

BEA WebLogic RFID Enterprise Server™

Product Overview

Version 2.0
Revised: October 2006

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 1

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Contents

1. Introduction and Roadmap

Document Scope and Audience 1-1
Guide to This Document 1-1
Related Documentation 1-2
New Features in This Release 1-3

2. WebLogic RFID Enterprise Server Overview

Overview of WebLogic RFID Technology 2-1
RFID Enterprise Server Capabilities 2-2
Overview of RFID Enterprise Server Components 2-2
Industry Standards Support 2-3
Accessing the RFID Enterprise Server Consoles 2-3

3. WebLogic RFID Enterprise Server Architecture

Architectural Overview 3-1
Edge Management 3-3
Event, Master Data, Data Exchange, and Reporting Services 3-5
Event Service 3-7
Supported Formats and Protocols 3-7
Supported Data Types 3-7
Event Service Architecture 3-8
Master Data Service 3-9
What Is Master Data? 3-9

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 3

Master Data Service Architecture 3-10
Data Exchange Service 3-11
Reporting Service 3-12
Serial Number Assignment Service 3-13

4. RFID Terminology

Index

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 4

CHAPTER 1

Introduction and Roadmap

The following sections describe the contents, audience, and organization of this guide—*WebLogic RFID Enterprise Server Product Overview*.

- "Document Scope and Audience" on page 1-1
- "Guide to This Document" on page 1-1
- "Related Documentation" on page 1-2
- "New Features in This Release" on page 1-3

Document Scope and Audience

This document provides an overview of WebLogic RFID Enterprise Server components and architecture.

The audience for this document includes RFID enterprise system administrators, support engineers, application developers, and anyone who wants an overview of WebLogic RFID Enterprise Server and how it can be used to manage RFID data in the enterprise.

Guide to This Document

This document is organized as follows:

- This chapter, "Introduction and Roadmap" describes the scope of this guide, summarizes new features, and lists related documentation.

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 5

- "WebLogic RFID Enterprise Server Overview" gives a brief overview of RFID Enterprise Server features.
- "WebLogic RFID Enterprise Server Architecture"provides a functional overview of RFID Enterprise Server and describes its component architecture.
- "RFID Terminology" defines key terms and acronyms.

Related Documentation

This document is a part of the WebLogic RFID Enterprise Server documentation set. The other documents are:

- *Installing WebLogic RFID Enterprise Server* describes how to install and configure WebLogic RFID Enterprise Server.
- *Understanding the Event, Master Data, and Data Exchange Services* describes the services that implement the EPC Information Services (EPCIS).
- *Generating WebLogic RFID Enterprise Server Reports* describes how to use the RFID Enterprise Server Reporting Service to display predefined RFID reports in a Web browser.
- *Query Subscription Administration Online Help* describes how to create queries for retrieving event data and master data from the data repository. Also, how to create subscriptions to retrieve query results on a specified schedule.
- *Master Data Administration Console Online Help* describes how to create and work with master data types and master data entries.
- *Edge Server Administration Console Online Help* describes how to use the Edge Server Administration Console to view and manage RFID Edge Servers in the enterprise.
- *Using the Serial Number Assignment Service* describes how to use the RFID Enterprise Server Serial Number Asignment service to provide pools of RFID serial numbers for assigning to EPC tags.
- *Using the Telemetry Console Extension* describes how to use the Telemetry Console Extension for graphically presenting real-time Edge Server and RFID device telemetry data. The Telemetry Console Extension is part of the RFID Edge Server Administration Console.
- *WebLogic RFID Enterprise Server Release Notes* lists known problems and workarounds in this release of the RFID Enterprise Server.

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 6

New Features in This Release

WebLogic RFID Enterprise Server 2.0 is the first release of RFID Enterprise Server from BEA Systems. This product builds on the ConnecTerra RFTagAware Enterprise Server 1.1, including the following new Web-based features:

- Support for the most recent EPCIS specification from EPCglobal, the *EPCglobal EPC Information Services (EPCIS) Version 1.0 Specification*. (That specification was technically complete but not yet ratified when WebLogic RFID Enterprise Server 2.0 was released.) See *Understanding the Event, Master Data, and Data Exchange Services*.
- The Web-based Query Subscription Administration Console, where you can create and subscribe to custom queries of EPCIS event data and associated master data. This is the means by which you can share RFID data with business partners. See Capture and Query APIs in *Understanding the Event, Master Data, and Data Exchange Services*. Also see *Query Subscription Administration Online Help*.
- The Reporting Service, including the Web-based Reporting Service Console, where you can generate the following built-in reports: history, missing assets, dwell time, and transit time. See *Generating WebLogic RFID Enterprise Server Reports*.
- The Master Data Service, including the Web-based Master Data Administration Console, where you can define master data types and master data entries that supply descriptions to help you understand and put into context the raw event data captured from the edge of the enterprise. See Master Data Service in *Understanding the Event, Master Data, and Data Exchange Services*. Also see *Master Data Administration Console Online Help*.
- The Edge Server Administration Console, including the Telemetry Console Extension, for monitoring and managing RFID Edge Servers and RFID devices at the edge. See *RFID Edge Server Administration Console Online Help* and *Using the Telemetry Console Extension*.

Note: The Serial Number Assignment Service, included in this release of RFID Enterprise Server was called the Provisioning Service in earlier releases.

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 7

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 8

CHAPTER 2

WebLogic RFID Enterprise Server Overview

This overview introduces the features and capabilities of WebLogic RFID Enterprise Server and shows how it fits into the suite of WebLogic RFID products. It includes the following sections:

- Overview of WebLogic RFID Technology
- RFID Enterprise Server Capabilities
- Overview of RFID Enterprise Server Components
- Industry Standards Support
- Accessing the RFID Enterprise Server Consoles

Overview of WebLogic RFID Technology

Radio Frequency Identification (RFID) is a generic term for technologies that use radio waves to identify objects. Typically, a unique identifier (such as an EPC code) that identifies an object, and perhaps other information, is stored on a microchip that is attached to an antenna (the chip and the antenna together constitute an RFID tag). The antenna enables the chip to transmit the identification information to a reader. The reader converts the radio waves reflected back from the RFID tag into digital information that computers can receive and process on behalf of user applications.

