

**Oracle Utilities Testing Accelerator**  
**Reference Guide for Oracle Utilities Meter Data  
Management/ Oracle Utilities Smart Grid  
Gateway v2.4.0.0.2**  
Release 6.0.0.3.1  
**F50108-01**

November 2021

F50108-01

Copyright © 2000, 2021 Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

**U.S. GOVERNMENT END USERS:** Oracle programs (including any operating system, integrated software, any programs embedded, installed or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software" or "commercial computer software documentation" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

# Contents

---

---

Preface.....	i
Related Documents .....	ii
Updates to the Documentation.....	ii
Documentation Accessibility .....	ii
Conventions.....	iii
Abbreviations .....	iii

## Chapter 2

Function Library Reference .....	ii-1
OUSGLIB1 .....	ii-1

## Chapter 1

Component Reference .....	1-1
Oracle Utilities Meter Data Management Components .....	1-2

## Chapter 3

Sample Work Flows .....	2-1
Demo Interval Flow .....	2-2
Demo Scalar Flow.....	2-2
Sample Flows in Oracle Utilities Smart Grid Gateway.....	2-3
Itron Sample Flow .....	2-3
Landis + Gyr Sample Flow.....	2-4
Echelon Sample Flow.....	2-5
Sensus Sample Flow.....	2-6
SSN Sample Flow.....	2-7
MDM-SGG_Cloud_Environment_Sanity.....	2-7
Running Sample Flows .....	2-9
Pre-requisites.....	2-9
Setting Up Sample Flows .....	2-9

## Appendix A

Inbound Web Services .....	3-1
Oracle Utilities Market Settlements Management .....	3-7
Oracle Utilities Smart Grid Gateway.....	3-11
CX REST API.....	3-16

---

---

# Preface

Welcome to the Oracle Utilities Testing Accelerator Reference Guide for Oracle Utilities Meter Data Management/Oracle Utilities Smart Grid Gateway v2.4.0.0.2.

The guide describes the Oracle Utilities Meter Data Management (MDM) v2.4.0.0.2/ Oracle Utilities Smart Grid Gateway (SGG) v2.4.0.0.2 components and function libraries used to create those components in Oracle Utilities Testing Accelerator (OUTA).

**Important!** This guide is applicable for Oracle Utilities Testing Accelerator v6.0.0.3.0 and higher.

This preface includes the following sections:

- [Audience](#)
- [Related Documents](#)
- [Updates to the Documentation](#)
- [Documentation Accessibility](#)
- [Conventions](#)
- [Abbreviations](#)

# Audience

This guide is intended for QA/Test Engineers and Automation Developers to understand the various components and libraries available for them to automate the business test flows for Oracle Utilities Meter Data Management/ Oracle Utilities Smart Grid Gateway using Oracle Utilities Testing Accelerator for Oracle Utilities Meter Data Management/Oracle Utilities Smart Grid Gateway.

## Related Documents

For more information, refer to the following Oracle resources.

### Release Notes

- *Oracle Utilities Testing Accelerator Release Notes*

### Installation and Administration Guide

- *Oracle Utilities Testing Accelerator Installation and Administration Guide*

### User and Reference Guides

- *Oracle Utilities Testing Accelerator User's Guide*
- *Oracle Utilities Testing Accelerator Upgrade Guide*
- *Oracle Utilities Testing Accelerator Licensing Information User Manual*

## Updates to the Documentation

Documentation updates are posted on the [Oracle Technology Network](#) page as they become available.

## Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the [Oracle's Accessibility Program](#) website.

### Access to Oracle Support

Oracle customers have access to electronic support through [My Oracle Support](#). If you are hearing impaired, visit the [Oracle Accessibility Learning and Support](#) website for more information.

# Conventions

The following text conventions are used in this document:

---

Convention	Meaning
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

---

# Abbreviations

The following terms are used in this document:

---

Term	Expanded Form
MDM	Oracle Utilities Meter Data Management
SGG	Oracle Utilities Smart Grid Gateway
OUTA/UTA	Oracle Utilities Testing Accelerator

---

# **Chapter 2**

---

## **Function Library Reference**

This chapter lists the Oracle Utilities Meter Data Management/Oracle Utilities Smart Grid Gateway function library **OUSGGLIB1** and the functions available to create components and flows in Oracle Utilities Testing Accelerator Workbench for testing the Oracle Utilities Meter Data Management/Oracle Utilities Smart Grid Gateway application.

### **OUSGGLIB1**

The OUSGGLIB1 library comprises functions that are used to generate SSNExternalID and SSNMacID. This section provides a list of functions included in the OUSGGLIB1, along with their usage details.

#### **SSNExternalID()**

Generates a sixteen character String by concatenating 'EXTERNAL\_ID' with randomly generated five character value.

**Example:**

```
SSNExternalID()
```

Input Parameters: N/A

Return Parameter: SSNExternalID - String- Sixteen Character string

#### **SSNMacID**

Generates a sixteen character String in the format mentioned below.

**Example:** “KN:EG:NW:UT:FA:YZ”

```
SSNMacID()
```

Input Parameters: N/A

Return Parameter: SSNMacID - String - Sixteen Characters string where colon after every two characters

# **Chapter 1**

---

## **Component Reference**

This chapter lists the Oracle Utilities Meter Data Management/Oracle Utilities Smart Grid Gateway starter components available to create flows in Oracle Utilities Testing Accelerator Workbench for testing the Oracle Utilities Meter Data Management/Oracle Utilities Smart Grid Gateway application.

The chapter includes the following sections:

- [Overview](#)
- [Oracle Utilities Meter Data Management Components](#)
- [Oracle Utilities Smart Grid Gateway Components](#)

# Overview

Oracle Utilities Testing Accelerator for Oracle Utilities Meter Data Management/Oracle Utilities Smart Grid Gateway is a test starter pack built on top of Oracle Utilities Testing Accelerator that generates test automation scripts using Oracle Utilities Testing Accelerator Workbench.

Oracle Utilities Testing Accelerator for Oracle Utilities Meter Data Management/Oracle Utilities Smart Grid Gateway contains out-of-the-box product-specific components used to build new test flows in Oracle Utilities Testing Accelerator Workbench to test the Oracle Utilities Meter Data Management/Oracle Utilities Smart Grid Gateway application. These out-of-the-box components correspond to specific business entities, such as business objects, service scripts, or business services used for interfacing with the application. These components can be used as available or can be extended to create new components that can be used to create flows. Consider this pack to be a starter kit which can be expanded and built upon. A few sample flows are included as examples.

For more information about creating components and flows, refer to the *Oracle Utilities Testing Accelerator User's Guide*.

## Oracle Utilities Meter Data Management Components

This section lists the starter components available in Oracle Utilities Meter Data Management.

**Pre-requisites:** Inbound Web Service using the respective business object should be available in the application.

**Additional Notes:** Failure while creating, reading, or updating the component is logged in the test execution report, thus facilitating debugging/analysis of the problem.

The components are categorized under the following functional areas:

- [Admin](#)
- [Master](#)
- [Integration](#)
- [Bill Determinants](#)
- [Data Model](#)
- [Initial Measurement Data](#)
- [Service Order Management](#)
- [VEE](#)
- [Market Settlements Management](#)
- [CX REST API](#)

**Admin**

Component	Description
D2-SubIntAdjustmentVEE	Performs adjustments to consumption; the changes to consumption will be validated against the readings contained prior to and subsequent to the change made.
	This component invokes the D2-SubIntAdjustmentVEE Business Object using the ATD2SubIntAdjustmentVEE Inbound Web Service.
D2-GetSubtractiveInterval	Allows the configuration of subtractive interval data retrieval during usage transaction processing. The rule records service quantities per service point and measuring component - which means that subtractive interval curves for different measuring components.
	This component invokes the D2-GetSubtractiveInterval Business Object using the ATD2GetSubtractiveInterval Inbound Web Service.
D1-MeterReadDownloadActType	Used to create a MeterReadDownloadActType Activity Type.
	This component invokes the D1-MeterReadDownloadActType Business Object using the ATD1MeterReadDownloadActType Inbound Web Service.
D1-PairedEventLastDvcEvtType	Used to create a PairedEventLastDvcEvtType Device Event Type.
	This component invokes the D1-PairedEventLastDvcEvtType Business Object using the ATD1PairedEventLastDvcEvtType Inbound Web Service.
D1-StandardDeviceEventType	Used to create a StandardDeviceEventType Device Event Type.
	This component invokes the D1-StandardDeviceEventType Business Object using the ATD1StandardDeviceEventType Inbound Web Service.
D1-UTCorrectnPrcessrActvtyType	Defines the activity BO to use in the creation of a Usage Transaction Correction Processor. This component also defines the general category of these activities as a Correction Processor.
	The component invokes the D1-UTCorrectnPrcessrActvtyType Business Object using the ATD1UTCorrectnPrcessrActvtyType Inbound Web Service.

Component	Description
D1-RemoteConnectType	Describes configuration parameters required for the Remote Connect command activity, including automated retry and command time-out options. This component allows the definition of a Service Issue Monitor Type resulting in the creation of a Service Issue Monitor of the configured type if a Remote Connect command activity has failed.
	The component invokes the D1-RemoteConnectType Business Object using the ATD1RemoteConnectType Inbound Web Service.
D1-PairedEventFirstDvcEvtType	Describes the Device Event Type - Paired Event (First).
	This component invokes the D1-PairedEventFirstDvcEvtType Business Object using the ATD1PairedEventFirstDvcEvtType Inbound Web Service.
D1-DeviceWithDurationActType	Describes the Device Activity with Duration Type.
	This component invokes the D1-DeviceWithDurationActType Business Object using the ATD1DeviceWithDurationActType Inbound Web Service.
D2-SubMeasurementAggType	Describes the Sub Measurement Aggregator Type.
	This component invokes the D2-SubMeasurementAggType Business Object using the ATD2SubMeasurementAggType Inbound Web Service.
D2-MasterMsrmtAggregatorType	Describes the Master Measurement Aggregator Type.
	This component invokes the D2-MasterMsrmtAggregatorType Business Object using the ATD2MasterMsrmtAggregatorType Inbound Web Service.
D2-ActivityTypeAggDimScanner	Describes the Aggregator Dimension Scanner Activity Type.
	This component invokes the D2-ActivityTypeAggDimScanner Business Object using the ATD2ActivityTypeAggDimScanner Inbound Web Service.
D2-AggregatorType	Used to create an AggregatorType Measuring Component Type.
	This component invokes the D2-AggregatorType Business Object using the ATD2AggregatorType Inbound Web Service.

Component	Description
D1-IntervalChannelTypePhysical	Used to create a IntervalChannelTypePhysical.
D1-MeasurementCycleSchedule	This component invokes the D1-IntervalChannelTypePhysical Business Object using the ATD1IntervalChannelTypePhysical Inbound Web Service.
D1-ReaderRemarkType	Used to create a MeasurementCycleSchedule.
D1-ServiceIssueMonitorType	This component invokes the D1-ReaderRemarkType Business Object using the ATD1ReaderRemarkType Inbound Web Service.
D1-ServiceIssueMonitorType	Used to create a ReaderRemarkType.
D1-ServiceIssueMonitorType	This component invokes the D1-ServiceIssueMonitorType Business Object using the ATD1ServiceIssueMonitorType Inbound Web Service.
D2-MsrmtQuantityAggScannerType	Used to create a ServiceIssueMonitorType.
D2-MsrmtQuantityAggScannerType	This component invokes the D2-MsrmtQuantityAggScannerType Business Object using the ATD2MsrmtQuantityAggScannerType Inbound Web Service.
D2-TOUGroup	Used to create a MsrmtQuantityAggScannerType.
D2-TOUGroup	This component invokes the D2-TOUGroup Business Object using the ATD2TOUGroup Inbound Web Service.
D2-VEERuleHighLowCheck	Used to create a TOUGroup.
D2-VEERuleHighLowCheck	This component invokes the D2-VEERuleHighLowCheck Business Object using the ATD2VEERuleHighLowCheck Inbound Web Service.
D1-HowToCreateMCInformation	Used to create a VEERuleHighLowCheck.
D1-HowToCreateMCInformation	This component invokes the D1-HowToCreateMCInformation Business Object using the ATD1HowToCreateMCInformation Inbound Web Service.

Component	Description
D1-HowToSendActivityResponse	Used to create a HowToSendActivityResponse.
	This component invokes the D1-HowToSendActivityResponse Business Object using the ATD1HowToSendActivityResponse Inbound Web Service.
D1-AvgDailyEstItemConsumption	Used to create a AvgDailyEstItemConsumption.
	This component invokes the D1-AvgDailyEstItemConsumption Business Object using the ATD1AvgDailyEstItemConsumption Inbound Web Service.
D1-VEEEligibilityCriteria	Used to create a VEEEligibilityCriteria.
	This component invokes the D1-VEEEligibilityCriteria Business Object using the ATD1VEEEligibilityCriteria Inbound Web Service.
D2-VerifyUomTouSqIMCEexistForUs	Used to create a VerifyUomTouSqIMCEexistForUs.
	This component invokes the D2-VerifyUomTouSqIMCEexistForUs Business Object using the ATD2VerifyUomTouSqIMCEexistForUs Inbound Web Service.
D1-DeviceEventSeeder	Used to create a DeviceEventSeeder.
	This component invokes the D1-DeviceEventSeeder Business Object using the ATD1DeviceEventSeeder Inbound Web Service.
D1-FieldActivity	Used to create a FieldActivity.
	This component invokes the D1-FieldActivity Business Object using the ATD1FieldActivity Inbound Web Service.
D1-EnableService	Used to create a Enable Service.
	This component invokes the D1-EnableService Business Object using the ATD1EnableService Inbound Web Service.
D1-DisableService	Used to create a DisableService.
	This component invokes the D1- DisableService Business Object using the ATD1 DisableService Inbound Web Service.
D1-BackToBackService	Used to create a BackToBackService.
	This component invokes the D1- BackToBackService Business Object using the ATD1 BackToBackService IWS.

