

# **Chapter 1**

## **Look Inside**

### **Introduction**

## 1.1 Overview

The IGSA Regulatory Reporting Interface (RRI) specification is designed to provide gaming regulators with a data model for reporting information needed to monitor gaming activity in an efficient and economic manner. This includes the information needed to balance player accounts, calculate taxable revenues, verify game performance, balance jackpots, etc.

RRI is designed to be used to monitor online gaming systems as well as land-based gaming activities. This is important when the same games are being offered through multiple channels and a consolidated and consistent view of the gaming activity through all channels is needed.

RRI focuses on the content and format of the gaming information. It does not specify how the information is transmitted to regulators, secured, or stored. Companion specifications address these needs. Other delivery, security, and storage mechanisms are possible.

RRI is designed to support multi-jurisdictional environments where gaming systems may be hosting players from different jurisdictions, possibly using different currencies. RRI is also designed to support network games — that is, games that allow players from different operators, possibly from different jurisdictions, to play against one another.

RRI focuses on the logical roles played by gaming systems — that is, player registration, account management, game play, and jackpot management. A specific system within a gaming network could act in one or more of those roles. Each system can report the information appropriate to the roles that it plays in the gaming network using data formats expressly designed for that purpose. In this way, many different business models can be easily accommodated with a high degree of flexibility.

The data formats used within RRI are flexible to support various revenue reporting and taxation models. For example, wagers of promotional credits are isolated from other types of wagers so that, when necessary, wagers of promotional credits can be excluded from the calculation of taxable revenue. New game categories and new types of transactions can be easily added to the data model to address evolving business and regulatory needs.

## 1.2 Benefits

RRI is intended to provide tangible benefits to suppliers, regulators, and operators. Some of those benefits are listed below.

For suppliers,

- Provides a single reporting model that can be used across multiple jurisdictions.
- Minimizes the amount of customization required for different jurisdictions.
- Creates fewer barriers to entry when entering new jurisdictions.

For regulators,

- Minimizes the need to develop jurisdiction-specific requirements.
- Creates the opportunity for off-the-shelf solutions for common regulatory tasks.
- Facilitates sharing of information across jurisdictions.

For operators,

- Minimizes the need for jurisdiction-specific development.
- Lowers acquisition costs and on-going compliance costs.
- Reduces the time-to-market for new products.

## 1.3 Reporting Model

Three modes of reporting are supported by RRI: periodic reporting, near-real-time reporting, and real-time reporting.

- **Periodic** reporting is the primary mode of reporting within RRI. It may be the only mode of reporting used in many jurisdictions. In this mode, gaming activity is summarized and reported after the fact, typically on a daily and/or monthly basis. The information reported in this mode includes game-play summaries, funds-in-play summaries, player account activity summaries, and jackpot activity summaries.
- **Near-real-time** reporting is the secondary mode of reporting. It may be used when a greater level of detail is required. In this mode, gaming activity is also reported after the fact, but at a much greater level of detail and at a much greater frequency than with periodic reporting – for example, reporting sports bets immediately after they have been placed. Near-real-time reports are designed to provide the detail behind the periodic reports. The types of information reported in this mode include game-play results, player account movements, and jackpot movements. Even though these reports are referred to as near-real-time, the frequency can be much longer depending on the needs of the jurisdiction – for example, sports bets can be reported hourly or daily if that is the preferred frequency.
- **Real-time** reporting is the third mode of reporting. In this mode, transactions are reported in real-time to regulatory systems for approval. The regulatory systems are expected to authorize or deny the transactions. This mode of operation provides regulators with transactional control over certain critical operations. In most jurisdictions, this mode will only be used with a very limited set of transactions. The types of information reported in this mode include player registrations, account deposits, game initiation, game buy-in, etc.