BEA WebLogic RFID technology includes the following products:

- WebLogic RFID Edge Server—Software deployed at remote sites where there are RFID readers, such as warehouses, distribution centers, and retail stores, for recording incoming

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Exhibit 2014
IPR2024-01416
Page 9

tag data and reporting that data to RFID Enterprise Server. The Edge Server can run stand-alone on a computer or be embedded in a growing range of other devices, including routers.

- WebLogic RFID Enterprise Server—Runs at the data center; gathers information from Edge Servers and RFID Compliance Express at the edge (remote sites); and processes, records, and presents the data.
- WebLogic RFID Compliance Express—An application that people at the warehouse or distribution center use to assign unique EPC codes, program them onto RFID tags, verify the application of those tags to cartons and pallets, and record the carton/pallet aggregation.

RFID Enterprise Server Capabilities

WebLogic RFID Enterprise Server provides services, resources, and APIs for managing and coordinating large, multi-location RFID deployments. It links real-time RFID data gathered at the edge of the enterprise with enterprise applications and provides the means for sharing enterprise RFID data with partners.

RFID Enterprise Server provides the means to:

- Configure and monitor RFID servers and devices at the edge, using a Web-based management console.
- Retrieve and persist event data generated from the edge.
- Create and manage master data that provides context for understanding event data.
- Create and schedule queries for delivering persisted event data; subscribe to reports based on the query results.
- Generate standard reports of EPCIS events.
- Assign blocks of serial numbers from a central location for distributed EPC tagging operations

WebLogic RFID Enterprise Server provides full support for the EPCglobal EPC Information Services (EPCIS) standard.

Overview of RFID Enterprise Server Components

WebLogic RFID Enterprise Server has the following services, components, and Web-based consoles (graphical user interfaces, or GUIs):

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Exhibit 2014
IPR2024-01416
Page 10

- The **Edge Server Administration Console** provides tools for monitoring and managing RFID Edge Servers.
- The **Event Service** captures EPCIS event data sent from the edge, stores it in the event repository, and makes the data available for retrieval.
- The **Master Data Service** and the **Master Data Administration Console** provide the means for creating and managing master data, which provides context for understanding raw event data.
- The **Query Subscription Administration Console** provides tools for creating queries on EPCIS event data and for subscribing to reports that present the returned data. The **Data Exchange Service** processes the queries and returns the results.
- The **Reporting Service** and the **Reporting Service Console** provide the means for generating predefined reports for internal use.
- The **Serial Number Assignment Service** and the **Serial Number Assignment Console** provides centralized management for allocating blocks of EPC codes to tag writing systems at the edge, so consecutive codes can be assigned to items in the supply chain at that location.

These components are discussed in more detail in Chapter 3, "WebLogic RFID Enterprise Server Architecture."

Industry Standards Support

RFID Enterprise Server complies with and extends industry standards, including those of EPCglobal, the international RFID industry standards group (see the EPCglobal Web site at `http://www.epcglobalinc.org/`).

RFID Enterprise Server implements the EPCglobal EPC Information Services (EPCIS) 1.0 specification, defining the structure of EPC-related event data and the mechanisms for data exchange.

Note: While this specification is still in draft form, BEA's active participation in defining this standard insures that BEA users will always be up to date as the standard evolves.

Accessing the RFID Enterprise Server Consoles

As introduced above, RFID Enterprise Server provides five GUIs, or consoles, for interacting with your RFID enterprise. These consoles are all Web-browser based, so you can access them from any computer with a Web browser and access to the enterprise network. The consoles are:

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Exhibit 2014
IPR2024-01416
Page 11

- Edge Server Administration Console
- Master Data Administration Console
- Query Subscription Administration Console
- Reporting Service Console
- Serial Number Assignment Console

When you install RFID Enterprise Server on Microsoft Windows, a link to the RFID Enterprise Server Home page is added to the **Start** menu. To access the Home page directly, open a Web browser and follow this link: `http://server:port/enterprise/`.

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Exhibit 2014
IPR2024-01416
Page 12

CHAPTER 3

WebLogic RFID Enterprise Server Architecture

The following sections describe the architecture WebLogic RFID Enterprise Server:

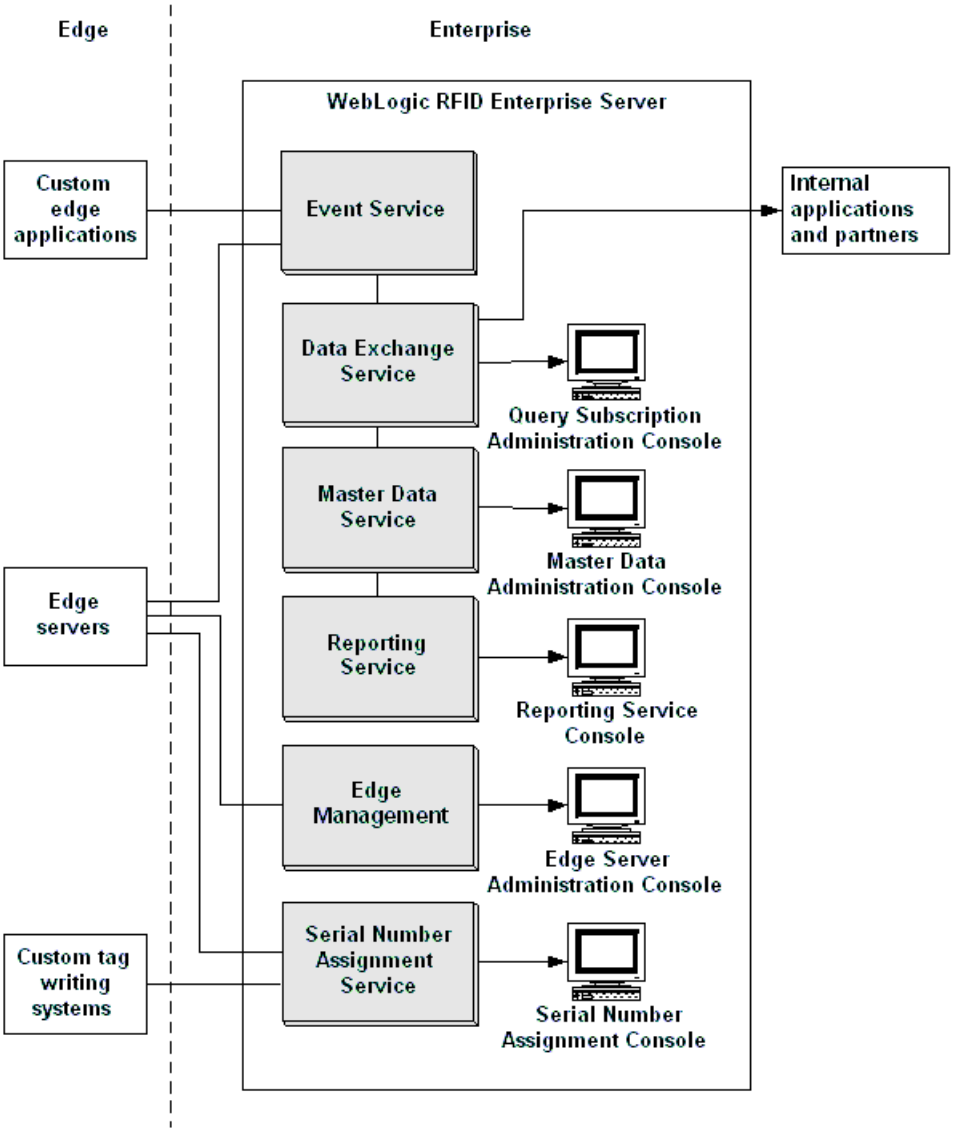
- Architectural Overview
- Edge Management
- Event, Master Data, Data Exchange, and Reporting Services
- Serial Number Assignment Service

Architectural Overview

Figure 3-1 provides an overview of WebLogic RFID Enterprise Server's components, services, and GUIs.

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Exhibit 2014
IPR2024-01416
Page 13

Figure 3-1 RFID Enterprise Server Architecture



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IPR2024-01416
Page 14

Applications running at the edge of the enterprise, such as the WebLogic RFID Edge Server, send EPCIS event data to the RFID Enterprise Server. This data provides basic information about when and where an RFID tag was read, plus additional information specific to the event type.

The Event Service receives the event data and interacts with the other subsystems to integrate the event data with master data (which provides business context) and to make the data available to the Reporting Service (for generating standard reports) and to the Data Exchange Service (for processing queries on the data and generating custom reports). Partners can subscribe to these custom reports.

The Serial Number Assignment Service provides the means for managing serial numbers distributed to the edge. The Edge Management component provides the means for monitoring and managing RFID Edge Servers.

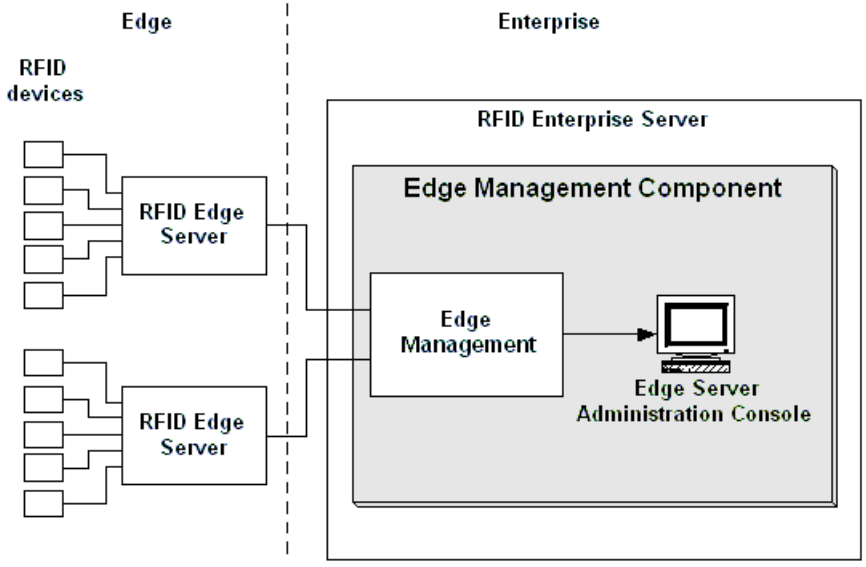
Together, these components, services, and GUIs provide a comprehensive set of tools for working with RFID data at the enterprise level.

Edge Management

You can configure, monitor, and manage all the WebLogic RFID Edge Servers and RFID devices in your enterprise by using the Edge Server Administration Console included with RFID Enterprise Server. See Figure 3-2.

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 15

Figure 3-2 Edge Management Architecture



You can use the Edge Server Administration Console to:

- Monitor the activities of all RFID Edge Servers and associated RFID devices in the enterprise
- Add, remove, and configure RFID devices, filters, and workflows
- Create, view, and edit ECSpec data objects and their subscribers
- View real-time RFID Edge Server and RFID device telemetry
- Export and import RFID Edge Server configuration objects
- Receive notification of failures or other alert conditions

For more information, see *Edge Server Administration Console Online Help*.