Component	Description
D1-CutServiceForNonPayment	Used to create a CutServiceForNonPayment.
	This component invokes the D1-CutServiceForNonPayment Business Object using the ATD1CutServiceForNonPayment.
D1-ReconnectForPayment	Used to create a ReconnectForPayment.
	This component invokes the D1-ReconnectForPayment Business Object using the ATD1ReconnectForPayment IWS.
D1-ReaderRemark	Used to create a ReaderRemark.
	This component invokes the D1-ReaderRemark Business Object using the ATD1ReaderRemark Inbound Web Service.
D1-TimeZoneTranslationLookup	Used to create a TimeZoneTranslationLookup.
	This component invokes the D1-ATD1TimeZoneTranslationLookup Business Object using the ATD1ReaderRemark Inbound Web Service.
D2-UsageCalculationGroupLookup	Used to create a UsageCalculationGroupLookup.
	This component invokes the D2-UsageCalculationGroupLookup Business Object using the ATD2UsageCalculationGroupLookup Inbound Web Service.
D2-MDMMasterConfig	Used to perform actions such as ADD, READ, UPDATE, and DELETE a MDMMasterConfig.
	This component invokes the D2-MDMMasterConfig Business Object using the ATD2MDMMasterConfig Inbound Web Service.
D2-MDMMasterConfig	Used to perform actions such as ADD, READ, UPDATE, and DELETE a MDMMasterConfig.
	This component invokes the D2-MDMMasterConfig Business Object using the ATD2MDMMasterConfig Inbound Web Service.
D2-MtrCommTrckngAggregatorType	Used to perform actions such as ADD, READ, UPDATE, and DELETE a MtrCommTrckngAggregatorType.
	This component invokes the D2-MtrCommTrckngAggregatorType Business Object using the ATD2MtrCommTrckngAggregatorType Inbound Web Service.

Component	Description
D1-EstimationSuppressionType	Used to perform actions such as ADD, READ, UPDATE, and DELETE a EstimationSuppressionType.
D2-InactiveMeasurementCheck	This component invokes the D1-EstimationSuppressionType Business Object using the ATD1EstimationSuppressionType Inbound Web Service.
D2-InactiveMeasurementCheck	Used to perform actions such as ADD, READ, UPDATE, and DELETE a InactiveMeasurementCheck VEE Rule.
D1-ChannelStatisticsType	This component invokes the D1-InactiveMeasurementCheck Business Object using the ATD2InactiveMeasurementCheck Inbound Web Service.
D1-ChannelStatisticsType	Used to perform actions such as ADD, READ, UPDATE, and DELETE a ChannelStatisticsType.
D1-ChannelStatistics	This component invokes the D1-ChannelStatisticsType Business Object using the ATD1ChannelStatisticsType Inbound Web Service.
D1-ChannelStatistics	Used to perform actions such as ADD, READ, UPDATE, and DELETE a ChannelStatistics.
D1-ChannelStatistics	This component invokes the D1-ChannelStatistics Business Object using the ATD1ChannelStatistics Inbound Web Service.
D2-ItemAggregatorPostalSvcType	Used to perform actions such as ADD, READ, UPDATE, and DELETE a ItemAggregatorPostalSvcType.
D2-ItemAggregatorPostalSvcType	This component invokes the D1-ItemAggregatorPostalSvcType bo using the ATD1ItemAggregatorPostalSvcType Inbound Service.
D1-ActivityStatsAggregator	Used to perform actions such as ADD, READ, UPDATE, and DELETE a ActivityStatsAggregator.
D1-ActivityStatsAggregator	This component invokes the D1-ActivityStatsAggregatorBusiness Object using the ATD1ActivityStatsAggregator Inbound Service.
D1-StatsAggregator	Used to perform actions such as ADD, READ, UPDATE and DELETE a StatsAggregator.
D1-StatsAggregator	This component invokes the D1-StatsAggregator Business Object using the ATD1StatsAggregators Inbound Web Service.

Component	Description
D1-AggregatorRoot	Used to perform actions such as ADD, READ, UPDATE, and DELETE a AggregatorRoot.
D1-FacilityLite	This component invokes the D1- AggregatorRoot Business Object using the ATD1AggregatorRoot Inbound Web Service.
D1-SpecificationLookup	Used to perform actions such as ADD, READ, UPDATE, and DELETE a FacilityLite.
D1-MeasuringCompTypLite	This component invokes the D1- FacilityLite Business Object using the ATD1FacilityLite Inbound Web Service.
D1-GetDvcFrmIdenTypFlag	Used to perform actions such as ADD, READ, UPDATE, and DELETE a SpecificationLookup.
D1-GetSimdIdFromImd	This component invokes the D1- SpecificationLookup Business Object using the ATD1SpecificationLookup Inbound Web Service.
D1-GetMCFrmDvcExtId	Used to perform actions such as ADD, READ, UPDATE, and DELETE a MeasuringCompTypLite.
D1-GetProductKeyFromSync	This component invokes the D1- MeasuringCompTypLite Business Object using the ATD1MeasuringCompTypLite Inbound Web Service.
D1-GetUsageFromExtID	Used to retrieve Device ID By Identifier and Type Flag using the ATD1 GetDvcFrmIdenTypFlag Inbound Web Service.
D1-GetUSFromExtID	Used to retrieve Simd ID By IMD ID using the ATD1GetSimdIdFromImd Inbound Web Service.
D1-GetDCFrmDvcExtId	Used to retrieve Measuring Component ID from Device External ID using the ATD1GetMCFrmDvcExtId Inbound Web Service.
D1-GetInstEvtFromDvcExId	Used to Get Product Key from Sync Request ID using the ATD1 GetProductKeyFromSync Inbound Web Service.
D1-GetUsageFromExtID	Used to retrieve Usage ID from CCB Usage ID using the ATD1 GetUsageFromExtID Inbound Web Service.
D2-GetUSFromExtID	Used to retrieve US ID from External ID using the ATD1 GetUSFromExtID Inbound Web Service.
D1-GetDCFrmDvcExtId	Used to retrieve DC ID from External ID using the ATD1GetDCFrmDvcExtId Inbound Web Service.
D1-GetInstEvtFromDvcExId	Used to retrieve Install Event ID from Device External ID using ATD1GetInstEvtFromDvcExId Inbound Web Service.

Component	Description
D1-GetInstEvtFrmSPExtId	Used to retrieve Install Event ID from Service Point External ID using the ATD1GetInstEvtFrmSPExtId Inbound Web Service.
D1-GetMCFromExtID	Used to retrieve Measuring Component ID from External ID using the ATD1GetMCFromExtID Inbound Web Service.
D1-GetContactFromExtID	Used to retrieve Contact ID from External ID using the ATD1GetContactFromExtID Inbound Web Service.
D1-GetSpFromExtID	Used to retrieve Service Point ID from External ID using the ATD1GetSpFromExtID Inbound Web Service.
D1-GetSyncReqIdFrmExtId	Used to retrieve Sync Request ID from External ID using the ATD1GetSyncReqIdFrmExtId Inbound Web Service.

## Master

Component	Description
D2- MtrCommTrckgDimScanner	Used to perform actions such as ADD, READ, UPDATE, and DELETE a MtrCommTrckgDimScanner.  This component invokes the D2-MtrCommTrckgDimScanner Business Object using the ATD2MtrCommTrckgDimScanner Inbound Web Service.
D2- MtrCommTrckgDimScanner	Used to perform actions such as ADD, READ, UPDATE, and DELETE a MtrCommTrckgDimScanner.  This component invokes the D2-MtrCommTrckgDimScanner Business Object using the ATD2MtrCommTrckgDimScanner Inbound Web Service.
D1-EstimationSuppression	Used to perform actions such as ADD, READ, UPDATE, and DELETE a EstimationSuppression.  This component invokes the D2-EstimationSuppression Business Object using the ATD2EstimationSuppression Inbound Web Service.

Component	Description
D1-InitialLoadIMDSubrInterval	Used to perform actions such as ADD, READ, UPDATE, and DELETE a InitialLoadIMDSubrInterval.
D1-EstimationIMDSubrInterval	This component invokes the D1-InitialLoadIMDSubrInterval Business Object using the ATD1InitialLoadIMDSubrInterval Inbound Web Service.
D1-ManualIMDSubrInterval	Used to perform actions such as ADD, READ, UPDATE, and DELETE a ManualIMDSubrInterval.
D1-SystemIMDSubrInterval	This component invokes the D1-ManualIMDSubrInterval Business Object using the ATD1ManualIMDSubrInterval Inbound Web Service.
D1-SubtractveIntvalMeasurement	Used to perform actions such as ADD, READ, UPDATE, and DELETE a SystemIMDSubrInterval.
D1-IntrvlChanTypPhysSubtractiv	This component invokes the D1-SubtractveIntvalMeasurement Business Object using the ATD1SystemIMDSubrInterval Inbound Web Service.
D1-IntrvlChanTypPhysSubtractiv	Used to perform actions such as ADD, READ, UPDATE, and DELETE a IntrvlChanTypPhysSubtractiv.
	This component invokes the D1-IntrvlChanTypPhysSubtractiv Business Object using the ATD1IntrvlChanTypPhysSubtractiv Inbound Web Service.

Component	Description
D1-IntervalChannelSubtractive	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a IntervalChannelSubtractive.</p> <p>This component invokes the D1-IntervalChannelSubtractive Business Object using the ATD1IntervalChannelSubtractive Inbound Web Service.</p>

## Integration

Component	Description
D1-OngoingSyncRequestContact	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a OngoingSyncRequestContact.</p> <p>This component invokes the D1-OngoingSyncRequestContact Business Object using the ATD1OngoingSyncRequestContact Inbound Web Service.</p>
D1-OngoingSyncRequestSP	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a OngoingSyncRequestSP.</p> <p>This component invokes the D1-OngoingSyncRequestSP Business Object using the ATD1OngoingSyncRequestSP Inbound Web Service.</p>
D1-OngoingSyncRequestDevice	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a OngoingSyncRequestDevice.</p> <p>This component invokes the D1-OngoingSyncRequestDevice Business Object using the ATD1OngoingSyncRequestDevice Inbound Web Service.</p>
D2-OngoingSyncRequestUS	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a OngoingSyncRequestUS.</p> <p>This component invokes the D2-OngoingSyncRequestUS Business Object using the ATD2OngoingSyncRequestUS Inbound Web Service.</p>

Component	Description
D1-OngoingSyncRequestDC	Used to perform actions such as ADD, READ, UPDATE, and DELETE a OngoingSyncRequestDC.
	This component invokes the D2-OngoingSyncRequestDC Business Object using the ATD1OngoingSyncRequestDC Inbound Web Service.
D1-CompositeSyncRequestDC	Used to perform actions such as ADD, READ, UPDATE, and DELETE a CompositeSyncRequestDC.
	This component invokes the D1-CompositeSyncRequestDC Business Object using the ATD1CompositeSyncRequestDC Inbound Web Service.
D1-OngoingSyncRequestMC	Used to perform actions such as ADD, READ, UPDATE, and DELETE a OngoingSyncRequestMC.
	This component invokes the D1-OngoingSyncRequestMC Business Object using the ATD1OngoingSyncRequestMC Inbound Web Service.
D1-OngoingSyncReqScalarMtrRead	Used to perform actions such as ADD, READ, UPDATE, and DELETE a OngoingSyncReqScalarMtrRead.
	This component invokes the D1-OngoingSyncReqScalarMtrRead Business Object using the ATD1OngoingSyncReqScalarMtrRead Inbound Web Service.
D1-OngoingSyncRequestIE	Used to perform actions such as ADD, READ, UPDATE, and DELETE a OngoingSyncRequestIE.
	This component invokes the D1-OngoingSyncRequestIE Business Object using the ATD1OngoingSyncRequestIE Inbound Web Service.
D2-UsageTran_ValSQHighList	Used to perform actions such as READ on D2-UsageTransaction
	This component invokes the D2-UsageTransaction Business Object using the ATD2UsageTransaction Inbound Web Service.