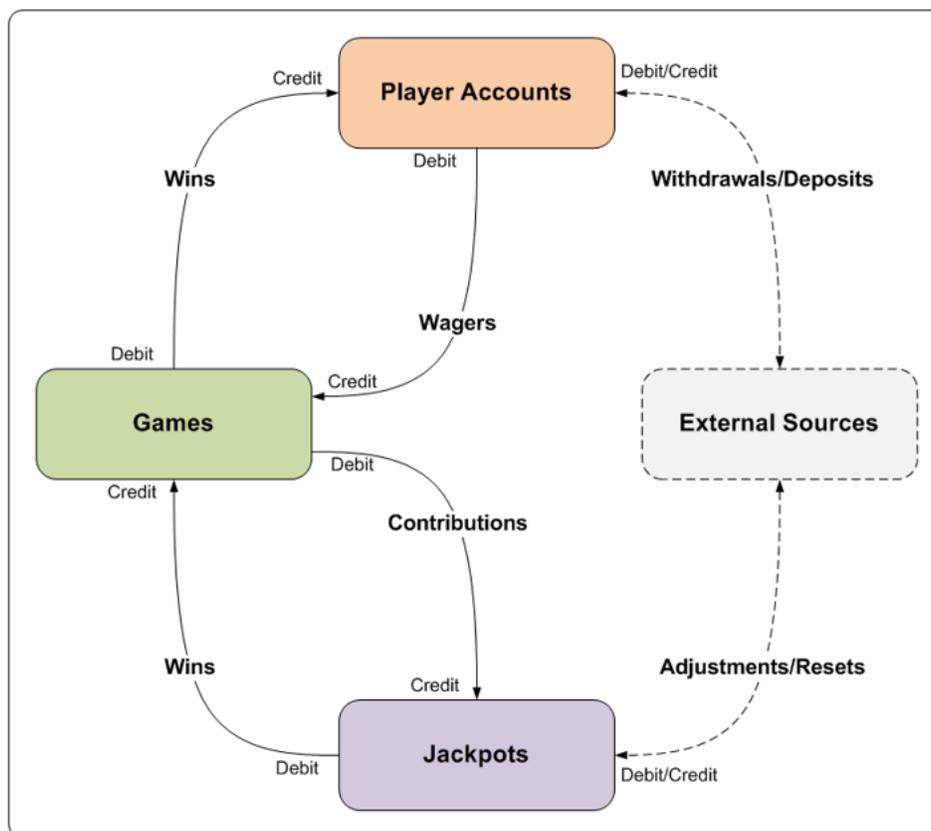
All reports are designed to be internally consistent with one another so that the reported data itself can be audited and reconciled. Real-time reports can be reconciled against near-real-time reports. Near-real-time reports can be reconciled against periodic reports. Different periodic reports can be reconciled against one another. Ending balances can be reconciled against opening balances.

Not all reports may be needed by a specific jurisdiction – for example, if a jurisdiction does not audit player registration information, the jurisdiction might not need reports containing that information; or, if a jurisdiction does not monitor gaming operations in real-time, the jurisdiction might not need real-time reports. RRI is designed so that jurisdictions can select the modes, as well as the types of data, most appropriate to their needs.

## 1.4 Accounting Model

The primary accounting model used in the RRI specification is similar to double-entry bookkeeping. For every debit, there is an offsetting credit. For example, if there is a debit to a player account for a wager, there is also an offsetting credit to the game for the wager. Player accounts, games, and jackpots are viewed as bookkeeping accounts. Funds move from one account to another. The total debits always equal the total credits.

The only exception to this rule is funds movements to/from external sources – for example, deposits to player accounts or adjustments to jackpots. Within this specification, there are no offsetting entries for those types of funds movements. Thus, those types of funds movements cannot be reconciled against other offsetting funds movements reported with this specification. Instead, those types of funds movements must be reconciled against external sources of information – for example, statements from banks or payments processors.



This model is referred to as the Online Reporting Model within the RRI specification. It is ideally suited to online gaming as well as account-based wagering in land-based gaming. However, it is not suitable for all land-based activities, such as traditional table games and EGMs (Electronic Gaming Machines). In those cases, alternate, more traditional, accounting models are used. These models are referred to as Traditional Reporting Models.

The chapter of the RRI specification that cover specific game categories — that is, fixed-odds betting, pari-mutuel betting, poker cash games, poker tournaments, etc. — include information about the recommended accounting models for the game categories. This information includes the list of transaction types (also known as metrics or meters) used within the accounting model.