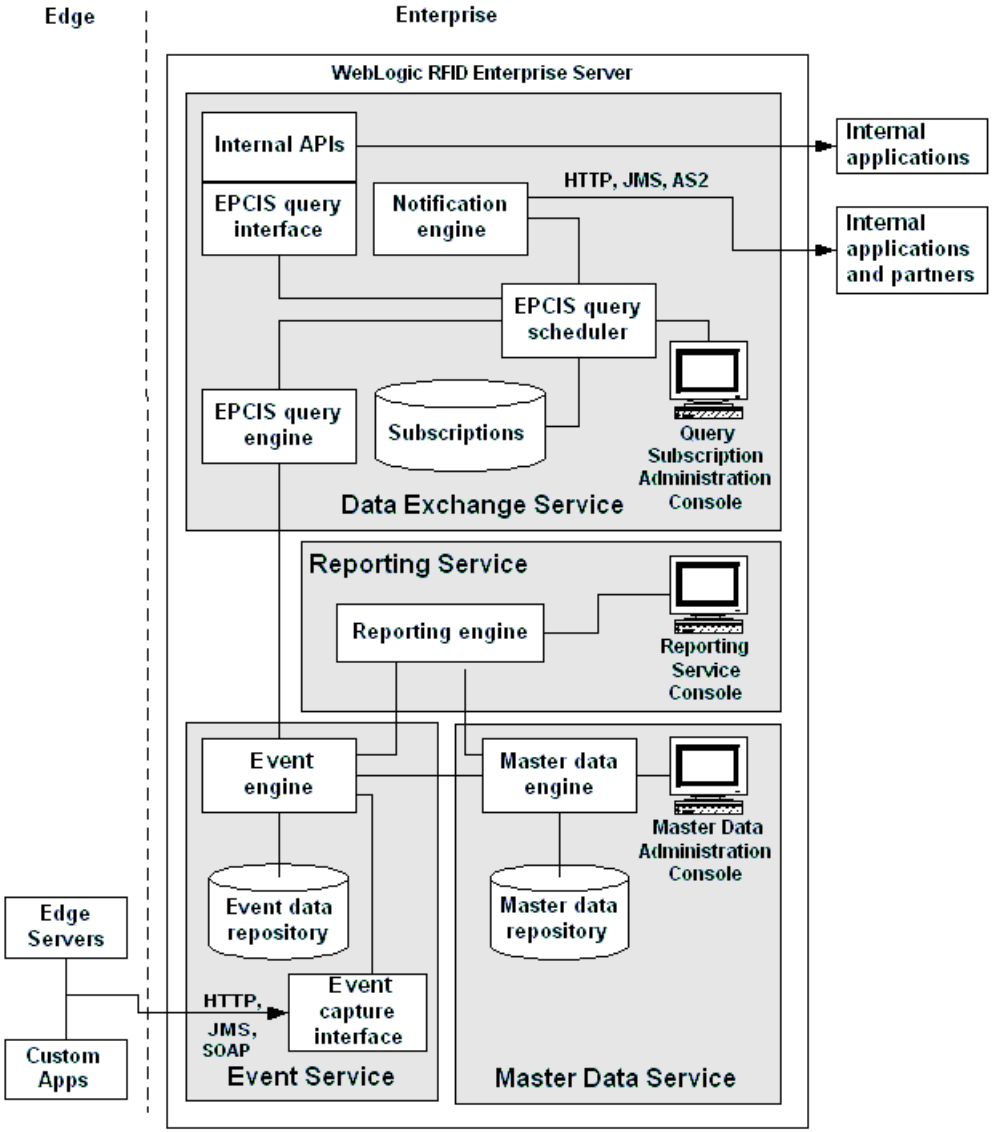
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Exhibit 2014
IPR2024-01416
Page 16

Event, Master Data, Data Exchange, and Reporting Services

RFID Enterprise Server Event Service, Master Data Service, Data Exchange Service, and Reporting Service are closely integrated. The architecture of those services is shown in Figure 3-3 and described in the sections following.

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Exhibit 2014
IPR2024-01416
Page 17

Figure 3-3 Event, Master Data, Data Exchange, and Reporting Services Architecture



Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 18

Together these services provide the means to distill event data generated from the edge, associate master data (business-context information) with it, and then query both sets of data to provide a human-readable history of locations and transactions for an item or group of items.

Note: BEA's implementation of these services is based on the technically complete, but not formally ratified as of August 2006, EPCglobal *EPC Information Services (EPCIS) Version 1.0 Specification*. A currently available document, *The EPCglobal Architecture Framework*, provides a high-level description of the EPCIS architecture; it is available at:

http://www.epcglobalinc.org/

Event Service

The Event Service captures EPCIS event data sent from the edge, stores it in the event data repository, and makes the data available for retrieval by the Data Exchange Service and the Reporting Service.

Supported Formats and Protocols

Incoming data is formatted as XML. The supported transport protocols for incoming data are JMS queues, HTTP, and SOAP.

Supported Data Types

At the edge, one or more WebLogic RFID Edge Servers or custom RFID applications can process and export EPCIS event data of the following event types. These types are all supported in RFID Enterprise Server.

- An ObjectEvent is an event that happens to an EPC-identified entity. For example, a tagged box passes through a portal. ObjectEvents include commissioning events (objects are tagged for the first time), decommissioning events (objects are permanently removed from use), and ordinary observations.
- An AggregationEvent is an event that happens to an aggregation of EPC-identified entities. An aggregation has a containing (parent) entity (for example, a pallet) and a series of contained (child) entities (for example, cases on a pallet). AggregationEvents include events in which children are added to a parent, events in which children are removed from a parent, or observations of an aggregation in which the children are unchanged.
- A QuantityEvent is an event that happens to a specified number of objects all having the same type, but where the individual instances are not identified. For example, a QuantityEvent could report that an event happened to 200 boxes of widgets, without

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Exhibit 2014
IPR2024-01416
Page 19

identifying specifically which boxes were involved. QuantityEvents can serve as a bridge between RFID systems and legacy invent‘ory systems that do not specify individuals.

- A TransactionEvent describes the association or disassociation of one or more EPC-identified entities to or from a specific business transaction. For example, four items are selected to fulfill a purchase order.

All of the above event types share a four dimensional data model, in which any event may carry data relating to any of the following facets: the object to which the event occurred, when the event occurred, where the event occurred, and why the event occurred (that is, in what business context).

