based application used by a lottery to provide financial and other information to retailers. Verification applies to the website for a specific lottery.
- **Web-Based Retailer Application** This entity represents a web-based application intended for use by one or more lotteries for a retailer-focused website that provides financial and other information to retailers. Certification applies to the application itself, which may be installed at multiple lotteries with minimal configuration.

## 1.3 Terminology and Definitions

Refer to the general NSI Certification/Verification Policy document.

## 1.4 Referenced Documents

This document should be used in conjunction with the general NSI Certification/Verification Policy document and the NSI Policy Supplement for Core Retailer Web-Based Applications Certification/Verification. It is not intended for stand-alone use.

## 2. Validation Environment

This section describes what a Validation Environment must accomplish in order to successfully validate the Lottery Retailer-Focused Website or Web-Based Retailer Application to achieve certification or verification against the Core Retailer Web-Based Applications Best Practice. An overview of the process for certification/verification can be found in the NSI Policy Supplement for Core Retailer Web-Based Applications Certification/Verification.

In general, test environments attempt to recreate an actual operational environment with defined monitoring points. These monitoring points become the basis for demonstrating conformance. Specifically, the validation approach for the Core Retailer Web-Based Applications Best Practice utilizes an automated process to evaluate the base foundation of the website or application submitted by an Organization. This automated evaluation necessarily imposes some requirements on the design of the Validation Environment, as detailed in the sections that follow.

As part of the Applicant's submission for certification or verification, the Applicant will be required to include a document describing the Validation Environment that was used.

## **2.1 General Design Considerations**

For both Lottery Retailer-Focused Websites and Web-Based Retailer Applications, the design of the Validation Environment must maintain the integrity of all source files as well as the capture of the monitored results. In creating the Validation Environment for the Core Retailer Web-Based Applications Best Practice, Applicants must utilize the actual software and related equipment, if any, that comprise the website or application. This software and equipment must be configured in a manner consistent with an actual operational environment, with the appropriate monitoring point established per the Validation Harness Specification.

Both Lottery Retailer-Focused Websites and Web-Based Retailer Applications require a basic environment design that includes the website configured and populated with financial data and a browser-based client that will access the website. Specific requirements are detailed in Section 2.2 below.

## **2.2 Specific Design Considerations**

### **2.2.1 Lottery Retailer-Focused Website**

The design should utilize the actual website, if possible. A test retailer account can be utilized in running the validation software. If a test website is used, the components must be the same as the actual environment. The reason for utilizing a test environment must be documented as part of the Validation Documentation to be submitted per Section 4.1.2 below.

### **2.2.2 Web-Based Retailer Application**

In the design for a Web-Based Retailer Application, the Validation Environment must use equipment that is either part of the application or consistent with the recommended technology that supports the application. There must be sample retailer data available on the website consistent with the requirements of the Best Practice.

## **3. Validation Harness Specification**

The Validation Harness for the Core Retailer Web-Based Applications Best Practice is a specific software implementation used within the Validation Environment that provides the capacity to validate the core technologies used in the website, producing a report to be included in the Validation Report. This software is distributed as part of the Validation process for use in the Applicant's Validation Environment. This is the only monitoring point within the Validation Environment.

The software used as the Validation Harness is a web-based Validation Tool that is run locally on a client system. The Validation Tool allows a user to access the Lottery Retailer-Focused Website or an installation of the Web-Based Retailer Application within the Validation Environment as a user. The Validation Tool displays the website in one browser window, and the details of the website's base technologies in another window. As the user navigates the website, navigation and technology details are confirmed within the separate window. After navigation of the required aspects of the website is complete, the detail window can be saved as a file to be submitted as part of the Validation Report as defined in Section 4.1 below.

## **4. Submission Guidelines**

This section defines the documentation to be submitted to the Certification and Verification Authority by the Applicant:

- The Validation Report, including the Validation Results, a description of the Validation Environment, and a completed questionnaire detailing the features of the Lottery Retailer-Focused Website or Web-Based Retailer Application.
- Validation Harness Documentation

The Applicant will prepare the documentation for submission as described in this section and will upload the files to the Certification and Verification Authority via the web-based certification/verification system during the appropriate step in the certification/verification process, as described in the NSI Guide Supplement for Core Retailer Web-Based Applications Certification/Verification.

### **4.1 Validation Report**

The Validation Report comprises at least three discrete documents (see below) and therefore must be submitted as a single file in a standard document archive format (zip or tar/gzip). The documents that must be included in the Validation Report archive file are:

- Validation results as defined in 4.1.1 below
- A completed questionnaire on application features and data retention
- A document containing a description of the Validation Environment consistent with the considerations detailed in Section 2 above. This description should be presented in the format described in the appropriate subsection of Section 4.1.2 below.

Additional documents that may optionally be included in the Validation Report archive file are:

- Additional supporting information concerning the Validation Results.
- Interpretation of the Validation Results.

#### **4.1.1 Validation Results**

The contents of the browser window opened by the Validation Harness during the tests must be saved in an HTML format. The file should be titled ValidationResults.html and submitted to the Certification and Verification Authority as part of the Validation Report.

#### **4.1.2 Completed Questionnaire**

This is a series of questions that address the application's functionality in the following areas:

- Mapping the types of financial data defined in the Best Practice to the site map produced in the Validation Results
- Description of retention methodology and how parameters are set
- How any optionally supported features are handled
- Details on how retailer accounts are established and maintained

#### **4.1.3 Validation Environment Description**

This section defines how to submit a detailed description of the Validation Environment. The Validation Environment description consistent with Section 2 above should be consolidated into a single PDF file named ValidationEnvironment.pdf and

submitted to the Certification and Verification Authority as part of the Validation Report. Documentation must include all software and hardware that is part of the Validation Environment.

## **4.2 Additional supporting information concerning the Validation Results**

The Applicant may optionally submit additional supporting information concerning the validation process and the Validation Results that were captured as output. This information should be consolidated into a single PDF file named SupportingInformation.pdf and submitted to the Certification and Verification Authority as part of the Validation Report.

### **4.2.1 Interpretation of the Validation Results**

The Applicant may optionally submit additional information concerning the interpretation of the Validation Results. This information should be consolidated into a single PDF file named ResultsInterpretation.pdf and submitted to the Certification and Verification Authority as part of the Validation Report.

## **4.3 Validation Harness Design Documentation**

Documentation of the Validation Harness must include:

- Version of the Validation Tool
- Client system used to run the Validation Tool including:
  - Make and model of system
  - Operating system
  - Browser type and version
  - Internet connection details

This should be provided in a single PDF file named ValidationHarnessDocumentation.pdf