The chapters of the RRI specification related to player accounts and jackpots contain the recommended accounting models for external funds movements to/from player accounts and jackpots. Funds movements associated with game play are addressed in the pertinent chapters related to specific game categories; external funds movements, which are not associated with game play, are addressed in the chapters related to player accounts and jackpots.

## 1.5 Periodic and Near-Real-Time Reports

The following table provides a summary of the primary periodic and near-real-time (NRT) reports supported by RRI. The data structures for the reports, as well as the real-time transactions that support them, are fully described in the pertinent chapters of the RRI specification. Other secondary reports may also be described in those chapters.

A common set of headers is used with all reports defined within the RRI specification. The headers act as the outer wrapper for the reports. They identify the contents of the reports. The headers are fully described in the chapter of the RRI specification on constructing reports.

Table 1.1 Periodic and Near-Real-Time Reports

Report Type	Role	Mode	Description
Player Registration	Player Registration	Periodic or NRT	Contains the player registration information for players at the end of the period.
Player Activity	Player Accounts	Periodic or NRT	Contains changes to player account balances from sources other than game-play – for example, deposits, adjustments, etc.
Player Balances	Player Accounts	Periodic	Contains opening balances, closing balances, and a summary of transactions affecting those balances for the period sorted by player.
Jackpot Activity	Jackpots	Periodic or NRT	Contains records of changes to jackpot balances from sources other than game-play – for example, adjustments, jackpot resets, etc.
Jackpot Balances	Jackpots	Periodic	Contains opening balances, closing balances, and a summary of transactions affecting those balances for the period sorted by jackpot.
Game Activity	Online Games	Periodic or NRT	Contains records of individual game-play activities – for example, wagers, winnings, voids, cancellations, etc.
Game Results	Online Games	Periodic or NRT	Contains records of completed games including wagers, wins, and jackpot contributions.
Game Summary	Online Games	Periodic	Contains a summary of funds movements by game for the period.
Player Summary	Online Games	Periodic	Contains a summary of funds movements by player for the period.
Jackpot Summary	Online Games	Periodic	Contains a summary of funds movements by jackpot for the period.
Game Funds-In-Play	Online Games	Periodic	Contains a summary of wagers, wins, and jackpot contributions for games that were not completed at the end of the period sorted by game.
Player Funds-In-Play	Online Games	Periodic	Contains a summary of wagers and wins for games that were not completed at the end of the period sorted by player.

Table 1.1 Periodic and Near-Real-Time Reports

<b>Report Type</b>	<b>Role</b>	<b>Mode</b>	<b>Description</b>
Jackpot Funds-In-Play	Online Games	Periodic	Contains a summary of jackpot contributions and wins for games that were not completed at the end of the period sorted by jackpot.
Land-Based Events	Land-Based Games	Periodic or NRT	Contains records of events related to traditional land-based games – for example, ticket issued, ticket redeemed, etc.
Land-Based Summary	Land-Based Games	Periodic	Contains a summary of the activity related to traditional land-based games for the period sorted by terminal.
Land-Based Games	Land-Based Games	Periodic	Contains a summary of the activity related to traditional land-based games for the period summarized by game.