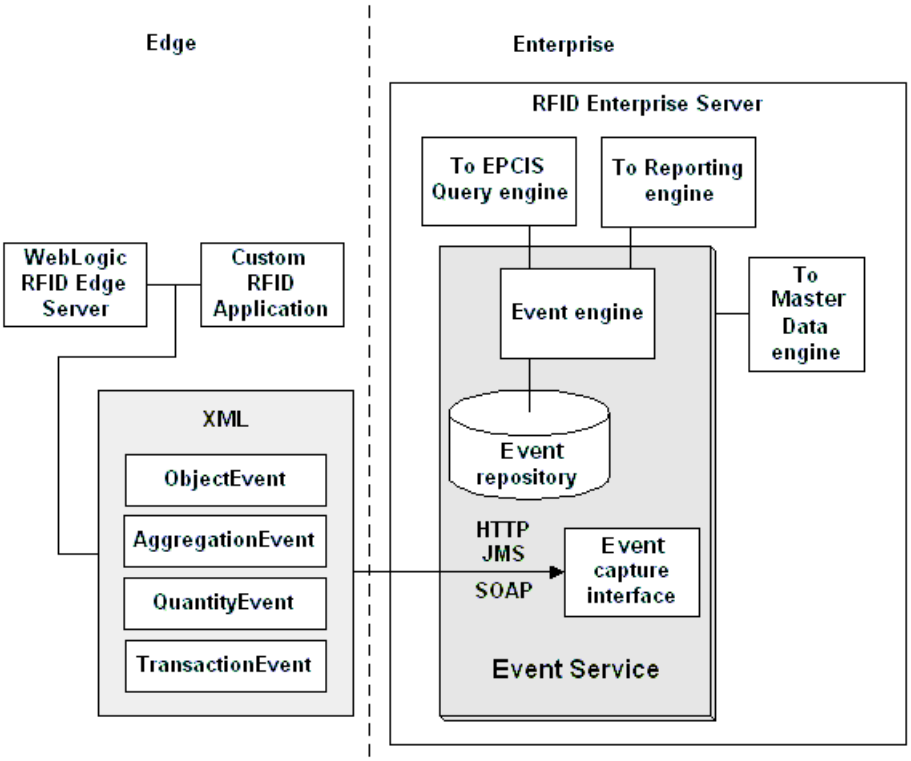
Event Service Architecture

As Figure 3-4 shows, the Event Service receives EPCIS event data from one or more WebLogic RFID Edge Servers or custom applications, stores the data in the event repository, and interacts with the engines in other subsystems to integrate the data with master data and to make the data available to the Reporting Service and the Data Exchange Service.

Note: There is no GUI associated with the Event Service because the service does not require interactive input from administrators or users. Once its database and input mechanisms are configured for its host WebLogic Server, it accepts properly formatted event data input from the edge, stores the data in the event repository, and interacts with the other services without further user intervention.

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 20

Figure 3-4 Event Service



For more information, see "Event Service" in *Understanding the Event, Master Data, and Exchange Services*.

Master Data Service

The Master Data Service provides the means for creating, managing, and storing master data, which provides contextual information for understanding EPCIS event data.

What Is Master Data?

Raw EPCIS event data can be difficult to decipher when you encounter it directly. For example, `bizLocation=urn:epc:id:sgln:0614141:33254.0` could be the part of an ObjectEvent that identifies where the event took place. Master data is descriptive information that can be associated with EPCIS event data to provide context that can be readily understood. For example,

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 21

the above location identifier might be associated with this master data: 123 Elm Street, Burlington, Iowa, US.

Master data consists of master data types and master data entries. A master data type defines the characteristics that master data entries based on that type can have. RFID Enterprise Server includes several predefined master data types that can be used for common business processes. You can use these master data types as is, modify them, or define custom master data types to suit your business processes. The predefined master data types include:

- Business location
- Business step
- Business transaction
- Business transaction type
- Disposition
- EPCClass
- Readpoints

Master Data Service Architecture

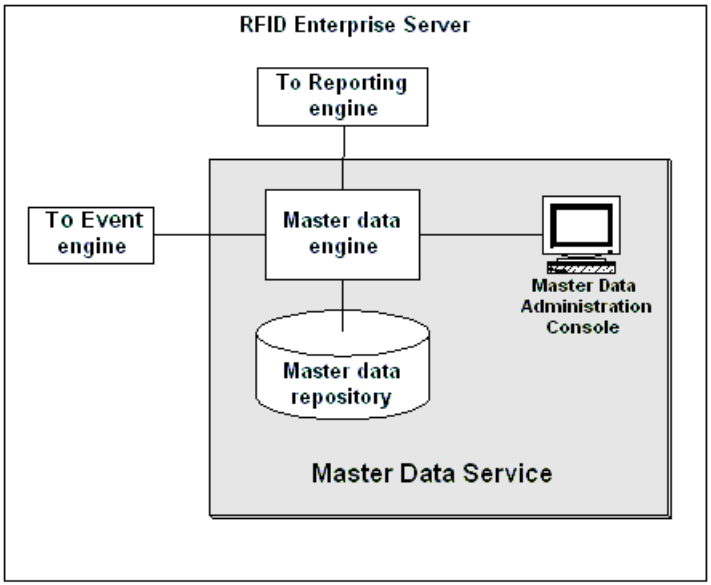
The Master Data Service architecture is illustrated in Figure 3-5.

Master data is stored in the master data repository and is mapped to associated events in response to requests from the Data Exchange service and the Reporting Service. For the Data Exchange Service, master data is not returned as part of a query, but it can be specified in a query as a means for filtering the results. For the Reporting Service, master data is returned as part of a report.

You define, create, import, export, and otherwise manage master data through the Master Data Administration Console.

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 22

Figure 3-5 Master Data Service Architecture



For more information, see "Master Data Service" in *Understanding the Event, Master Data, and Exchange Services* and *Master Data Administration Online Help*.

Data Exchange Service

The Data Exchange Service (see Figure 3-6) processes queries and returns results to subscribers. An authorized user can create a subscription for an internal client or an external client, such as a business partner.