Component	Description
D2-UsageTran_ValUsgPeriod	Used to perform actions such as READ on D2-UsageTransaction
D2-InitialSyncRequestDynOpt	This component invokes the D2-UsageTransaction Business Object using the ATD2UsageTransactiuon Inbound Web Service.
D2-InitialSyncRequestDynOpt	Used to perform actions such as ADD, READ, UPDATE, and DELETE a InitialSyncRequestDynOpt.
D2-InitialSyncRequestDynOpt	This component invokes the D2-InitialSyncRequestDynOpt Business Object using the ATD2InitialSyncRequestDynOpt Inbound Web Service.
D2-OngoingSyncRequestDynOpt	Used to perform actions such as ADD, READ, UPDATE, and DELETE a OngoingSyncRequestDynOpt.
D2-OngoingSyncRequestDynOpt	This component invokes the D2-OngoingSyncRequestDynOpt Business Object using the ATD2OngoingSyncRequestDynOpt Inbound Web Service.
D2-InitialSyncRequestDynOptEvt	Used to perform actions such as ADD, READ, UPDATE, and DELETE a InitialSyncRequestDynOptEvt.
D2-InitialSyncRequestDynOptEvt	This component invokes the D2-InitialSyncRequestDynOptEvt Business Object using the ATD2InitialSyncRequestDynOptEvt Inbound Web Service.
D2-OngoingSyncRequestDynOptEvt	Used to perform actions such as ADD, READ, UPDATE, and DELETE a OngoingSyncRequestDynOptEvt.
D2-OngoingSyncRequestDynOptEvt	This component invokes the D2-OngoingSyncRequestDynOptEvt Business Object using the ATD2OngoingSyncRequestDynOptEvt Inbound Web Service.
D2-CCBContractOptionTypeLookup	Used to perform actions such as ADD, READ, UPDATE, and DELETE a CCBContractOptionTypeLookup.
D2-CCBContractOptionTypeLookup	This component invokes the D2-CCBContractOptionTypeLookup Business Object using the ATD2CCBContractOptionTypeLookup Inbound Web Service.

Component	Description
D1-HowToTranslateExternalValue	Used to perform actions such as ADD, READ, UPDATE, and DELETE a HowToTranslateExternalValue.
D1-CCBContactTypeLookup	This component invokes the D1-HowToTranslateExternalValue Business Object using the ATD1HowToTranslateExternalValue Inbound Web Service.
D1-CCBLifeSupSensitiveLdLookup	Used to perform actions such as ADD, READ, UPDATE, and DELETE a CCBContactTypeLookup.
D1-CCBLifeSupSensitiveLdLookup	This component invokes the D1-CCBLifeSupSensitiveLdLookup Business Object using the ATD1CCBLifeSupSensitiveLdLookup Inbound Web Service.
D2-CCBSATypeLookup	Used to perform actions such as ADD, READ, UPDATE, and DELETE a CCBSATypeLookup.
D2-CCBSATypeLookup	This component invokes the D2-CCBSATypeLookup Business Object using the ATD2CCBSATypeLookup Inbound Web Service.
D2-CCBSAStatusLookup	Used to perform actions such as ADD, READ, UPDATE, and DELETE a CCBSAStatusLookup.
D2-CCBSAStatusLookup	This component invokes the D2-CCBSAStatusLookup Business Object using the ATD2CCBSAStatusLookup Inbound Web Service.
D1-InitialSyncRequestDevice	Used to perform actions such as ADD, READ, UPDATE, and DELETE a InitialSyncRequestDevice.
D1-InitialSyncRequestDevice	This component invokes the D2-InitialSyncRequestDevice Business Object using the ATD1InitialSyncRequestDevice Inbound Web Service.

## Bill Determinants

Component	Description
D2-UsgTranSeeder	Used to perform actions such as ADD, READ, UPDATE, and DELETE a Usage Transaction Seeder.  This component invokes the D2-UsgTranSeeder Business Object using the ATD2UsgTranSeeder Inbound Web Service.
D2-UsageTransaction	Used to perform actions such as ADD, READ, UPDATE, and DELETE a Usage Transaction.  This component invokes the D2-UsageTransaction Business Object using the ATD2UsageTransaction Inbound Web Service.
D2-UsageSubscription	Used to create a Usage Subscription.  This component invokes the D2-UsageSubscription Business Object using the ATD2UsageSubscription Inbound Web Service.
D2-TOUMap	Used to create a TOU Map.  This component invokes the D2-TOUMap Business Object using the ATD2TOUMap Inbound Web Service.
D2-DynamicOption	Used to create a Dynamic Option.  This component invokes the D2-DynamicOption Business Object using the ATD2DynamicOption Inbound Web Service.
D2-DynamicOptionEvent	Used to create a Dynamic Option Event.  This component invokes the D2-DynamicOptionEvent Business Object using the ATD2DynamicOptionEvent Inbound Web Service.
D1-UsageGroup	Used to create a Usage Group  This component invokes the D1-UsageGroup Business Object using the ATD1UsageGroup Inbound Web Service.
D2-GetScalar	Used to create a GetScalar Usage Rule.  This component invokes the D2-GetScalar Business Object using the ATD2GetScalar Inbound Web Service.

Component	Description
D2-GetTOUUsage	Used to create a GetTOUUsage Usage Rule.
	This component invokes the D2-GetTOUUsage Business Object using the ATD2GetTOUUsage Inbound Web Service.
D2-DynamicOptionType	Describes the creation of Dynamic Option Type.
	This component invokes the D2-DynamicOptionType Business Object using the ATD2DynamicOptionType Inbound Web Service.
D2-GetIntervalData	Allows the configuration of interval data retrieval during usage transaction processing. The rule records service quantities per service point and measuring component - which means that interval curves for different measuring components.
	This component invokes the D2-GetIntervalData Business Object using the ATD2GetIntervalData Inbound Web Service.
D2-Math	Allows the configuration of interval data retrieval during usage transaction processing. The rule records service quantities per service point and measuring component - which means that interval curves for different measuring components.
	This component invokes the D2-Math Business Object using the ATD2Math Inbound Web Service.
D2-UsageSubscriptionType	Allows to create a usage subscription type for creating a usage subscription.
	This component invokes the D2-UsageSubscriptionType Business Object using the ATD2UsageSubscriptionType Inbound Web Service.
D2-TOUMapType	Describes Time Of Use Map Type.
	This component invokes the D2-TOUMapType Business Object using the ATD2TOUMapType Inbound Web Service.
D2-HowToCreateUSInformation	Describes how to create the Usage Subscription related information.
	This component invokes the D2-HowToCreateUSInformation Business Object using the ATD2HowToCreateUSInformation Inbound Web Service.

Component	Description
D2-ApplyMathInt	Describes the structure and rules applicable to Apply Math (Interval Data) usage rule.
	This component invokes the D2-ApplyMathInt Business Object using the ATD2ApplyMathInt Inbound Web Service.
D1-FactorNumber	Describes the Factor Number.
	This component invokes the D1-FactorNumber Business Object using the ATD1FactorNumber Inbound Web Service.
D1-FactorProfile	Used to create a FactorProfile Factor Value.
	This component invokes the D1-FactorProfile Business Object using the ATD1FactorProfile Inbound Web Service.
D1-FactorVEEGroup	Used to create a FactorVEEGroup Factor.
	This component invokes the D1- FactorVEEGroup Business Object using the ATD1FactorVEEGroup Inbound Web Service.
D2-GetItemCountsConsumption	Used to create a GetItemCountsConsumption Usage Rule.
	This component invokes the D2- GetItemCountsConsumption Business Object using the ATD2GetItemCountsConsumption Inbound Web Service.
D2-TOUMapTemplate	Used to create a TOU Map Template.
	This component invokes the D2-TOUMapTemplate Business Object using the ATD2TOUMapTemplate Inbound Web Service.
D2-ValAgainstTol	Used to create a Validate Against Tolerance usage rule.
	This component invokes the D2-ValAgainstTol Business Object using the ATD2ValAgainstTol Inbound Web Service.
D1-FactorValueNumber	Used to create a Factor Value Number.
	This component invokes the D1- FactorValueNumber Business Object using the ATD1FactorValueNumber Inbound Web Service.

Component	Description
D1-FactorValueVEEGroup	<p>Describes the Factor Value VEE Group.</p> <p>This component invokes the D1-FactorValueVEEGroup Business Object using the ATD1FactorValueVEEGroup Inbound Web Service.</p>
D1-FactorValueProfile	<p>Used to create a FactorValueProfile Factor.</p> <p>This component invokes the D1-FactorValueProfile Business Object using the ATD1FactorValueProfile Inbound Web Service.</p>

## Data Model

Component	Description
D1-SmartMeter	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Smart Meter.</p> <p>This component invokes the D1-SmartMeter Business Object using the ATD1SmartMeter Inbound Web Service.</p>
D1-ManualMeter	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Manual Meter.</p> <p>This component invokes the D1-ManualMeter Business Object using the ATD1ManualMeter Inbound Web Service.</p>
D1-DvcCommEquipment	<p>Used to create a Device Communication Equipment.</p> <p>This component invokes the D1-DvcCommEquipment using the ATD1DvcCommEquipment Inbound Web Service.</p>
D1-DeviceConfiguration	<p>Used to add Device Configuration to a device.</p> <p>This component invokes the D1-DeviceConfiguration Business Object using the ATD1DeviceConfiguration Inbound Web Service.</p>
D1-MeterInsightInvestigation	<p>Used to access Meter Insight Investigation service task.</p> <p>This component invokes the D1-MeterInsightInvestigation Business Object using the ATD1MeterInsightInvestigation Inbound Web Service.</p>

Component	Description
D1- MtrInsightInvestigationType	Used to access Meter Insight Investigation Type service task.
D1- AttachmentCreation	This component invokes the D1-IntervalChannel MtrInsightInvestigationType Business Object using ATD1MtrInsightInvestigationType Inbound Web Service.
D1- AttachmentCreation	Used to create attachments.
D1- RevenueProtectionInsight	This component invokes the D1-AttachmentCreation Business Object using ATD1AttachmentCreation Inbound Web Service.
D1- RevenueProtectionInsight	Used to create RevenueProtectionInsight.  This component invokes the D1-RevenueProtectionInsight Business Object using ATD1RevenueProtectionInsight Inbound Web Service.
D1- SPMonitorBusinessFlagType	Used to create SPMonitorBusinessFlagType.  This component invokes the D1-SPMonitorBusinessFlagType Business Object using ATD1SPMonitorBusinessFlagType Inbound Web Service.
D1-ServicePoint	Used to create a Service Point.  This component invokes the D1- ServicePoint Business Object using the ATD1ServicePoint Inbound Web Service.
D1-SmartMeterInstallEvent	Used to create an installation event for a Smart Meter.  This component invokes the D1-SmartMeterInstallEvent Business Object using the ATD1SmartMeterInstallEvent Inbound Web Service.
D1-ManualMeterInstallEvent	Used to create an installation event for a Manual Meter.  This component invokes the D1-ManualMeterInstallEvent Business Object using the ATD1ManualMeterInstallEvent Inbound Web Service.
D1-Transformer	Used to create a Facility (Transformer) for a service type.  This component invokes the D1-Transformer Business Object using the ATD1Transformer Inbound Web Service.

Component	Description
D1-ElectricityNetworkLocation	Used to create an Electricity Network Location.
	This component invokes the D1-ElectricityNetworkLocation Business Object using the ATD1ElectricityNetworkLocation Inbound Web Service.
D1-IntervalScratchpad	Used to create Interval Scratchpad MC.
	This component invokes the D1-IntervalScratchpad Business Object using the ATD1IntervalScratchpad Inbound Web Service.
D1-Person	Used to create a Person.
	This component invokes the D1-Person Business Object using the ATD1Person Inbound Web Service.
D1-Business	Used to create a Business.
	This component invokes the D1-Business Business Object using the ATD1Business Inbound Web Service.
DM_ElectricServicePoint	Used to create a CM Service Point (demo data).
	This component invokes the DM_ElectricServicePoint Business Object using the ATDMElectricServicePoint Inbound Web Service.
D1-RegisterAutoRead	Used to add register auto read measuring components to a device configuration.
	This component invokes the D1-RegisterAutoRead Business Object using the ATD1RegisterAutoRead Inbound Web Service.
D1-Item	Used to perform actions such as ADD, READ, UPDATE and DELETE an Item.
	This component invokes the D1-Item Business Object using the ATD1Item Inbound Web Service.
D1-ItemInstallEvent	Used to create an installation event for a Smart Meter.
	This component invokes the D1-ItemInstallEvent Business Object using the ATD1ItemInstallEvent Inbound Web Service.

Component	Description
D1-AutoReadRegisterType	Used to define the properties of measuring components automatically read on a regular basis, but for which only one measurement is received at a time, meaning one measurement per Initial Measurement.
	This component invokes the D1-AutoReadRegisterType Business Object using the ATD1AutoReadRegisterType Inbound Web Service.
D1-DeviceConfigurationType	Used to create a device configuration type used to create device configuration for a device.
	This component invokes the D1-DeviceConfigurationType Business Object using the ATD1DeviceConfigurationType Inbound Web Service.
D1-ExceptionType	Used to set up VEE Exception Types.
	This component invokes the D1-ExceptionType Business Object using the ATD1ExceptionType Inbound Web Service.
D1-ExternalApplication	Used to create a Service Provider.
	This component invokes the D1-ExternalApplication Business Object using the ATD1ExternalApplication Inbound Web Service.
D1-HeadEndSystem	Used to create a Head End system service provider.
	This component invokes the D1-HeadEndSystem Business Object using the ATD1HeadEndSystem Inbound Web Service.
D1-ItemConfigurationType	Creates a configuration types for Item Types that can represent badged items.
	This component invokes the D1-ItemConfigurationType Business Object using the ATD1ItemConfigurationType Inbound Web Service.
D1-ItemType	Creates an item type applicable to badged and unbadged non-meter devices.
	This component invokes the D1-ItemType Business Object using the ATD1ItemType Inbound Web Service.