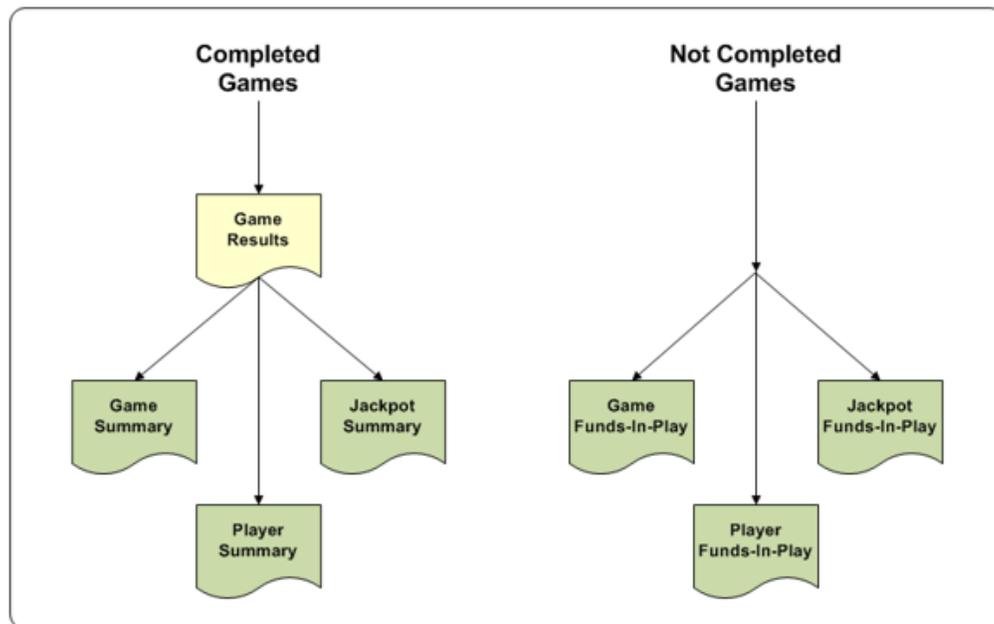
## 1.6 Using Reports About Games

When the primary accounting model (online) is used, all funds movements resulting from completed games are contained in a single report — Game Results. This report includes all funds movements between games, player accounts, and jackpots.

One section of the Game Results report summarizes the fund movements to/from the game, another section summarizes the fund movements to/from player accounts, and a third section summarizes the funds movements to/from jackpots. The total debits in a Game Results report should always equal the total credits.

At the end of a period (day or month), the sections of Game Results reports pertaining to games are summarized in a Game Summary report for the period. This report includes all funds movements to/from the games that were completed during the period. Similarly, the sections pertaining to player accounts are summarized in a Player Summary report and the sections pertaining to jackpots are summarized in a Jackpot Summary report. When combined, the total debits in the three Summary reports should always equal the total credits. They should also equal the total activity reported in the Game Results reports.

At the same time, information about funds-in-play is summarized and reported. Funds-in-play includes activity related to games that were not completed by the end of the period and, thus, were not reported in Game Results. Funds-in-play information for games is summarized in a Game Funds-In-Play report. This report includes all funds movements to/from games that were not completed by the end of the period. Similarly, funds-in-play for player accounts is summarized in a Player Funds-In-Play report and funds-in-play for jackpots is summarized in a Jackpot Funds-In-Play report. The total debits in the Funds-In-Play reports should always equal the total credits.



The information in the Game Summary report can be used to calculate the net win from completed games for the period. Typically, net win simply equals credits to the game minus debits — that is, movements in less movements out. However, when necessary, certain categories of transactions can be excluded from the calculation to meet regulatory requirements – for example, wagers of promotional funds could be excluded.