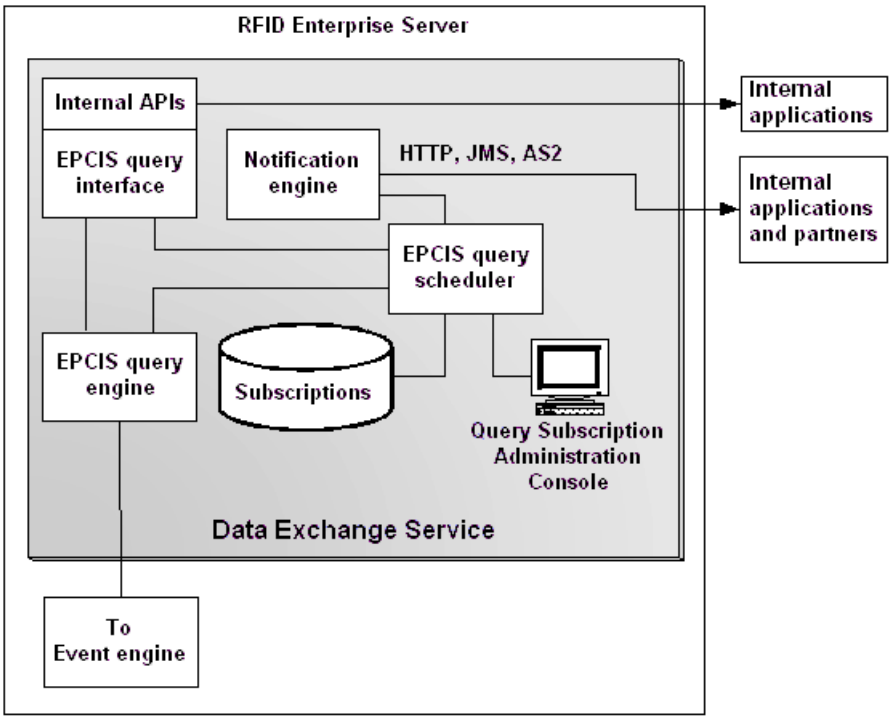
Each subscription defines the following:

- Query parameters
- Schedule when the query will be run
- Destination where the query results are to be sent

Each time a query is run, the results are sent in XML format to the destination specified for that subscription via JMS, HTTP, or AS2.

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 23

Figure 3-6 Data Exchange Service



You can create and manage subscriptions interactively using the Query Subscription Administration Console.

RFID Enterprise Server also exposes a query interface that allows applications to get access to EPCIS event data and associated master data. The query interface is available as a Web service for applications co-deployed with RFID Enterprise Server. Applications can query for events based on time, object identity (including EPC), location, and other dimensions. Queries may also refer to master data, allowing queries such as “find all events that took place in Chicago.”

Reporting Service

RFID Enterprise Server includes a number of built-in reporting options for viewing data in the event repository. The Reporting Service (shown in Figure 3-7) provides four types of reports, which are accessed via the Reporting Service Console:

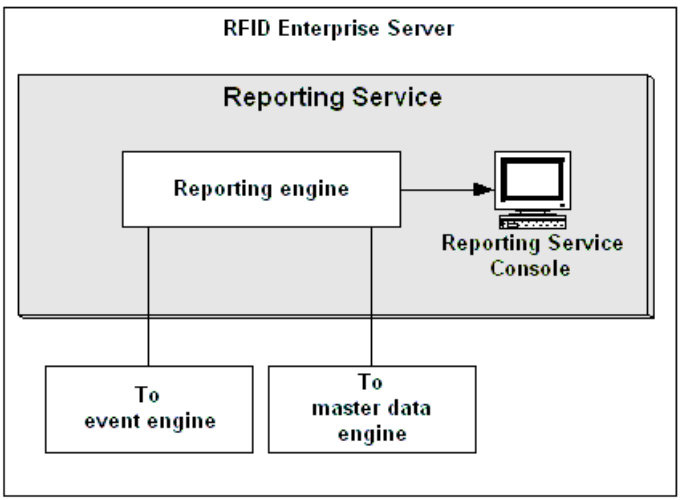
- History - where and when were assets last seen, and in what context

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 24

- Missing assets - which assets have not been seen since the specified time, and optionally, at the specified location
- Dwell time - how long have assets remained at the specified location.
- Transit time - how long does it take for assets to move from one location to another

There is no programmatic access to the Reporting Service; the Reporting Service console is the only way to generate reports. Therefore, you can view reports in and print reports from your Web browser.

Figure 3-7 Reporting Service Architecture



For more information, see *Generating WebLogic RFID Enterprise Server Reports*.

Serial Number Assignment Service

The Serial Number Assignment Service (shown in Figure 3-8) provides centralized management for allocating blocks of unique serial numbers for tag writing systems running in multiple, remote facilities.

Note: In previous releases of RFID Enterprise Server, the Serial Number Assignment Service was called the Provisioning Service.

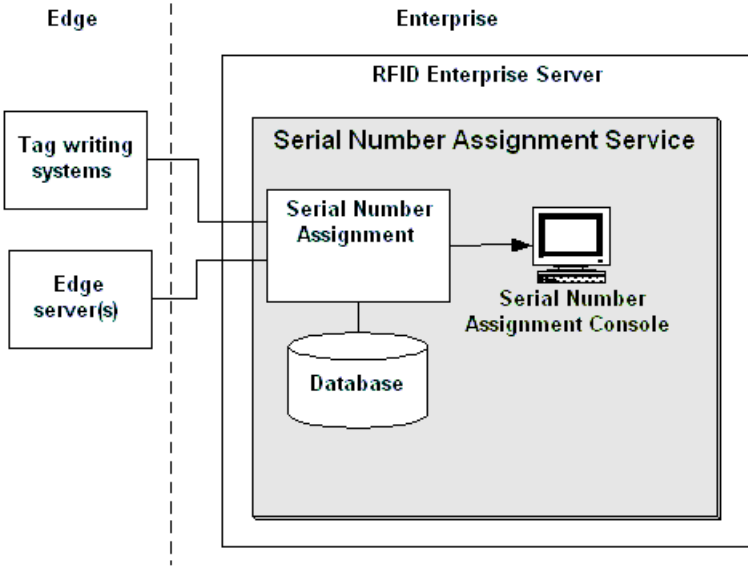
Tagging applications running at the edge can request a block of unique object identities, and the RFID Enterprise Server responds, using a centralized database to insure that no serial number is

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Exhibit 2014
IPR2024-01416
Page 25

assigned twice. RFID Enterprise Server can assign serial numbers in large blocks, which allows tagging operations to proceed at the edge with only infrequent communication with the enterprise server, or in small blocks, as needed. You can set up business rules that govern how serial numbers are assigned, such as reserving certain ranges of numbers for certain locations, applying different rules based on which product is being tagged, and so on.