Component	Description
D1-ManualMeterType	Creates an item type applicable to badged and unbadged non-meter devices.
D1-DvcCommEquipmentType	This component invokes the D1-ManualMeterType Business Object using the ATD1ManualMeterType Inbound Web Service.
D1-ServiceType	Used to create a Service Type.
D1-SmartMeterType	This component invokes the D1-ServiceType Business Object using the ATD1ServiceType Inbound Web Service.
D1-TimeOfUse	Used to create a Device of Smart Meter Type.
D1-UnitOfMeasure	This component invokes the D1-SmartMeterType Business Object using the ATD1SmartMeterType Inbound Web Service.
D1-Manufacturer	Used to create a TOU.
D1-UnitOfMeasure	This component invokes the D1-TimeOfUse Business Object using the ATD1TimeOfUse Inbound Web Service.
D1-MeasurementCycle	Used to create a Unit of Measure.
D1-RegisterTypePhysical	This component invokes the D1-UnitOfMeasure Business Object using the ATD1 UnitOfMeasure Inbound Web Service.
D1-Manufacturer	Describes the structure and business rules applicable to manufacturers.
D1-MeasurementCycle	This component invokes the D1-Manufacturer Business Object using the ATD1 Manufacturer Inbound Web Service.
D1-RegisterTypePhysical	Describes the Measurement Cycle creation.
D1-RegisterTypePhysical	This component invokes the D1-MeasurementCycle Business Object using the ATD1MeasurementCycle Inbound Web Service.

Component	Description
D1-ServicePointType	A generic component used to create Service point type.
D1-MeasurementCycleRoute	This component invokes the D1- ServicePointType Business Object using the ATD1ServicePointType Inbound Web Service.
D1-HowToProcessDeviceInfo	Used to create Measurement Cycle Route.
D1-HeadendSQILookup	This component invokes the D1- MeasurementCycleRoute Business Object using the ATD1MeasurementCycleRoute Inbound Web Service.
D1-HowToProcessDeviceInfo	Describes how to process the Device Related Information.
D1-HeadendSQILookup	This component invokes the D1- HowToProcessDeviceInfo Business Object using the ATD1HowToProcessDeviceInfo Inbound Web Service.
D1-HeadendSQILookup	A non-instantiable Extendable Lookup BO that provides translation between an external SQI sent in via a meter data source/provider, such as a head-end system and SQIs that have been configured within the application. SGG adapter products will deliver instantiable child BOs of this BO if SQI translation is needed.
D1-ServiceQuantityIdentifier	This component invokes the D1- HeadendSQILookup Business Object using the ATD1HeadendSQILookup Inbound Web Service.
D1-ServiceQuantityIdentifier	Describes the structure and business rules applicable to Service Quantity Identifier definitions.
D1-ServiceQuantityIdentifier	This component invokes the D1- ServiceQuantityIdentifier Business Object using the ATD1ServiceQuantityIdentifier Inbound Web Service.
D1-Market2	Valid Service Providers are Market Participants.
D1-Market2	This component invokes the D1-Market2 Business Object using the ATD1Market2 Inbound Web Service.
D1-ContactType	Describes Contact Type.
D1-ContactType	This component invokes the D1-ContactType Business Object using the ATD1ContactType Inbound Web Service.

Component	Description
D2-DynCompValidation	Used to perform actions such as ADD, READ, UPDATE, and DELETE a DynCompValidation.  This component invokes the D2-DynCompValidation Business Object using the ATD2DynCompValidation Inbound Web Service.

## Initial Measurement Data

Component	Description
D1-IMDSeeder	Used to perform actions such as ADD, READ, UPDATE, and DELETE of an IMD Seeder.  This component invokes the D1-IMDSeeder Business Object using the ATD1IMDSeeder Inbound Web Service.
D1-ManualIMDInterval	Used to perform actions such as ADD, READ, UPDATE, and DELETE of Manual IMD Interval records.  This component invokes the D1-ManualIMDInterval Business Object using the ATD1ManualIMDInterval Inbound Web Service.
D1-ManualIMDScalar	Used to perform actions such as ADD, READ, UPDATE, and DELETE of Manual IMD Scalar records.  This component invokes the D1-ManualIMDScalar Business Object using the ATD1ManualIMDScalar Inbound Web Service.
D1-InitialLoadIMDInterval	Used to perform actions such as ADD, READ, UPDATE, and DELETE of Initial Load IMD Interval records.  This component invokes the D1-InitialLoadIMDInterval Business Object using the ATD1InitialLoadIMDInterval Inbound Web Service.
D1-InitialLoadIMDScalar	Used to perform actions such as ADD, READ, UPDATE, and DELETE of Initial Load IMD Scalar records.  This component invokes the D1-InitialLoadIMDScalar Business Object using the ATD1InitialLoadIMDScalar Inbound Web Service.

<b>Component</b>	<b>Description</b>
D1-EstimationIMDInterval	Used to perform actions such as ADD, READ, UPDATE, and DELETE of Estimation IMD Interval records.
D1-EstimationIMDScalar	This component invokes the D1-EstimationIMDInterval Business Object using the ATD1EstimationIMDInterval Inbound Web Service.
D1-EstimationIMDScalar	Used to perform actions such as ADD, READ, UPDATE, and DELETE of Estimation IMD Scalar records.
D1-EstimationIMDScalar	This component invokes the D1-EstimationIMDScalar Business Object using the ATD1EstimationIMDScalar Inbound Web Service.

## Service Order Management

Component	Description
D1-CancelOrchestration	Used to perform actions such as ADD, READ, UPDATE and DELETE a Smart Meter.  This component invokes the D1-CancelOrchestration Business Object using the ATD1CancelOrchestration Inbound Web Service.
D1-UpdateOrchestration	Used to perform actions such as ADD, READ, UPDATE and DELETE a Smart Meter.  This component invokes the D1-UpdateOrchestration Business Object using the ATD1UpdateOrchestration Inbound Web Service.

## VEE

Component	Description
D1-VEEGroup	Used to create a VEE Group.  This component invokes the D1-VEEGroup Business Object using the ATD1VEEGroup Inbound Web Service.
D2-NegativeConsumptionCheck	Used to create a Negative-Consumption Check VEE Rule.  This component invokes the D2-NegativeConsumptionCheck Business Object using the ATD2NegativeConsumptionCheck Inbound Web Service.
D2-RegisterMultiplierCheck	Used to create a Multiplier Check VEE Rule.  This component invokes the D2-RegisterMultiplierCheck Business Object using the ATD2RegisterMultiplierCheck Inbound Web Service.
D2-ScalarProfileEstimation	Used to create a ScalarProfileEstimation VEE Rule.  This component invokes the D2-ScalarProfileEstimation Business Object using the ATD2ScalarProfileEstimation Inbound Web Service.
D2-SumCheck	Used to create a SumCheck VEE Rule.  This component invokes the D2-SumCheck Business Object using the ATD2SumCheck Inbound Web Service.

Component	Description
D2-ScalarCalcFromInterval	Describes Scalar Calculation from Interval.
D2-ScalarEstimation	This component invokes the D2-ScalarCalcFromInterval Business Object using the ATD2ScalarCalcFromInterval Inbound Web Service.
D2-ScalarEstimation	Describes the Describes Scalar Estimation VEE Rule.
D2-UOMCheck	This component invokes the D2-ScalarEstimation Business Object using the ATD2ScalarEstimation Inbound Web Service.
D2-UOMCheck	Used to create UOM Check VEE rule.
D2-ZeroConsumptionCheck	This component invokes the D2-UOMCheck Business Object using the ATD2UOMCheck Inbound Web Service.
D2-ZeroConsumptionCheck	Used to create Zero Consumption Check VEE rule.
D2-ZeroConsumptionCheck	This component invokes the D2-ZeroConsumptionCheck Business Object using the ATD2ZeroConsumptionCheck Inbound Web Service.
D1-VEERuleExceptionHandler	Used to create a VEERuleExceptionHandler VEE Rule.
D1-VEERuleExceptionHandler	This component invokes the D1-VEERuleExceptionHandler Business Object using the ATD1VEERuleExceptionHandler Inbound Web Service.
D2-EnsureIMDExistsForSibling	Used to create a EnsureIMDExistsForSibling VEE rule.
D2-EnsureIMDExistsForSibling	This component invokes the D2-EnsureIMDExistsForSibling Business Object using the ATD2EnsureIMDExistsForSibling Inbound Web Service.
D2-IntervalAdjustmentFrmScalar	Used to create a IntervalAdjustmentFrmScalar VEE rule.
D2-IntervalAdjustmentFrmScalar	This component invokes the D2-IntervalAdjustmentFrmScalar Business Object using the ATD2IntervalAdjustmentFrmScalar Inbound Web Service.

Component	Description
D2-IntervalInterpolationEst	<p>Used to create an IntervalInterpolationEst VEE rule.</p> <p>This component invokes the D2-IntervalInterpolationEst Business Object using the ATD2IntervalInterpolationEst Inbound Web Service.</p>
D2-IntervalReplacementRule	<p>Used to create an IntervalReplacementRule VEE rule.</p> <p>This component invokes the D2-IntervalReplacementRule Business Object using the ATD2IntervalReplacementRule Inbound Web Service.</p>
D2-IntervalSpikeCheck	<p>Used to create an IntervalSpikeCheck VEE rule.</p> <p>This component invokes the D2-IntervalSpikeCheck Business Object using the ATD2IntervalSpikeCheck Inbound Web Service.</p>
D2-ScalarReplacementRule	<p>Used to create a ScalarReplacementRule VEE rule.</p> <p>This component invokes the D2-ScalarReplacementRule Business Object using the ATD2ScalarReplacementRule Inbound Web Service.</p>
D1-VEERuleSuccessTermination	<p>Used to create a VEERuleSuccessTermination VEE rule.</p> <p>This component invokes the D1-VEERuleSuccessTermination Business Object using the ATD1VEERuleSuccessTermination Inbound Web Service.</p>
D1-DuplicateIMDCheck	<p>Checks whether the current IMD is a duplicate of one already received for the same measuring component.</p> <p>This component produces a VEE exception of the type and severity defined on the rule when it is configured.</p>
D1-VEERuleGroupFactor	<p>It invokes the D1-DuplicateIMDCheck Business Object using the ATD1DuplicateIMDCheck Inbound Web Service.</p> <p>Describes the VEE Rule group factor.</p>
	<p>This component invokes the D1-VEERuleGroupFactor Business Object using the ATD1VEERuleGroupFactor Inbound Web Service.</p>

Component	Description
D2-FinalMeasurementValidation	Describes the Final Measurement Validation.
	This component invokes the D2-FinalMeasurementValidation Business Object using the ATD2FinalMeasurementValidation Inbound Web Service.
D2-IntervalAveragingEstimation	Describes Interval Averaging Estimation.
	This component invokes the D2-IntervalAveragingEstimation Business Object using the ATD2IntervalAveragingEstimation Inbound Web Service.
D2-IntervalProfileEstimation	Describes Interval Profile Estimation.
	This component invokes the D2-IntervalProfileEstimation Business Object using the ATD2IntervalProfileEstimation Inbound Web Service.
D2-IntervalSizeValidation	Describes Interval Size Validation.
	This component invokes the D2-IntervalSizeValidation Business Object using the ATD2IntervalSizeValidation Inbound Web Service.
D2-RaiseMissingQuantityExcp	Describes Raise Missing Quantity Exception.
	This component invokes the D2-RaiseMissingQuantityExcp Business Object using the ATD2RaiseMissingQuantityExcp Inbound Web Service.
D1-VEERuleReferredVEEGroup	Calls the VEE processor to execute the rules for the VEE group configured on the rule.
	This component invokes the D1-VEERuleReferredVEEGroup Business Object using the ATD1VEERuleReferredVEEGroup Inbound Web Service.
D2-SSMeterReadTaskType	Holds the default values such as measurement condition, service provider, and data source used in self-service meter read creation. To Do type and role, if specified will be used when reporting errors that occur during IMD creation.
	This component invokes the D2-SSMeterReadTaskType Business Object using the ATD2SSMeterReadTaskType Inbound Web Service.