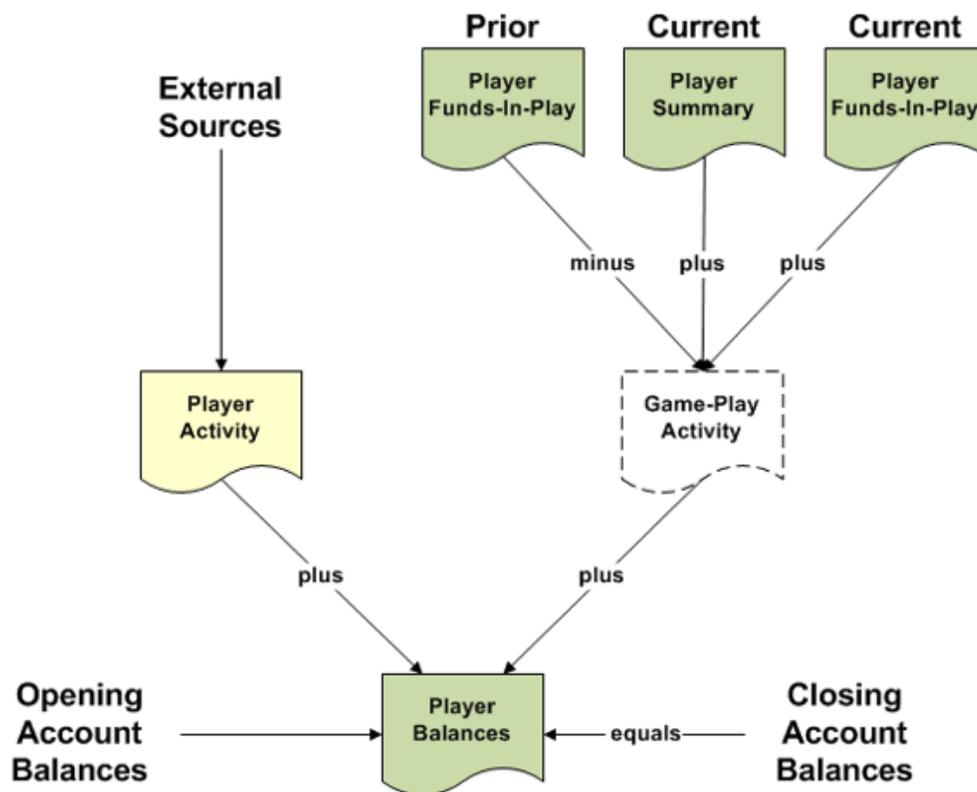
The net win can also be adjusted to a “cash” basis — that is, net win can be adjusted to include all game-play activity, not just activity associated with completed games. This is accomplished by including the net activity associated with games that have not been completed (funds-in-play) with the activity from completed games — that is, by adding the net win contained in the Game Funds-In-Play report for the current period to the Game Summary and then subtracting the net win contained in the Game Funds-In-Play report for the prior period.

As discussed in the next sections, the information in the Player Summary and Player Funds-In-Play reports can be used to verify that the ending balances in player accounts are correct. Likewise, the information in the Jackpot Summary and Jackpot Funds-In-Play reports can be used to verify that the ending balances for jackpots are correct

## 1.7 Using Reports About Player Accounts

All debits and credits to player accounts from external sources — that is, sources other than game-play — are contained in a single report — Player Activity. This report includes deposits, withdrawals, transfers, adjustments, promotional awards, etc.

At the end of a period (day or month), the funds movements in the Player Activity reports are summarized by player and included in a Player Balances report. This report also includes the opening player account balances, closing account balances, and summaries of all funds movements associated with game-play. Both completed games and funds-in-play are included so that the player accounts can be fully balanced.



Various reconciliations can be performed with these reports. For example, using the information contained in the Player Balances report, the closing account balance for a player can be reconciled against the opening balance. The closing balance should equal the opening balance minus all debits from external sources and game-play plus all credits.

The information in the Player Balances reports can also be reconciled against the Player Summary and Player Funds-In-Play reports for the period. The funds movements from game-play reported in the Player Balances report for the current period should equal the funds

movements reported in the Player Summary report for the current period minus the funds movements in the Player Funds-In-Play report for the prior period plus the funds movements reported in the Player Funds-In-Play report for the current period.