For EPC-based applications, RFID Enterprise Server can assign SGTIN- and SSCC-type EPCs. The administration console provides a full history of past assignments, providing a centralized view of serial number consumption by product, by location, and so on.

Figure 3-8 Serial Number Assignment Service



For more information, see *Using the Serial Number Assignment Service*.

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 26

CHAPTER 4

RFID Terminology

Key terms and acronyms that you will encounter throughout the RFID Enterprise Server documentation include the following.

For terminology more specific to RFID operations at the edge, see RFID Terminology in *WebLogic RFID Edge Server Product Overview*.

action

The lifecycle stage of the activity described by an EPCIS event (limited to `ADD`, `DELETE`, or `OBSERVE`).

AggregationEvent

An EPCIS event that describes objects that are physically related to one another such that there is a containing, parent, entity (for example, a pallet) and a series of contained, child, objects (for example, cases on a pallet).

Applicability Statement 2 (AS2)

A specification for Electronic Data Interchange (EDI) between business partners using HTTP or HTTPS as the transport mechanism.

AS2

See Applicability Statement 2 (AS2).

company prefix

In the GS1 system of codes, an identifier assigned to a managing entity (company or organization).

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 27

dwell time

The time an object resides at a given location.

edge

Networked computers and devices operating at the "edge" of an enterprise, that is, outside the traditional enterprise data center. Edge servers are close to physical operations in warehouses, distribution centers, and factories, as opposed to corporate headquarters.

Electronic Product Code (EPC)

Method of product identification that uniquely identifies objects (items, cases, pallets, locations, and so on) in the supply chain and can be used to track them. EPCs are often written to RFID tags.

EPC

See Electronic Product Code (EPC).

EPC Class

See EPC ID pattern.

EPC ID pattern

A URI-formatted string that specifies a set of EPCs of a particular type. EPC ID patterns are used by the Serial Number Assignment Service to check EPCs in and out of pools, and by EPCIS to indicate which item is involved in a QuantityEvent. Also called EPC Class.
Example: `urn:epc:idpat:sgtin:0614141.100734.[400-499].`

EPCglobal

RFID industry standards group. See the EPCglobal Web site at `http://www.epcglobalinc.org/`.

EPCIS

See EPC Information Service (EPCIS).

EPC Information Service (EPCIS)

Refers to both a standard definition of business-level EPC data and a standard set of services and interfaces for capturing and querying that data. EPCIS is defined by an EPCglobal standard.

Implemented in WebLogic RFID Enterprise Server as several services, which collectively are responsible for capturing event information, storing it, and providing access to the stored event data and master data. See also EPCIS event.

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 28

EPCIS event

Observation of EPC-related activity, expressed at the business level. EPCIS events typically have four informational dimentsions: what (which EPCs or other entities participated in the event), when (the date and time of the event), where (the location where the event took place and where the entities are expected to be afterward), and why (what business transaction was taking place and what is the business condition of the entities afterward).

An EPCIS event consists of an event type and one or more named event fields.

event data

A set of EPCIS events.

event field

A named field within an EPCIS event, such as Event Time, EPC, Business Step, etc. The value of a field may be a primitive type (such as an integer or timestamp), an identifier for which there may be associated master data, or a list of primitive types or identifiers.

event type

One of several possible EPCIS event structures a given event conforms.

Extensible Markup Language (XML)

Markup language used to describe and transmit data across many different systems. For more information, see `http://www.w3.org/TR/REC-xml`.

Global Trade Item Number (GTIN)

A code defined in the GS1 (formerly known as EAN.UCC) General Specifications identifying a particular class of object such as a product. It is made up of a company prefix and an item reference. (For information about the standards organization GS1, see their Web site at `http://www.gs1.org/`.)

GTIN

See Global Trade Item Number (GTIN).

item reference

An identifier assigned to a particular class of objects or items.

JMS

Java Message Service.

master data

A set of master data types, together with the master data attributes associated with master data entries of those types.

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 29

Master data is information that can be associated with event data to provide descriptive context for interpreting the event data. For example, the following value in an ObjectEvent generated at the edge identifies where the event took place:

```
bizLocation=urn:epc:id:sgln:0614141:33254.0
```

The master data that is associated with that `bizLocation` might be123 Elm Street, Burlington, Iowa, US. The structure of master data is a set of name/value pairs.

In RFID Enterprise Server, you create and manage master data using the Master Data Administration Console. The master data is associated with event data by the Reporting Service and by the Data Exchange Service.

master data attribute

A name/value pair associated with an individual master data entry. The name part of a pair is a QName. The value part of a pair may be a value of arbitrary type.

master data child

A master data entry that is assigned as an attribute of a master data entry that serves as its parent. The parent/child relationship indicates that the parent contains the child. For example, the parent “shipping_carton_ABC” can contain the children “box1,” “box2,” “box3,” etc.

master data entry

An identifier that names one of the alternatives modeled by a master data type.

A master data entry identifies a real entity tracked in a supply chain. A master data entry is always based on a master data type, which defines the characteristics the master data entry can have. For example, a master data entry based on the Business Location type might contain the following information:

```
- ID = urn:epcglobal:epcis:mda:rsale:1214171:30054.0
- name = “My Location”
- address = “123 Elm Street”
- city = “Burlington”
- state = “Iowa”
- country = “US”
```

master data type

A named template that specifies a set of master data attribute names for a set of related master data entries. Informally used to refer both to the master data type and the set of all the master data entries that populate it.

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 30

ObjectEvent
An EPCIS event that captures information pertaining to one or more physical objects identified by EPCs.

QName
A *qualified name* as defined in *Namespaces in XML*, available at `http://www.w3.org/TR/REC-xml-names`.

QuantityEvent
An event that happens to a specified number of objects all having the same type, but where the individual instances are not identified. For example, a QuantityEvent could report that an event happened to 200 boxes of widgets, without identifying specifically which boxes were involved. QuantityEvents can serve as a bridge between RFID systems and legacy inventory systems that do not identify individuals.