Component	Description
D2-ProlongedEstimationCheck	<p>Describes ProlongedEstimationCheck.</p> <p>This component invokes the D2-ProlongedEstimationCheck Business Object using the ATD2 ProlongedEstimationCheck Inbound Web Service.</p>

## Market Settlements Management

### Dynamic Aggregation

Component	Description
D1-AggrBilledServiceQuantities	<p>Used to create a Aggregation Billed Service Quantities.</p> <p>This component invokes the D1-AggrBilledServiceQuantities Business Object using the ATD1 AggrBilledServiceQuantities Inbound Web Service.</p>
D1-AggregationCompositeSet	<p>Used to create a Aggregation Composite Set.</p> <p>This component invokes the D1-AggregationCompositeSet Business Object using the ATD1 AggregationCompositeSet Inbound Web Service.</p>
D1-AggregationConfig	<p>Used to create a Aggregation Config.</p> <p>This component invokes the D1-AggregationConfig Business Object using the ATD1AggregationConfig Inbound Web Service.</p>
D1-AggregationFoundationSet	<p>Used to create a Aggregation Foundation Set.</p> <p>This component invokes the D1-AggregationFoundationSet Business Object using the ATD1AggregationFoundationSet Inbound Web Service.</p>
D1-AggregationGroup	<p>Used to create a Aggregation Group.</p> <p>This component invokes the D1-AggregationGroup Business Object using the ATD1AggregationGroup Inbound Web Service.</p>
D1-AggregationGroupRun	<p>Used to create a Aggregation Group Run.</p> <p>This component invokes the D1-AggregationGroupRun Business Object using the ATD1AggregationGroupRun Inbound Web Service.</p>

Component	Description
D1-AggregationIntervalType	Used to create a Aggregation Interval Type.
	This component invokes the D1-AggregationIntervalType Business Object using the ATD1AggregationIntervalType Inbound Web Service.
D1-AggregationMasterConfig	Used to create a Aggregation Master Config.
	This component invokes the D1-Aggregation Master Config Business Object using the ATD1AggregationMasterConfig Inbound Web Service.
D1-AggregatorComposite	Used to create a Aggregator Composite.
	This component invokes the D1-AggregatorComposite Business Object using the ATD1 AggregatorComposite Inbound Web Service.
D1-AggregatorCustomerQuantity	Used to create a Aggregator Customer Quantity.
	This component invokes the D1-AggregatorCustomerQuantity Business Object using the ATD1 AggregatorCustomerQuantity Inbound Web Service.
D1-AggregatorInterval	Used to create a AggregatorInterval.
	This component invokes the D1-AggregatorInterval Business Object using the ATD1AggregatorInterval Inbound Web Service.
D1-AggregatorItems	Used to create a AggregatorItems.
	This component invokes the D1-AggregatorItems Business Object using the ATD1AggregatorItems Inbound Web Service.
D1-AggregatorScalar	Used to create a Aggregator Scalar.
	This component invokes the D1-AggregatorScalar Business Object using the ATD1AggregatorScalar Inbound Web Service.
D1-BadgedItemsDataSource	Used to create a Badged Items Data Source.
	This component invokes the D1-BadgedItemsDataSource Business Object using the ATD1BadgedItemsDataSource Inbound Web Service.

Component	Description
D1-CriteriaSourceTypeLookup	<p>Used to create a CriteriaSourceTypeLookup.</p> <p>This component invokes the D1-CriteriaSourceTypeLookup Business Object using the ATD1CriteriaSourceTypeLookup Inbound Web Service.</p>
D1-DataSourceBilledSerQuantity	<p>Used to create a DataSourceBilledSerQuantity.</p> <p>This component invokes the D1-DataSourceBilledSerQuantity Business Object using the ATD1DataSourceBilledSerQuantity Inbound Web Service.</p>
D1-DataSourceMeasurements	<p>Used to create a DataSourceMeasurements.</p> <p>This component invokes the D1-DataSourceMeasurements Business Object using the ATD1DataSourceMeasurements Inbound Web Service.</p>
D1-DataSourceMeasurementDirect	<p>Used to create a DataSourceMeasurementDirect.</p> <p>This component invokes the D1-DataSourceMeasurementDirect Business Object using the ATD1DataSourceMeasurementDirect Inbound Web Service.</p>
D1-DataSourceSPQuantities	<p>Used to create a DataSourceSPQuantities.</p> <p>This component invokes the D1-DataSourceSPQuantities Business Object using the ATD1DataSourceSPQuantities Inbound Web Service.</p>
D1-DataSourceUnbadgedItems	<p>Used to create a DataSourceUnbadgedItems.</p> <p>This component invokes the D1-DataSourceUnbadgedItems Business Object using the ATD1DataSourceUnbadgedItems Inbound Web Service.</p>
D1-FormulaProductType	<p>Used to create a FormulaProductType.</p> <p>This component invokes the D1-FormulaProductType Business Object using the ATD1FormulaProductType Inbound Web Service.</p>
D1-MasterDataSnapshotBillTime	<p>Used to create a MasterDataSnapshotBillTime.</p> <p>This component invokes the D1-MasterDataSnapshotBillTime Business Object using the ATD1MasterDataSnapshotBillTime Inbound Web Service.</p>

Component	Description
D1-MasterDataSnapshotRealTime	<p>Used to create a MasterDataSnapshotRealTime.</p> <p>This component invokes the D1-MasterDataSnapshotRealTime Business Object using the ATD1MasterDataSnapshotRealTime Inbound Web Service.</p>
D1-ServicePointQuantity	<p>Used to create a ServicePointQuantity.</p> <p>This component invokes the D1-ServicePointQuantity Business Object using the ATD1ServicePointQuantity Inbound Web Service.</p>
D1-ServicePointQuantityType	<p>Used to create a ServicePointQuantityType.</p> <p>This component invokes the D1-ServicePointQuantityType Business Object using the ATD1ServicePointQuantityType Inbound Web Service.</p>
D2-DynamicOptionIntSetType	<p>Used to create a Dynamic Option SetType.</p> <p>This component invokes the D2-DynamicOptionIntSetType Business Object using the ATD2DynamicOptionIntSetType Inbound Web Service.</p>
D2-ItemAggregatorType	<p>Used to create a ItemAggregatorType.</p> <p>This component invokes the D1-ItemAggregatorType Business Object using the ATD1ItemAggregatorType Inbound Web Service.</p>
D1-InboundMCSetSyncRequest	<p>Used to create a InboundMCSetSyncRequest.</p> <p>This component invokes the D1-InboundMCSetSyncRequest Business Object using the ATD1ItemAggregatorType Inbound Service.</p>
D1-MCWithCharacteristics	<p>Used to create a MCWithCharacteristics.</p> <p>This component invokes the D1-MCWithCharacteristics Business Object using the ATD1MCWithCharacteristics Inbound Service.</p>
D1-CompleteMCSetBOInbound	<p>Used to create a CompleteMCSetBOInbound.</p> <p>This component invokes the D1-CompleteMCSetBOInbound Business Object using the ATD1CompleteMCSetBOInbound IWS.</p>
D1-CompleteMCSetBO	<p>Used to create a CompleteMCSetBO.</p> <p>This component invokes the D1-CompleteMCSetBO Business Object using the ATD1CompleteMCSetBO Inbound Web Service.</p>

**Forecasting**

<b>Component</b>	<b>Description</b>
D1-DailyProcTimetable	Used to create a DailyProcTimetable.  This component invokes the D1-DailyProcTimetable Business Object using the ATD1DailyProcTimetable Inbound Web Service.
D1-DefinedDatesProcSchedule	Used to create a DefinedDatesProcSchedule  This component invokes the D1-DefinedDatesProcSchedule Business Object using the ATD1DefinedDatesProcSchedule Inbound Web Service.
D1-DimensionCombination	Used to create a DimensionCombination.  This component invokes the D1-DimensionCombination Business Object using the ATD1DimensionCombination Inbound Web Service.
D1-FactorTemperatureProfile	Used to create a FactorTemperatureProfile.  This component invokes the D1-FactorTemperatureProfile Business Object using the ATD1FactorTemperatureProfile Inbound Web Service.
D1-MCComparisonPeriod	Used to create a MCComparisonPeriod.  This component invokes the D1-MCComparisonPeriod Business Object using the ATD1MCComparisonPeriod Inbound Web Service.
D1-MCComparisonTypeStd	Used to create a MCComparisonTypeStd  This component invokes the D1-MCComparisonTypeStd Business Object using the ATD1MCComparisonTypeStd Inbound Web Service.
D1-MulVarFacNum	Used to create a MulVarFacNum.  This component invokes the D1-MulVarFacNum Business Object using the ATD1MulVarFacNum Inbound Web Service.
D1-MulVarFacNumVal	Used to create a MulVarFacNumVal.  This component invokes the D1-MulVarFacNumVal Business Object using the ATD1MulVarFacNumVal Inbound Web Service.

Component	Description
D1-MulVarFacProf	Used to create a MulVarFacProf.
D1-MulVarFacProfVal	This component invokes the D1-MulVarFacProf Business Object using the ATD1MulVarFacProf Inbound Web Service.
D1-MulVarFacProcessor	Used to create a MulVarFacProcessor.
D1-MulVarFacProcessorBS	This component invokes the D1-MulVarFacProcessor Business Object using the ATD1MulVarFacProcessor Inbound Web Service.
D1-SettlementUnit	Used to create a SettlementUnit.  This component invokes the D1-SettlementUnit Business Object using the ATD1SettlementUnit Inbound Web Service.
D1-BadgedItemsDataSource	Used to create a Badged Items Data Source.  This component invokes the D1-BadgedItemsDataSource Business Object using the ATD1BadgedItemsDataSource Inbound Web Service.
D1-StandaloneComparisonInt	Used to create a StandaloneComparisonInt.  This component invokes the D1-StandaloneComparisonInt Business Object using the ATD1StandaloneComparisonInt Inbound Web Service.
D1-StandaloneInterval	Used to create a StandaloneInterval.  This component invokes the D1-StandaloneInterval Business Object using the ATD1StandaloneInterval Inbound Web Service.
D1-StandaloneIntrvlMCType	Used to create a StandaloneIntrvlMCType.  This component invokes the D1-StandaloneIntrvlMCType Business Object using the ATD1StandaloneIntrvlMCType Inbound Web Service.

Component	Description
D2-IntervalAveragingEstimation	Used to create a IntervalAveragingEstimation.  This component invokes the D2-IntervalAveragingEstimation Business Object using the ATD2IntervalAveragingEstimation Inbound Web Service.
D2-IntervalProxyDayEstimation	Used to create a IntervalProxyDayEstimation.  This component invokes the D2-IntervalProxyDayEstimation Business Object using the ATD2IntervalProxyDayEstimation Inbound Web Service.

**IntegrationComponents**

Component	Description
D1-InBoundAggGrpSyncReq	Used to create a InBoundAggGrpSyncReq.  This component invokes the D1-InBoundAggGrpSyncReq Business Object using the ATD1InBoundAggGrpSyncReq Inbound Web Service.
D1-MDMSettlementAggrGrpSync	Used to create a MDMSettlementAggrGrpSync  This component invokes the D1-MDMSettlementAggrGrpSync Business Object using the ATD1MDMSettlementAggrGrpSync Inbound Web Service.
D1-MDMSettlementDCSync	Used to create a MDMSettlementDCSync.  This component invokes the D1-MDMSettlementDCSync Business Object using the ATD1MDMSettlementDCSync Inbound Web Service.
D1-MDMSettlementDeviceSync	Used to create a MDMSettlementDeviceSync.  This component invokes the D1-MDMSettlementDeviceSync Business Object using the ATD1MDMSettlementDeviceSync Inbound Web Service.
D1-MDMSettlementIESync	Used to create a MDMSettlementIESync.  This component invokes the D1-MDMSettlementIESync Business Object using the ATD1MDMSettlementIESync Inbound Web Service.

Component	Description
D1-MDMSettlementMCSync	Used to create a MDMSettlementMCSync.
D1-MDMSettlementSPSync	This component invokes the D1-MDMSettlementMCSync Business Object using the ATD1MCComMDMSettlementMCSync Inbound Web Service.
D1-MDMSettlementSPSync	Used to create a MDMSettlementSPSync.
D1-MDMSettlementSPSync	This component invokes the D1-MDMSettlementSPSync Business Object using the ATD1MDMSettlementSPSync Inbound Web Service.
D1-SettIntegrationMasterConfig	Used to create a SettIntegrationMasterConfig.
D1-SettIntegrationMasterConfig	This component invokes the D1-SettIntegrationMasterConfig Business Object using the ATD1SettIntegrationMasterConfig Inbound Web Service.
D1-SynchronizationAddDevice	Used to create a SynchronizationAddDevice.
D1-SynchronizationAddDevice	This component invokes the D1-SynchronizationAddDevice Business Object using the ATD1SynchronizationAddDevice Inbound Web Service.
D1-SynchronizationAddDC	Used to create a SynchronizationAddDC.
D1-SynchronizationAddDC	This component invokes the D1-SynchronizationAddDC Business Object using the ATD1SynchronizationAddDC Inbound Web Service.
<b>Market Entities</b>	
Component	Description
D1-FixedProfileAward	Used to create a FixedProfileAward.
D1-FixedProfileAward	This component invokes the D1-FixedProfileAward Business Object using the ATD1FixedProfileAward Inbound Web Service.
D1-Market2	Used to create a Market.
D1-Market2	This component invokes the D1-Market2 Business Object using the ATD1Market2 Inbound Web Service.
D1-MarketContract	Used to create a MarketContract.
D1-MarketContract	This component invokes the D1-MarketContract Business Object using the ATD1MarketContract Inbound Web Service.

Component	Description
D1-MarketContractType	Used to create a MarketContractType.
	This component invokes the D1-MarketContractType Business Object using the ATD1MarketContractType Inbound Web Service.
D1-MarketParticipant	Used to create a MarketParticipant.
	This component invokes the D1-MarketParticipant Business Object using the ATD1MarketParticipant Inbound Web Service.
D1-MarketProduct	Used to create a MarketProduct.
	This component invokes the D1-MarketProduct Business Object using the ATD1MarketProduct Inbound Web Service.
D1-MarketProductSet	Used to create a MarketProductSet.
	This component invokes the D1-MarketProductSet Business Object using the ATD1MarketProductSet Inbound Web Service.
D1-MarketProductType	Used to create a MarketProductType.
	This component invokes the D1-MarketProductType Business Object using the ATD1MarketProductType Inbound Web Service.
D1-MktContractType	Used to create a MktContractType.
	This component invokes the D1-MktContractType Business Object using the ATD1MktContractType Inbound Web Service.
D1-MPSet	Used to create a MPSet.
	This component invokes the D1-MPSet Business Object using the ATD1MPSet Inbound Web Service.
D1-PercentageAward	Used to create a PercentageAward.
	This component invokes the D1-PercentageAward Business Object using the ATD1PercentageAward Inbound Web Service.
D1-TrancheAward	Used to create a TrancheAward.
	This component invokes the D1-TrancheAward Business Object using the ATD1TrancheAward Inbound Web Service.