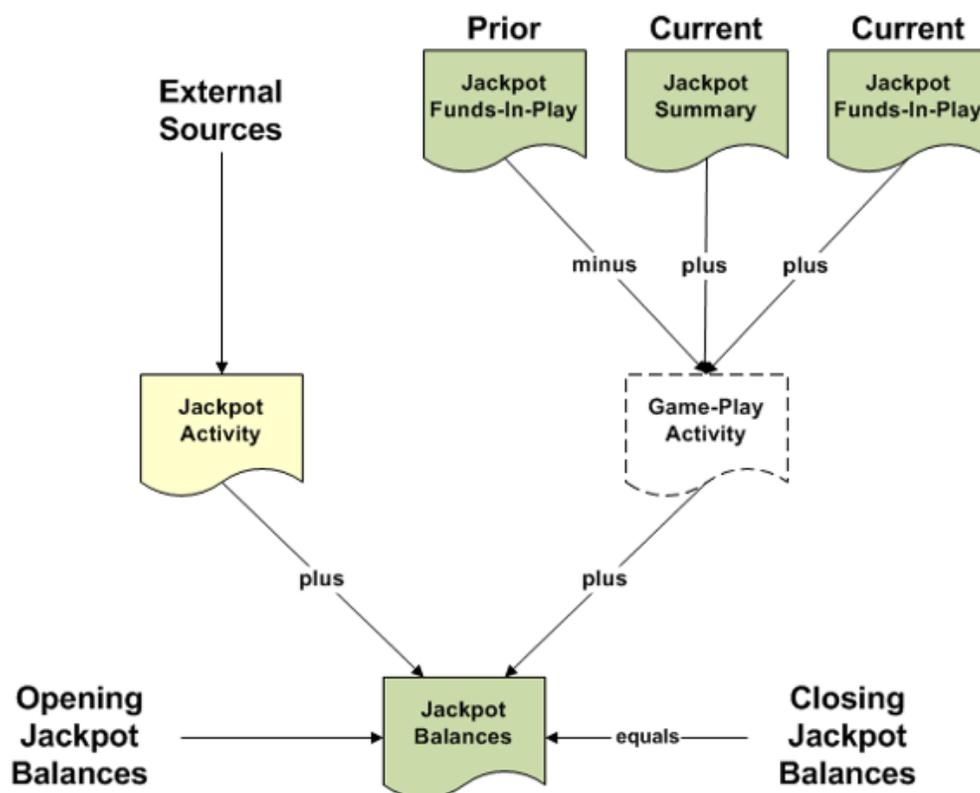
Often this information will be coming from two different sources – for example, Player Balances reports will be coming from a player account management system while the Player Summary and Player Funds-In-Play reports will be coming from a game server. Reconciling the two sources of information can help verify that all systems are reporting correctly.

## 1.8 Using Reports About Jackpots

Reports about jackpots can be used in a manner that is very similar to the manner in which reports about player accounts are used.

Like player accounts, all debits and credits to jackpots from external sources — that is, sources other than game-play — are contained in a single report — Jackpot Activity. This report includes jackpot start-ups, jackpot resets, jackpot adjustments, etc.

At the end of a period (day or month), the funds movements in the Jackpot Activity reports are summarized by jackpot and included in the Jackpot Balances report. This report also includes the opening jackpot balances, closing jackpot balances, and summaries of all funds movements associated with game-play for the period. Like player accounts, both completed games and funds-in-play are included so that the jackpots can be fully balanced.



Like the reconciliations described above for player accounts, various reconciliations can be performed with the jackpot reports. For example, the closing balance for a jackpot can be reconciled against the opening balance using the information contained in the Jackpot Balances report. The closing balance should equal the opening balance minus all debits from external sources and game-play plus all credits.

The information in the Jackpot Balances reports can also be reconciled against the Jackpot Summary and Jackpot Funds-In-Play reports for the period. The funds movements from game-play reported in the Jackpot Balances report for the current period should equal the funds movements reported in the Jackpot Summary report for the current period minus the funds movements in the Jackpot Funds-In-Play report for the prior period plus the funds movements reported in the Jackpot Funds-In-Play report for the current period.

Often this information will be coming from two different sources – for example, Jackpot Balances reports will be coming from a jackpot management system while the Jackpot Summary and Jackpot Funds-In-Play reports will be coming from a game server. Reconciling the two sources of information can help verify that all systems are reporting correctly.

## 1.9 Relevant Standards

The following standards are relevant to this specification. Reports created following this specification **MUST** conform to these standards and their supporting standards.

Table 1.2 Relevant Standards

Standard	Description
XML	Extensible Markup Language Version 1.0 (W3C)
XSD	XML Schema Definition Version 1.0 (W3C)
URI	RFC 3986: Uniform Resource Identifier (URI): Generic Syntax
UUID	ISO/IEC 9834-8:2014: Generation of Universally Unique Identifiers
Jurisdictions	ISO 3166-1 alpha-2: Two-Character Country Codes ISO 3166-2: Country Subdivision Codes
Currencies	ISO 4217: Currency Codes
Date/Time	RFC 3339: Date and Time on the Internet: Timestamps
Email	RFC 2822: Internet Message Format

## 1.10 Reporting Requirements

### 1.10.1 XML Encoding

Reports created following this specification **MUST** be encoded using Extensible Markup Language (XML). To aid developers in generating programs that create or consume the reports, XML schemas accompany this specification. The schemas conform to the XML Schema Definition (XSD) standard. All reports created following this specification **MUST** be able to pass validation against the XML schemas. If there is a discrepancy between this specification and the XML schemas, the XML schemas take precedence.