Radio Frequency Identification (RFID)

Method of identifying unique items by using radio waves. Typically, an RFID reader communicates with an RFID tag, which holds digital information in a microchip.

reader
See RFID reader.

RFID
See Radio Frequency Identification (RFID).

RFID device
Generic term for an RFID reader or an RFID-enabled printer.

RFID Edge Server
Software deployed at remote sites where there are RFID readers (such as warehouses, distribution centers, and retail stores) for monitoring and filtering incoming tag data, for managing devices (such as configuring and monitoring RFID readers and printers), and for enabling local workflows.

RFID reader
Generic term for a hardware device, also referred to as a physical reader, which reads EPC values from or writes EPC values to RFID tags. The reader has one or more antennas, which emit radio waves and receive signals back from the tag.

RFID tag
A microchip connected to one or more antennas, packaged so that it can be attached to an object to be tracked. The tag receives and sends signals to RFID readers.

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 31

Serialized Global Location Number (SGLN)
A standard for identifying unique physical locations. It is made up of a company prefix and a self-assigned *location reference*.

Serialized Global Trade Item Number (SGTIN)
An EPC identity type. It is made up of a GTIN and a *serial number* (unique identifier assigned to an individual object).

Serial Shipping Container Code (SSCC)
Serial Shipping Container Code, an EPC identity type and code defined in the GS1 (formerly known as EAN.UCC) General Specifications. It consists of a company prefix and a *serial reference* (identifier assigned to a specific shipping unit).

SGLN
See Serialized Global Location Number (SGLN).

SGTIN
See Serialized Global Trade Item Number (SGTIN)

Simple Object Access Protocol (SOAP)
A protocol for exchanging XML messages, usually via HTTP. See `http://www.w3.org/TR/soap`.

SOAP
See Simple Object Access Protocol (SOAP).

SSCC
See Serial Shipping Container Code (SSCC).

subscription
In the context of configuring report generation, a subscription is defined by a query and a corresponding set of query parameters that provide values for the variable parts of the query, an endpoint URL that identifies the subscriber and delivery transport, and controls that determine when a report should be generated.

tag
See RFID tag.

TransactionEvent
An EPCIS event that describes the association or disassociation of physical objects to a business transaction.

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 32

Uniform Resource Identifier (URI)

A unique name that represents the address or location of a resource, typically on the Internet. URIs are used by the RFID Edge Server to specify the destinations for asynchronous notifications.

See also Uniform Resource Locator (URL) and Uniform Resource Name (URN). For more information about URIs, URLs, and URNs, see http://www.w3.org/Addressing/.

Uniform Resource Locator (URL)

A URI that identifies a resource via a representation of its primary access mechanism (for example, its network "location"), rather than identifying the resource by name or by some other attribute(s) of that resource. See also Uniform Resource Identifier (URI).

Uniform Resource Name (URN)

A URI that is required to remain globally unique and persistent even when the resource ceases to exist or becomes unavailable. See also Uniform Resource Identifier (URI).

URI

See Uniform Resource Identifier (URI).

URL

See Uniform Resource Locator (URL).

URN

See Uniform Resource Name (URN).

Web Services Description Language (WSDL)

An XML format for describing Web services. For more information, see `http://www.w3.org/TR/wsdl`.

WSDL

See Web Services Description Language (WSDL).

XML

See Extensible Markup Language (XML).

XSD

See XML Schema Definition (XSD).

XML Schema Definition (XSD)

An XML-based language used to describe and control XML document contents. For more information, see `http://www.w3.org/XML/Schema`.

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 33

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 34

Index

A

action 4-1
AggregationEvent 3-7, 4-1
API
    EPCIS 4-3
Applicability Statement 2 4-1
architecture
    Data Exchange Service 3-11
    Edge Management 3-3
    Event Service 3-7
    Event Service, Master Data Service, Data Exchange Service, and Reporting Service 3-5
    Master Data Service 3-9
    Reporting Service 3-12
    Serial Number Assignment Service 3-13
architecture, Event Service 3-8
architecture, RFID Enterprise Server
    overview 3-1
AS2 4-1

C

company prefix 4-1
components of RFID Enterprise Server 2-2
consoles, RFID Enterprise Server 2-3

D

Data Exchange Service 3-5
data types, supported 3-7
dwell time 4-2

E

edge 4-2
edge management 3-3
Electronic Product Code 4-2
EPC 4-2
EPC Class 4-2
EPC ID pattern 4-2
EPC Information Service (EPCIS) 4-2
EPCIS 4-2
EPCIS event 4-3
event data 4-3
event field 4-3
Event Service 3-5, 3-7
    supported data types 3-7
    supported formats and protocols 3-7
event type 4-3

F

features
    new 1-3
    RFID Enterprise Server 2-2

G

Global Trade Item Number 4-3
GTIN 4-3

I

item reference 4-3

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 35

J

JMS 4-3

M

master data 4-3
    description 3-9
master data attribute 4-4
master data child 4-4
master data entry 3-10, 4-4
Master Data Service 3-5, 3-9
master data type 3-10, 4-4
master data types, predefined 3-10

O

ObjectEvent 3-7, 4-5

Q

QName 4-5
QuantityEvent 3-7, 4-5
queries 3-11

R

reader 4-5
Reporting Service 3-5, 3-12
RFID 4-5
RFID device 4-5
RFID Edge Server 4-5

S

Serial Number Assignment Service 3-13
Serial Shipping Container Code (SSCC) 4-6
Serialized Global Location Number 4-6
Serialized Global Trade Item Number (SGTIN) 4-6
SGLN 4-6
SGTIN 4-6
Simple Object Access Protocol (SOAP) 4-6
SOAP 4-6
SSCC 4-6
standards, industry 2-3
subscription 3-11, 4-6

T

TransactionEvent 3-8, 4-6

U

Uniform Resource Locator 4-7
Uniform Resource Name 4-7
URL 4-7
URN 4-7

W

WSDL 4-7

X

XML Schema Definition (XSD) 4-7
XSD 4-7

Adasa Inc.
Exhibit 2014
IPR2024-01416
Page 36