**Settlement Calculations**

<b>Component</b>	<b>Description</b>
D1-AttributDataSnpshBillTime	Used to create a AttributDataSnpshBillTime.  This component invokes the D1-AttributDataSnpshBillTime Business Object using the ATD1AttributDataSnpshBillTime Inbound Web Service.
D1-AttributDataSnpshDaily	Used to create a AttributDataSnpshDaily  This component invokes the D1-AttributDataSnpshDaily Business Object using the ATD1AttributDataSnpshDaily Inbound Web Service.
D1-AttributeDataSnapshotType	Used to create a AttributeDataSnapshotType.  This component invokes the D1-AttributeDataSnapshotType Business Object using the ATD1AttributeDataSnapshotType Inbound Web Service.
D1-AutoReadRegisterType	Used to create a AutoReadRegisterType.  This component invokes the D1-AutoReadRegisterType Business Object using the ATD1AutoReadRegisterType Inbound Web Service.
D1-HowToSendMCInformation	Used to create a HowToSendMCInformation.  This component invokes the D1-HowToSendMCInformation Business Object using the ATD1HowToSendMCInformation Inbound Web Service.
D1-MeasurementDataSnapshotType	Used to create a MeasurementDataSnapshotType.  This component invokes the D1-MeasurementDataSnapshotType Business Object using the ATD1MeasurementDataSnapshotType Inbound Web Service.
D1-MarketProductSet	Used to create a MarketProductSet.  This component invokes the D1-MarketProductSet Business Object using the ATD1MarketProductSet Inbound Web Service.
D1-ServicePointMktPtLite	Used to create a ServicePointMktPtLite.  This component invokes the D1-ServicePointMktPtLite Business Object using the ATD1ServicePointMktPtLite Inbound Web Service.

Component	Description
D1-StandaloneDataRequestMC	Used to create a StandaloneDataRequestMC.
D1-StandaloneDataRequestMCType	This component invokes the D1-StandaloneDataRequestMC Business Object using the ATD1StandaloneDataRequestMC Inbound Web Service.
D1-StandaloneIntrvlComprMCType	Used to create a StandaloneIntrvlComprMCType.  This component invokes the D1-StandaloneIntrvlComprMCType Business Object using the ATD1StandaloneIntrvlComprMCType Inbound Web Service.
D1-StandaloneMcDataReqCommType	Used to create a StandaloneMcDataReqCommType.  This component invokes the D1-StandaloneMcDataReqCommType Business Object using the ATD1StandaloneMcDataReqCommType Inbound Web Service.
D1-StandaloneMcDataRequest	Used to create a StandaloneMcDataRequest.  This component invokes the D1-StandaloneMcDataRequest Business Object using the ATD1StandaloneMcDataRequest Inbound Web Service.
D1-UsageSubscriptionQuantity	Used to create a UsageSubscriptionQuantity.  This component invokes the D1-UsageSubscriptionQuantity Business Object using the ATD1UsageSubscriptionQuantity Inbound Web Service.
D1-USQuantityType	Used to create a USQuantityType.  This component invokes the D1-USQuantityType Business Object using the ATD1USQuantityType Inbound Web Service.
D2-CustomerQuantityCalculation	Used to create a CustomerQuantityCalculation.  This component invokes the D2-CustomerQuantityCalculation Business Object using the ATD2CustomerQuantityCalculation Inbound Web Service.

Component	Description
D2-DynamicOptionIntervalEvent	Used to create a DynamicOptionIntervalEvent.
D2-DynamicOptionIntervalEvent	This component invokes the D2-DynamicOptionIntervalEvent Business Object using the ATD2DynamicOptionIntervalEvent Inbound Web Service.
D2-DynamicOptionIntervalSet	Used to create a DynamicOptionIntervalSet.
D2-DynamicOptionIntervalSet	This component invokes the D2-DynamicOptionIntervalSet Business Object using the ATD2DynamicOptionIntervalSet Inbound Web Service.
D2-DynamicOptionIntervalSetType	Used to create a DynamicOptionIntervalSetType.
D2-DynamicOptionIntervalSetType	This component invokes the D2-DynamicOptionIntervalSetType Business Object using the ATD2DynamicOptionIntervalSetType Inbound Web Service.
D2-ProfileServiceQuantity	Used to create a ProfileServiceQuantity.
D2-ProfileServiceQuantity	This component invokes the D2-ProfileServiceQuantity Business Object using the ATD2ProfileServiceQuantity Inbound Web Service.
D2-SendSettleTransactionIdComm	Used to create a SendSettleTransactionIdComm.
D2-SendSettleTransactionIdComm	This component invokes the D2-SendSettleTransactionIdComm Business Object using the ATD2SendSettleTransactionIdComm Inbound Web Service.
D2-SendSettleTransactionContractComm	Used to create a SendSettleTransactionContractComm.
D2-SendSettleTransactionContractComm	This component invokes the D2-SendSettleTransactionContractComm Business Object using the ATD2SendSettleTransactionContractComm Inbound Web Service.
D2-SendSettleTransactionIdCommType	Used to create a SendSettleTransactionIdCommType.
D2-SendSettleTransactionIdCommType	This component invokes the D2-SendSettleTransactionIdCommType Business Object using the ATD2SendSettleTransactionIdCommType Inbound Web Service.

Component	Description
D2-SendSettleTransactionContractCommType	<p>Used to create a SendSettleTransactionContractCommType.</p> <p>This component invokes the D2-SendSettleTransactionContractCommType Business Object using the ATD2SendSettleTransactionContractCommType Inbound Web Service.</p>
D2-SettAccountServiceType	<p>Used to create a SettAccountServiceType.</p> <p>This component invokes the D2-SettAccountServiceType Business Object using the ATD2SettAccountServiceType Inbound Web Service.</p>
D2-SettlementAccountService	<p>Used to create a SettlementAccountService.</p> <p>This component invokes the D2-SettlementAccountService Business Object using the ATD2SettlementAccountService Inbound Web Service.</p>
D2-SettlementBilledUsage	<p>Used to create a SettlementBilledUsage.</p> <p>This component invokes the D2-SettlementBilledUsage Business Object using the ATD2SettlementBilledUsage Inbound Web Service.</p>
D2-SettlementItem	<p>Used to create a SettlementItem.</p> <p>This component invokes the D2-SettlementItem Business Object using the ATD2SettlementItem Inbound Web Service.</p>
D2-SettlementSubscription	<p>Used to create a SettlementSubscription.</p> <p>This component invokes the D2-SettlementSubscription Business Object using the ATD2SettlementSubscription Inbound Web Service.</p>
D2-UsageCalculationReqType	<p>Used to create a UsageCalculationReqType.</p> <p>This component invokes the D2-UsageCalculationReqType Business Object using the ATD2UsageCalculationReqType Inbound Web Service.</p>
D2-UsageCalculationRequest	<p>Used to create a UsageCalculationRequest.</p> <p>This component invokes the D2-UsageCalculationRequest Business Object using the ATD2UsageCalculationRequest Inbound Web Service.</p>

Component	Description
D2-UsageCalculationType	Used to create a UsageCalculationType.  This component invokes the D2-UsageCalculationType Business Object using the ATD2UsageCalculationType Inbound Web Service.
D2-UsgSubsMarketParticipant	Used to create a UsgSubsMarketParticipant.  This component invokes the D2-UsgSubsMarketParticipant Business Object using the ATD2UsgSubsMarketParticipant Inbound Web Service.

## CX REST API

Component	Description
D1-InstallEventIWS	Used to get an Install event.  This component invokes the D1-GtInstEve Service Script using the D1-InstallEvent Inbound Web Service.
D1>CreateInstallEvent	Used to create an Install event.  This component invokes the D1-CrInsEven Service Script using the D1-InstallEvent Inbound Web Service.
D1-UpdateInstallEvent	Used to update an Install Event.  This component invokes the D1-UpdInsEve Service Script using the D1-InstallEvent Inbound Web Service.
D1>DeleteInstallEvents	Used to delete an Install Event.  This component invokes the D1-DellInsEve Service Script using the D1-InstallEvent Inbound Web Service.
D1-MeterIWS	Used to get a Meter.  This component invokes the D1-GetMeter Service Script using the D1-Meter Inbound Web Service.
D1-MeterIWSPost	Used to create a Meter.  This component invokes the D1-CreateMtr Service Script using the D1-Meter Inbound Web Service.
D1-MeterIWSPut	Used to update a Meter.  This component invokes the D1-UpdateMtr Service Script using the D1-Meter Inbound Web Service.

Component	Description
D1-MeterIWSDelete	Used to delete a Meter.
D1-ServicePointRestIWS	This component invokes the D1-DeleteMtr Service Script using the D1-Meter Inbound Web Service.
D1-CreateServicePointRestIWS	Used to get a Service Point.
D1-UpdateServicePointRestIWS	This component invokes the D1-GetSPoint Service Script using the D1-ServicePoint Inbound Web Service.
D1-DeleteServicePointRestIWS	Used to create a Service Point.
D1-ItemIWS	This component invokes the D1-CreateSP Service Script using the D1-ServicePoint Inbound Web Service.
D1-DeleteServicePointRestIWS	Used to update a Service Point.
D1-DeleteServicePointRestIWS	This component invokes the D1-UpdateSPt Service Script using the D1-ServicePoint Inbound Web Service.
D1-ItemIWSPost	Used to delete a Service Point.
D1-ItemIWSPut	This component invokes the D1-DeleteSP Service Script using the D1-ServicePoint Inbound Web Service.
D1-ItemIWSPPut	Used to get an Item.
D1-ItemIWSPDelete	This component invokes the D1-GetItem Service Script using the D1-Item Inbound Web Service.
D1-ItemIWSPDelete	Used to create an Item.
D1-ItemIWSPDelete	This component invokes the D1-CreateItm Service Script using the D1-Item Inbound Web Service.
D1-ItemIWSPDelete	Used to update an Item.
D1-ItemIWSPDelete	This component invokes the D1-UpdItem Service Script using the D1-Item Inbound Web Service.
D1-ItemIWSPDelete	Used to delete an Item.
D1-ItemIWSPDelete	This component invokes the D1-DelItem Service Script using the D1-Item Inbound Web Service.
D1-CreateUsageSubscriptionRestIWS	Used to create a Usage Subscription.
D1-CreateUsageSubscriptionRestIWS	This component invokes the D1-CreateUS Service Script using the D1-UsageSubscription Inbound Web Service.

Component	Description
D1-DeleteUsageSubscriptionRestIWS	Used to delete a Usage Subscription.
	This component invokes the D1-DeleteUS Service Script using the D1-UsageSubscription Inbound Web Service.
D1-GetUsageSubscriptionRestIWS	Used to get a Usage Subscription.
	This component invokes D1-GetUsgSub Script using D1-UsageSubscription Web Service.
D1-UsageTransactionDelete	Used to delete a Usage Transaction.
	This component invokes the D1-DelUsgTrn Script using the D1-UsageTransaction IWS.
D1-UsageTransactionGet	Used to get a Usage Transaction.
	This component invokes D1-GtUsgTran Service Script using the D1-UsageTransaction Web Service.
D1-UsageTransactionPost	Used to create a Usage Transaction.
	This component invokes D1-CrUsgTran Service Script using the D1-UsageTransaction IWS.
D1-UsageTransactionPut	Used to update an Usage Transaction.
	This component invokes D1-UpUsgTran Service Script using the D1-UsageTransaction IWS.

# Oracle Utilities Smart Grid Gateway Components

Oracle Utilities Smart Grid Gateway provides pre-built vendor adapters that link AMI head-end systems with other utility applications, such as meter data management, customer care and billing, and network management systems.

This section lists the adapters and the respective starter components available in each adapter under the **Admin** and **Transactional** functional areas:

- [Service and Measurement Data Foundation](#)
- [Echelon](#)
- [Itron Openway](#)
- [Landis + Gyr](#)
- [Sensus](#)
- [SSN](#)

**Pre-requisites:** The Inbound Web Service service using the respective business object should be available in the application.

**Additional Notes:** Failure while creating, reading, or updating the component is logged in the test execution report, thus facilitating debugging/analysis of the problem.

## Service and Measurement Data Foundation

Component	Description
D1-CommandSet	Used to maintain command set for grouping command request business objects.  This component invokes the D1-CommandSet Business Object using the ATD1CommandSet Inbound Web Service.
D1-DeviceDecommission	Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Decommission record.  This component invokes the D1-DeviceDecommission Business Object using the ATD1DeviceDecommission Inbound Web Service.
D1-OnDemandReadScalar	Used to perform actions such as ADD, READ, UPDATE and DELETE an On Demand Read Scalar record.  This component invokes the D1-OnDemandReadScalar Business Object using the ATD1OnDemandReadScalar Inbound Web Service.