The XML schemas are intended to be extensible so that jurisdiction-specific requirements can be easily met while still working within the framework of this specification. Thus, the XML elements defined within this specification **MAY** be extended by adding new syntactically valid enumerations, attributes, and sub-elements. However, existing enumerations and attributes should not be removed or modified, except changing optional attributes to required or adding default values to optional attributes. Likewise, existing elements should not be modified, except as noted above.

To avoid conflicts when extending the XML schemas, the new attributes and sub-elements **MUST** be contained in unique XML namespaces that do not conflict with the XML namespaces used in the XML schemas.

Similarly, new enumerations **MUST** be prefixed with a unique 3-character value that does not conflict with the prefix values used in the XML schemas. The unique prefix **MUST** be followed by the underscore character and then the new enumeration value; for example, ABC\_newEnum.

To help ensure interoperability, consumers of reports that were intended to be compliant with this specification should expect to receive unknown enumerations, attributes, and sub-elements; reports should not be rejected simply because they contain unknown attributes or sub-elements.

### 1.10.2 XML Namespaces

The XML schemas that accompany this specification use XML namespaces to help organize the schemas into logical units. These namespaces are an integral part of the XML schemas as well as this specification. The XML namespaces in the XML schemas **MUST NOT** be modified. To avoid ambiguity, XML namespaces and prefixes **MUST** be used in reports that are intended to be compliant with this specification.

The XML namespaces are constructed as Uniform Resource Names (URN) using the following identifiers separated by colons (:). When extending the XML schemas, the same methodology should be used for creating new namespaces.

Table 1.3

Identifier	Description	Example
URN	Indicates that the XML namespace value is a URN.	urn
Domain	Identifies the overall domain to which the XML namespace belongs.	IGSA
Protocol	Identifies the protocol with which the XML namespace is used.	RRI
Version	Identifies the version of the protocol in which the namespace was introduced.	1.0
Author	Identifies the author or creator of the XML namespace.	IGSA
Section	Identifies section of the protocol or extension with which the namespace is associated.	RRI

The following example demonstrates the construction of an XML namespace using this methodology.

*urn:IGSA:RRI:1.0:IGSA:rri*

The first three identifiers — URN, Domain, and Protocol — should be the same for all XML namespaces used with this specification. The remaining identifiers — Version, Author and Section — will vary between XML namespaces.

### 1.10.3 Optional Attributes and Elements

Within this specification, many attributes are identified as "optional". Similarly, 0 (zero) instances of many elements are allowed. This simply means that the specific attributes and elements are not required within reports for the reports to be syntactically correct.

Regulators may require that operators report some of these attributes and elements to meet the semantic requirements of the jurisdiction. Operators should be sure to ask their local regulators which of these attributes and elements are required within the regulator's jurisdiction. Similarly, regulators may specify default values for the optional attributes and elements — that is, they may specify the semantic meaning of the optional attributes and elements if they are omitted.

### 1.10.4 Case Sensitivity

Unless specified differently in an underlying specification, all protocol-defined constructs described within this specification are case-sensitive including element names, attribute names, enumeration values, code values, identifier values, data values, etc. Uppercase letters **MUST NOT** be considered equivalent to lowercase letters. For example, "ABC" must not be considered equivalent to "abc".

### 1.10.5 Minimum File Size

Consumers of reports **MUST** be able to receive and store a 4-megabyte or smaller XML-encoded report. This requirement is intended to promote interoperability by providing suppliers with a

known acceptable size for reports. There is no maximum size limit. However, reports, which are larger than 4 megabytes, may not be accepted by consumers.