Technical Specification

Application Name

<Update to reflect the application name>

Document Version: 0

<Update to reflect the document version, not the template version.>

Current Version Date: 10/18/2017

<Version Created date>

Revision History

<Add details for the current version at the top so the users can easily see the changes>

Date	Version	Description
05/17/2019	2.1	Updates to <servicename> to support <project name>
10/18/2018	2.0	Update to Use Model for <servicename>
05/06/2018	1.9	Included use model for <servicename> Added a new service <servicename> to support <project name> Additional fault code <fault code> added

TABLE OF CONTENTS

1 Introduction

1.1 Purpose

The purpose of this document is to capture the information a developer would need to complete interface development. This document establishes a basis for initiation and development of the services.

The technical specifications capture the service information, element description, formatting conditions of the data that is essential for the development of interfaces.

1.2 Related Documents

For more information on current or past project initiative releases that impacted the technical specification, please refer to the release planning page at
http://www.caiso.com/informed/Pages/ReleasePlanning/Default.aspx

1.3 Reference Documents

Please refer to the following specifications and documents for help with developing the interface.

<Please do not modify this section. Please replace the highlighted app name below with the actual application URL from the developer site>

Document Name	Document Link	Document Details
B2B Security Specification	https://developer.caiso.com/Documents/ISO%20B2B%20Security%20Specification.pdf	B2B Security Standards Specification
Acceptable dateTime Format	https://developer.caiso.com/Documents/ISO%20B2B%20Security%20Specification.pdf	Acceptable formats for specifying the dateTime data type for submit and request services
Application Access Endpoints, Technical documents & Sample files	https://developer.oa.caiso.com/Pages/application.aspx?app=<app name>	Developers are encouraged to test the interface against the market simulation environment (MAP Stage). Please refer to the developer site for Map stage URLs, Production URLs, technical specification, Service Artifacts, Sample Files etc.
User/Certificate Role Provisioning	https://developerint.oa.caiso.com/pages/AIM.aspx	AIM is an application that supports provisioning of the roles necessary for the certificate to interface with the ISO's applications.

2 Document Release Notes

2.1 *Version x.x*

<Version section captures the services that are impacted along with the XSD used and the major/minor version supported specific to this release >

This document release version affects the following system data interface specifications:

Project	New or Update	Service	Schema	Version # Major	Version # Minor
Ex: EIM 2019	*Ex:* New	*Example:* submitDataService_v1	*Example:* DataService_v1.xsd	*Ex:* 1	*Ex:* v20191001
CCDEBE	Update	RequestDataService_v1	RequestDataService_v1.xsd	1	V20191001
			ReplyDataService_v1.xsd	1	V20181001

3 Consolidated List of Supported Artifacts

<This section captures the versions of Services that are supported by the application interface >

This section shows all the supported service versions for this application:

Data Set	Supported Service Versions
Example: Market Schedules	*Example:* retrieveMarketSchedules_v2.wsdl retrieveMarketSchedules_v2_DocAttach.wsdl retrieveMarketSchedules_v3.wsdl retrieveMarketSchedules_v3_DocAttach.wsdl
Submit Bids	submitRawBidSet_v2.wsdl – Deprecated upon CCDEBE Deployment submitRawBidSet_v2_DocAttach.wsdl – Deprecated upon CCDEBE Deployment submitRawBidSet_v3.wsdl submitRawBidSet_v3_DocAttach.wsdl

	submitRawBidSet_v4.wsdl – Active upon CCDEBE Deployment
	submitRawBidSet_v4_DocAttach.wsdl – Active upon CCDEBE Deployment

4 Services

4.1 *Service Description:* *<Example:EIM RT Interchange Schedule Data>*

<This section will repeat for all wsdls that are used in this application>

The following sections are relevant for both RPC and DocAttach service types.

4.1.1 Operation Details

The service has one operation with three message types. All input and output messages are in XML format.

Refer to Appendix B for time data logic on data horizon window.

Operation	Message Types	Message	WSDL	XSD
Example: SubmitDataService _APPv1	Input	submitDataService_v1	submitDataService_ v1.wsdl submitDataService_ v1_DocAttach.wsdl	DataService_v1.xsd
	Output	Standard reply output		StandardOutput.xsd
	Fault	faultReturnType		StandardOutput.xsd

4.1.2 Certificate Roles Requirement

This section should provide a matrix for the different roles that can access this particular service.

<In this section, provide details around the roles that can use the service being discussed>

Example:

Certificate Role Name	AIM Display Role Name	Role Details
App_sibr_write_ext:<SC or Access Groups>	SIBR Read/Write	This role can use this service to submit data to SIBR

4.1.3 Use Model

<In this section, provide details on how the service is expected to be used, for submit service how often is the data required to be submitted, what type of data should be submitted, how the data should be submitted

For the request services this should include any limitation such as time frame of request, how a request should be executed

Acceptable Use Policy should be included in this section>

Example:

ID#	Use Model Description
001	The data set should be submitted in a rolling interval basis
002	If changes occur within the data only the incremental information should be submitted
003	The file attachment shall not exceed 15 MB

4.1.4 Element Table

<The element column below should be automatically generated from the XSD. Add the "Application Specific Comments" column to the right and populate with details only for those elements that have specific usage.>

The table below describes any application specific logic that is validated for the elements in the service artifact.

Element	Application Specific Comments
Example: TimeDate	*Example:*
Source	
Version	Date reflecting the release this latest version update was related to. Valid value is: **v20171001**
MessagePayload	
MessagePayload.MeterMeasurementData	

Element	Application Specific Comments
Example: measurementType	*Example:* Type of the measurement. **Valid values are: LOAD or GEN or MBMA*** ***Meter Befor Meter After (MBMA) can only be used upon ESDER 2 project activation for DRS Replacement.** Measurement types are the same as channel ID in current metering solution. LOAD is channel 1 and GEN is channel 4. The resource type and sub type to measurement type mapping is provided in the table below. The resource ID should always be entered in the XML element that matches the resource type classification in the MF. For example, when submitting data for an energy storage unit, the resource ID should always be included in RegisteredGenerator element even though the measurementtype can be either LOAD or GEN. <table><tr><th>Master File RES TYPE</th><th>Master File RES SUBTYPE</th><th>XML Element</th><th>Measurement Type</th></tr><tr><td>GEN</td><td>All Generators including Pumps, Storage etc.</td><td>RegisteredGenerator</td><td>GEN or LOAD</td></tr><tr><td>TG</td><td></td><td>RegisteredGenerator</td><td>GEN</td></tr><tr><td>LI</td><td></td><td>RegisteredGenerator</td><td>GEN or LOAD</td></tr><tr><td>LOAD</td><td></td><td>RegisteredLoad</td><td>LOAD</td></tr><tr><td>TIE</td><td></td><td>Flowgate</td><td>GEN or LOAD</td></tr></table>

5   Fault Return Codes

This section describes the fault codes that are returned for any service requests that does not pass all the validation rules.

<The table below should list all the possible faults that the API can encounter while interfacing with the application>

Fault Code	Fault Description	Fault Details
1000	Invalid Resource	The resource specified is not valid for the date specified
1015	Invalid Resource type	The resource id is associated to a wrong XML element for resource type
1029	Invalid SC ID or ACL Group	The SC ID or ACL Group being specified is not provisioned to the user
<SOAP Fault>	MessageHeader version is missing or invalid	MessageHeader version number is required for backwards compatibility: "v20171001"