Component	Description
D1-RemoteConnect	Used to perform actions such as ADD, READ, UPDATE and DELETE a Remote Connect record.
	This component invokes the D1-RemoteConnect Business Object using the ATD1RemoteConnect Inbound Web Service.
D1-OnDemandReadInterval	Used to perform actions such as ADD, READ, UPDATE and DELETE a On Demand Read Interval record.
	This component invokes the D1-OnDemandReadInterval Business Object using the ATD1OnDemandReadInterval Inbound Web Service.
D1-RemoteDisconnect	Used to perform actions such as ADD, READ, UPDATE and DELETE a Remote Disconnect record.
	This component invokes the D1-RemoteDisconnect Business Object using the ATD1RemoteDisconnect Inbound Web Service.
D1-DeviceCommission	Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Commission record.
	This component invokes the D1-DeviceCommission Business Object using the ATD1DeviceCommission Inbound Web Service.
D1-DeviceStatusCheck	Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Status Check record.
	This component invokes the D1-DeviceStatusCheck Business Object using the ATD1DeviceStatusCheck Inbound Web Service.
D1-PayloadStatistics	Used to perform actions such as ADD, READ, UPDATE and DELETE a Payload Statistics record.
	This component invokes the D1-PayloadStatistics Business Object using the ATD1PayloadStatistics Inbound Web Service.
D1-PayloadErrorNotif	Used to perform actions such as ADD, READ, UPDATE and DELETE a Payload Error Notification record.
	This component invokes the D1-PayloadErrorNotif Business Object using the ATD1PayloadErrorNotif Inbound Web Service.

Component	Description
D1-BulkRequestHeader	Used to perform actions such as ADD, READ, UPDATE and DELETE a Bulk Request Header record.
D1-BulkResponse	This component invokes the D1-BulkRequestHeader Business Object using the ATD1BulkRequestHeader Inbound Web Service.
D1-MultiDeviceStatusCheck	Used to perform actions such as ADD, READ, UPDATE and DELETE a Multi Device Status Check record.
D1-RemoteDisconnectType	This component invokes the D1-MultiDeviceStatusCheck Business Object using the ATD1MultiDeviceStatusCheck Inbound Web Service.
D1-DeviceDecommissionType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Remote Disconnect Type record.
D1-OnDemandReadScalarType	This component invokes the D1-RemoteDisconnectType Business Object using the ATD1RemoteDisconnectType Inbound Web Service.
D1-DeviceDecommissionType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Decommission Type record.
D1-OnDemandReadScalarType	This component invokes the D1-DeviceDecommissionType Business Object using the ATD1DeviceDecommissionType Inbound Web Service.
D1-OnDemandReadScalarType	Used to perform actions such as ADD, READ, UPDATE and DELETE a On Demand Read Scalar Type record.
D1-OnDemandReadScalarType	This component invokes the D1-OnDemandReadScalarType Business Object using the ATD1OnDemandReadScalarType Inbound Web Service.

Component	Description
D1-OnDemandReadIntervalType	Used to perform actions such as ADD, READ, UPDATE and DELETE a On Demand Read Interval Type record.
	This component invokes the D1-OnDemandReadIntervalType Business Object using the ATD1OnDemandReadIntervalType Inbound Web Service.
D1-DeviceStatusCheckType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Status Check Type record.
	This component invokes the D1-DeviceStatusCheckType Business Object using the ATD1DeviceStatusCheckType Inbound Web Service.
D1-DeviceCommissionType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Commission Type record.
	This component invokes the D1-DeviceCommissionType Business Object using the ATD1DeviceCommissionType Inbound Web Service.
D1-PayloadNotifType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Payload Notification Type record.
	This component invokes the D1-PayloadNotifType Business Object using the ATD1PayloadNotifType Inbound Web Service.
D1-BulkRequestHeaderType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Bulk Request Header Type record.
	This component invokes the D1-BulkRequestHeaderType Business Object using the ATD1BulkRequestHeaderType Inbound Web Service.
D1-BulkResponseType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Bulk Response Type record.
	This component invokes the D1-BulkResponseType Business Object using the ATD1BulkResponseType Inbound Web Service.

Component	Description
D1-MultiDeviceStatusCheckType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Multi Device Status Check Type record.
	This component invokes the D1-MultiDeviceStatusCheckType Business Object using the ATD1MultiDeviceStatusCheckType Inbound Web Service.
D1-CommissionDevice	Used to perform actions such as ADD, READ, UPDATE and DELETE a Commission Device record.
	This component invokes the D1-CommissionDevice Business Object using the ATD1CommissionDevice Inbound Web Service.
D1-ConnectDevice	Used to perform actions such as ADD, READ, UPDATE and DELETE a Connect Device record.
	This component invokes the D1-ConnectDevice Business Object using the ATD1ConnectDevice Inbound Web Service.
D1-DisconnectDevice	Used to perform actions such as ADD, READ, UPDATE and DELETE a Disconnect Device record.
	This component invokes the D1-DisconnectDevice Business Object using the ATD1DisconnectDevice Inbound Web Service.
D1-DecommissionDevice	Used to perform actions such as ADD, READ, UPDATE and DELETE a Decommission Device record.
	This component invokes the D1-DecommissionDevice Business Object using the ATD1DecommissionDevice Inbound Web Service.
D1>CreateIMD	Used to perform actions such as ADD, READ, UPDATE and DELETE a Create IMD record.
	This component invokes the D1>CreateIMD Business Object using the ATD1CreateIMD Inbound Web Service.
D1-StandardDeviceEvent	Used to perform actions such as ADD, READ, UPDATE and DELETE a Standard Device Event record.
	This component invokes the D1-StandardDeviceEvent Business Object using the ATD1StandardDeviceEvent Inbound Web Service.

Component	Description
D1-DeviceEvtComResp	Used to perform actions such as ADD, READ, UPDATE and DELETE a DeviceEvtComResp record.
D1-DeviceEventComRespType	This component invokes the D1-DeviceEvtComResp Business Object using the ATD1DeviceEvtComResp Inbound Web Service.
D1-HowToProcDvcEvtsInformation	Used to perform actions such as ADD, READ, UPDATE and DELETE a DeviceEventComRespType record.
D1-HowToProcDvcEvtsInformation	This component invokes the D1-DeviceEventComRespType Business Object using the ATD1DeviceEventComRespType Inbound Web Service.
D1-HowToSendActivityResponse	Used to perform actions such as ADD, READ, UPDATE and DELETE a HowToProcDvcEvtsInformation record.
D1-HowToSendActivityResponse	This component invokes the D1-HowToProcDvcEvtsInformation Business Object using the ATD1HowToProcDvcEvtsInformation Inbound Web Service.
D1-HowToCreateActivityOBComm	Used to perform actions such as ADD, READ, UPDATE and DELETE a HowToSendActivityResponse record.
D1-HowToCreateActivityOBComm	This component invokes the D1-HowToSendActivityResponse Business Object using the ATD1HowToSendActivityResponse Inbound Web Service.
D1-StdEventNameLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a HowToCreateActivityOBComm record.
D1-StdEventNameLookup	This component invokes the D1-HowToCreateActivityOBComm Business Object using the ATD1HowToCreateActivityOBComm Inbound Web Service.

Component	Description
D1-DvcEventCategoryLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Event Category Lookup record.
	This component invokes the D1-DvcEventCategoryLookup Business Object using the ATD1DvcEventCategoryLookup Inbound Web Service.
D1-DeviceEventMappingLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Event Mapping Lookup record.
	This component invokes the D1-DeviceEventMappingLookup Business Object using the ATD1DeviceEventMappingLookup Inbound Web Service.
D1-SGGAdapterConfigSheet	Used to perform actions such as ADD, READ, UPDATE and DELETE a SGG Adapter Config Sheet record.
	This component invokes the D1-SGGAdapterConfigSheet Business Object using the ATD1SGGAdapterConfigSheet Inbound Web Service.
D1-SGGMasterConfiguration	Used to perform actions such as ADD, READ, UPDATE and DELETE a SGG Master Configuration record.
	This component invokes the D1-SGGMasterConfiguration Business Object using the ATD1SGGMasterConfiguration Inbound Web Service.
D1-OutboundMessage	Used to perform actions such as ADD, READ, UPDATE and DELETE an Outbound Message record.
	This component invokes the D1-OutboundMessage Business Object using the ATD1OutboundMessage Inbound Web Service.
D1-GetComplEvtIdFromCommId	Used to get Completion event from the SQL set in the AT-D1COMMDEV zone.
	This component invokes the D1-CommissionDevice Business Object using the ATCOMPEVTID Inbound Web Service.
	BS Used: AT-COMPEVTID

Component	Description
D1-DeviceDeregistrationType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Deregistration Type.  This component invokes the D1-DeviceDeregistrationType Business Object using the ATD1DeviceDeregistrationType Inbound Web Service.
D1-DeviceDeregistration	Used to perform actions such as ADD, READ, and UPDATE and DELETE Device Deregistration This component invokes the D1-DeviceDeregistration Business Object using the ATD1DeviceDeregistration Inbound Web Service.
D1-DeregisterDevice	Used to perform actions such as ADD, READ, UPDATE and DELETE a Deregister Device.  This component invokes the D1- DeregisterDevice Business Object using the ATD1DeregisterDevice Inbound Web Service.

## Echelon

Component	Description
D4-ReadBillingDataNtfType	Used to ADD, UPDATE, READ, and DELETE Read Billing Data Notification Type business object for Echelon (D4) Adapter.  This component invokes the D4-ReadBillingDataNtfType Business Object using the ATD4ReadBillingDataNtfType Inbound Web Service.
D4-ReadBillingDataType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Read Billing Data outbound communication type.  This component invokes the D4-ReadBillingDataType Business Object using the ATD4ReadBillingDataType Inbound Web Service.
D4-ReadLoadProfileNtfType	Used to ADD, UPDATE, READ, and DELETE Read Load Profile Notification Type business object for Echelon (D4) Adapter.  This component invokes the D4-ReadLoadProfileNtfType Business Object using the ATD4ReadLoadProfileNtfType Inbound Web Service.

Component	Description
D4-ReadLoadProfileType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Read Load Profile outbound communication type.
D4-CommandFailureLookup	This component invokes the D4-ReadLoadProfileType Business Object using the ATD4ReadLoadProfileType Inbound Web Service.
D4-CommandHistoryStatusLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon Command Failure Lookup record.
D4-CommandHistoryStatusLookup	This component invokes the D4-CommandFailureLookup Business Object using the ATD4CommandFailureLookup Inbound Web Service.
D4-CumuDemandStatusTypeLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon Command History Status Lookup record.
D4-CumuDemandStatusTypeLookup	This component invokes the D4-CommandHistoryStatusLookup Business Object using the ATD4CommandHistoryStatusLookup Inbound Web Service.
D4-DeviceAtmModeTypeLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon cumulative demand status type record.
D4-DeviceAtmModeTypeLookup	This component invokes the D4-CumuDemandStatusTypeLookup Business Object using the ATD4CumuDemandStatusTypeLookup Inbound Web Service.
D4-DeviceCommandLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon Device Atm Mode type record.
D4-DeviceCommandLookup	This component invokes the D4-DeviceAtmModeTypeLookup Business Object using the ATD4DeviceAtmModeTypeLookup Inbound Web Service.
D4-DeviceCommandLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon Device Command record.
D4-DeviceCommandLookup	This component invokes the D4-DeviceCommandLookup Business Object using the ATD4DeviceCommandLookup Inbound Web Service.

Component	Description
D4-DeviceEventMappingLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon Device Event Mapping Lookup record.
	This component invokes the D4-DeviceEventMappingLookup Business Object using the ATD4DeviceEventMappingLookup Inbound Web Service.
D4-DeviceResultTypeLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon Device Result Type record.
	This component invokes the D4-DeviceResultTypeLookup Business Object using the ATD4DeviceResultTypeLookup Inbound Web Service.
D4-DeviceStatusLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon Device Status record.
	This component invokes the D4-DeviceStatusLookup Business Object using the ATD4DeviceStatusLookup Inbound Web Service.
D4-HeadendUOMLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon Headend UOM Lookup record.
	This component invokes the D4-HeadendUOMLookup Business Object using the ATD4HeadendUOMLookup Inbound Web Service.
D4-InitialLoadIMDInterval	Used to add Initial Measurement Interval Data for Echelon Adapter.
	This component invokes the D4-InitialLoadIMDInterval Business Object using the ATD4InitialLoadIMDInterval Inbound Web Service.
D4-InitialLoadIMDScalar	Used to ADD Initial Measurement Scalar Data for Echelon Adapter.
	This component invokes the D4-InitialLoadIMDScalar Business Object using the ATD4InitialLoadIMDScalar Inbound Web Service.
D4-SmartMeter	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Smart Meter for Echelon adapter.
	This component invokes the D4-SmartMeter Business Object using the ATD4SmartMeter Inbound Web Service.

Component	Description
D4-AddMeterRequestType	Used to perform actions such as ADD, READ, and UPDATE and DELETE an Add Meter Request Type for Echelon adapter.
	This component invokes the D4-AddMeterRequestType Business Object using the ATD4AddMeterRequestType Inbound Web Service.
D4-ConnectLoadNtfTyp	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Connect Load Notification Type for Echelon adapter.
	This component invokes the D4-ConnectLoadNtfTyp Business Object using the ATD4ConnectLoadNtfTyp Inbound Web Service.
D4-ConnectLoadType	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Connect Load Type for Echelon adapter.
	This component invokes the D4-ConnectLoadType Business Object using the ATD4ConnectLoadType Inbound Web Service.
D4-DecommMeterNotificatType	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Decommission Meter Notification Type for Echelon adapter.
	This component invokes the D4-DecommMeterNotificatType Business Object using the ATD4DecommMeterNotificatType Inbound Web Service.
D4-DecommMeterRequestType	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Decommission Meter Request Type for Echelon adapter.
	This component invokes the D4-DecommMeterRequestType Business Object using the ATD4DecommMeterRequestType Inbound Web Service.
D4-DeviceTypeLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Device Type Lookup for Echelon adapter.
	This component invokes the D4-DeviceTypeLookup Business Object using the ATD4DeviceTypeLookup Inbound Web Service.

Component	Description
D4-DisconnectLoadNtfTyp	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Disconnect Load Notification Type for Echelon adapter.
	This component invokes the D4-DisconnectLoadNtfTyp Business Object using the ATD4DisconnectLoadNtfTyp Inbound Web Service.
D4-DisconnectLoadType	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Disconnect Load Type for Echelon adapter.
	This component invokes the D4-DisconnectLoadType Business Object using the ATD4DisconnectLoadType Inbound Web Service.
D4-DisconnectPriorityLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Disconnect Priority Lookup for Echelon adapter.
	This component invokes the D4-DisconnectPriorityLookup Business Object using the ATD4DisconnectPriorityLookup Inbound Web Service.
D4-EntityTypeLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Entity Type Lookup for Echelon adapter.
	This component invokes the D4-EntityTypeLookup Business Object using the ATD4EntityTypeLookup Inbound Web Service.
D4-ExtServiceReturnCodeLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a ExtService Return Code Lookup for Echelon adapter.
	This component invokes the D4-ExtServiceReturnCodeLookup Business Object using the ATD4ExtServiceReturnCodeLookup Inbound Web Service.
D4-GatewayTypeLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Gateway Type Lookup for Echelon adapter.
	This component invokes the D4-GatewayTypeLookup Business Object using the ATD4GatewayTypeLookup Inbound Web Service.

Component	Description
D4-IntStsCodeToCondMapLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a IntStsCodeToCondMapLookup for Echelon adapter.
	This component invokes the D4-IntStsCodeToCondMapLookup Business Object using the ATD4IntStsCodeToCondMapLookup Inbound Web Service.
D4-LoadVoltageStatusTypeLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Load Voltage Status Type Lookup for Echelon adapter.
	This component invokes the D4-LoadVoltageStatusTypeLookup Business Object using the ATD4LoadVoltageStatusTypeLookup Inbound Web Service.
D4-ReadLoadStatusNtfTyp	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Read Load Status Notification Type for Echelon adapter.
	This component invokes the D4-ReadLoadStatusNtfTyp Business Object using the ATD4ReadLoadStatusNtfTyp Inbound Web Service.
D4-ReadLoadStatusType	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Read Load Status Type for Echelon adapter.
	This component invokes the D4-ReadLoadStatusType Business Object using the ATD4ReadLoadStatusType Inbound Web Service.
D4-RemoteReconnectStatusLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Remote Reconnect Status Lookup for Echelon adapter.
	This component invokes the D4-RemoteReconnectStatusLookup Business Object using the ATD4RemoteReconnectStatusLookup Inbound Web Service.
D4-RetrieveMeterIdentifierType	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Retrieve Meter Identifier Type for Echelon adapter.
	This component invokes the D4-RetrieveMeterIdentifierType Business Object using the ATD4RetrieveMeterIdentifierType Inbound Web Service.

Component	Description
D4-RetrieveMeterInfoType	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Retrieve Meter Information Type for Echelon adapter.
D4-SetATMConfNotificationType	This component invokes the D4-RetrieveMeterInfoType Business Object using the ATD4RetrieveMeterInfoType Inbound Web Service.
D4-SetATMConfigurationType	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Set ATM Configuration Notification Type for Echelon adapter.
D4-SetATMConfigurationType	This component invokes the D4-SetATMConfNotificationType Business Object using the ATD4SetATMConfNotificationType Inbound Web Service.
D4-TaskPriorityLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Task Priority Lookup for Echelon adapter.
D4-TaskPriorityLookup	This component invokes the D4-SetATMConfigurationType Business Object using the ATD4SetATMConfigurationType Inbound Web Service.
D4-TimeZoneManagerLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Time Zone Manager Lookup Echelon adapter.
D4-GetCommunicationId	This component invokes the D4-TimeZoneManagerLookup Business Object using the ATD4TimeZoneManagerLookup Inbound Web Service.
D4-GetCommunicationId	Used to get a Completion Event from the SQL set in the AT-D4SATMCON zone.
D4-GetCommunicationId	This component invokes the D4-SetATMConfiguration Business Object using the ATD4SETATMCONFIG Inbound Web Service.
BS Used: AT-D4SETATMCONFIG	

**Itron Openway**

Component	Description
D8-ReadIntervalType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Itron - Contingency Read Type (Interval) outbound communication type.
	This component invokes the D8-ReadIntervalType Business Object using the ATD8ReadIntervalType Inbound Web Service.
D8-ReadScalarType	Used to perform actions such as ADD, READ, UPDATE and DELETE an Itron - Contingency Read Type (Scalar) outbound communication type.
	This component invokes the D8-ReadScalarType Business Object using the ATD8ReadScalarType Inbound Web Service.
D8-ReadResultType	Used to perform actions such as ADD, READ, UPDATE and DELETE an Itron - Contingency Read Result Type inbound communication type.
	This component invokes the D8-ReadResultType Business Object using the ATD8ReadResultType Inbound Web Service.
D8-DeviceEventMappingLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a Value for Itron - Device Event Mapping extendable Lookup.
	This component invokes the D8-DeviceEventMappingLookup Business Object using the ATD8DeviceEventMappingLookup Inbound Web Service.
D8-HeadendUOMLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a Value for Itron UOM Code to Standard UOM Mapping extendable Lookup.
	This component invokes the D8-HeadendUOMLookup Business Object using the ATD8HeadendUOMLookup Inbound Web Service.
D8-ItronVersions	Used to perform actions such as ADD, READ, UPDATE and DELETE a Value for Itron - Versions Lookup extendable Lookup.
	This component invokes the D8-ItronVersions Business Object using the ATD8ItronVersions Inbound Web Service.

Component	Description
D8-JobStatusLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE of an Itron OpenWay Job Status record.
D8-PingByEndpointsMDRespType	This component invokes the D8-JobStatusLookup Business Object using the ATD8JobStatusLookup Inbound Web Service.
D8-PingByEndpointsResponseType	Used to perform actions such as ADD, READ, UPDATE and DELETE of an Itron OpenWay Ping By Endpoints MD Response Type record.
D8-PingByEndpointsResponseResponseType	This component invokes the D8-PingByEndpointsMDRespType Business Object using the ATD8PingByEndpointsMDRespType Inbound Web Service.
D8-PingByEndpointsMultiDvcType	Used to perform actions such as ADD, READ, UPDATE and DELETE of an Itron OpenWay Ping By Endpoints Response Type record.
D8-PingByEndpointsResponseType	This component invokes the D8-PingByEndpointsResponseType Business Object using the ATD8PingByEndpointsResponseType Inbound Web Service.
D8-PingByEndpointsMultiDvcType	Used to perform actions such as ADD, READ, UPDATE and DELETE of an Itron OpenWay Ping By Endpoints Multi Device Type record.
D8-PingByEndpointsType	This component invokes the D8-PingByEndpointsMultiDvcType Business Object using the ATD8PingByEndpointsMultiDvcType Inbound Web Service.
D8-PingByEndpointsType	Used to perform actions such as ADD, READ, UPDATE and DELETE of an Itron OpenWay Ping By Endpoints Type record.
D8-InitialLoadIMDInterval	This component invokes the D8-PingByEndpointsType Business Object using the ATD8PingByEndpointsType Inbound Web Service.
D8-InitialLoadIMDInterval	Used to ADD Initial Measurement Interval Data for Itron OpenWay Adapter.
D8-InitialLoadIMDInterval	This component invokes the D8-InitialLoadIMDInterval Business Object using the ATD8InitialLoadIMDInterval Inbound Web Service.

Component	Description
D8-InitialLoadIMDScalar	Used to ADD Initial Measurement Scalar Data for Itron OpenWay Adapter.
	This component invokes the D8-InitialLoadIMDScalar Business Object using the ATD8InitialLoadIMDScalar Inbound Web Service.
D8-AddMeterDefinitionsType	Used to perform actions such as ADD, READ, UPDATE and DELETE an Add Meter Definitions Type for Itron.
	This component invokes the D8-AddMeterDefinitionsType Business Object using the ATD8AddMeterDefinitionsType Inbound Web Service.
D8-AppGroupLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE an App Group Lookup for Itron.
	This component invokes the D8-AppGroupLookup Business Object using the ATD8AppGroupLookup Inbound Web Service.
D8-DeregisterMeterType	Used to perform actions such as ADD, READ, UPDATE and DELETE an Deregister Meter Type for Itron.
	This component invokes the D8-DeregisterMeterType Business Object using the ATD8DeregisterMeterType Inbound Web Service.
D8-DetLoadSideVolBytMtrRsltTyp	Used to perform actions such as ADD, READ, UPDATE and DELETE an Detect Load Side Voltage By tMeter Result Type for Itron.
	This component invokes the D8-DetLoadSideVolBytMtrRsltTyp Business Object using the ATD8DetLoadSideVolBytMtrRsltTyp Inbound Web Service.
D8-DetectLoadSideVoltageMtrTyp	Used to perform actions such as ADD, READ, UPDATE and DELETE a Detect Load Side Voltage Meter Type for Itron.
	This component invokes the D8-DetectLoadSideVoltageMtrTyp Business Object using the ATD8DetectLoadSideVoltageMtrTyp Inbound Web Service.

Component	Description
D8-DisconnectMeterResultType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Disconnect Meter Result Type for Itron.
	This component invokes the D8-DisconnectMeterResultType Business Object using the ATD8DisconnectMeterResultType Inbound Web Service.
D8-DisconnectMeterType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Disconnect Meter Type for Itron.
	This component invokes the D8-DisconnectMeterType Business Object using the ATD8DisconnectMeterType Inbound Web Service.
D8-DisconnectSwitchStateLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a Disconnect Switch State Lookup for Itron.
	This component invokes the D8-DisconnectSwitchStateLookup Business Object using the ATD8DisconnectSwitchStateLookup Inbound Web Service.
D8-DvcStatusMappingLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Status Mapping Lookup for Itron.
	This component invokes the D8-DvcStatusMappingLookup Business Object using the ATD8DvcStatusMappingLookup Inbound Web Service.
D8-FailureReasonLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a Failure Reason Lookup for Itron.
	This component invokes the D8-FailureReasonLookup Business Object using the ATD8FailureReasonLookup Inbound Web Service.
D8-IntStsCodeToCondMapLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a IntStsCodeToCondMapLookup for Itron.
	This component invokes the D8-IntStsCodeToCondMapLookup Business Object using the ATD8IntStsCodeToCondMapLookup Inbound Web Service.

Component	Description
D8-InterrogateByGroupRsltType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Interrogate By Group Result Type for Itron.
	This component invokes the D8-InterrogateByGroupRsltType Business Object using the ATD8InterrogateByGroupRsltType Inbound Web Service.
D8-InterrogateByGroupType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Interrogate By Group Type for Itron.
	This component invokes the D8-InterrogateByGroupType Business Object using the ATD8InterrogateByGroupType Inbound Web Service.
D8-ReadDisconStBytMtrRsltType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Read Disconnect State By Meter Result Type for Itron.
	This component invokes the D8-ReadDisconStBytMtrRsltType Business Object using the ATD8ReadDisconStBytMtrRsltType Inbound Web Service.
D8-ReadDisconStateByMtrType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Read Disconnect State By Meter Type for Itron.
	This component invokes the D8-ReadDisconStateByMtrType Business Object using the ATD8ReadDisconStateByMtrType Inbound Web Service.
D8-ReconnectMeterResultType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Reconnect Meter Result Type for Itron.
	This component invokes the D8-ReconnectMeterResultType Business Object using the ATD8ReconnectMeterResultType Inbound Web Service.
D8-ReconnectMeterType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Reconnect Meter Type for Itron.
	This component invokes the D8-ReconnectMeterType Business Object using the ATD8ReconnectMeterType Inbound Web Service.

Component	Description
D8-ResultLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a Result Lookup for Itron.
	This component invokes the D8-ResultLookup Business Object using the ATD8ResultLookup Inbound Web Service.
D8-ScheduleRead	Used to perform actions such as ADD, READ, UPDATE and DELETE a Schedule Read for Itron.
	This component invokes the D8-ScheduleRead Business Object using the ATD8ScheduleRead Inbound Web Service.
D8-ScheduleReadType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Schedule Read Type for Itron.
	This component invokes the D8-ScheduleReadType Business Object using the ATD8ScheduleReadType Inbound Web Service.
D8-RptSelfReadOptionLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a RptSelfReadOptionLookup for Itron.
	This component invokes the D8-RptSelfReadOptionLookup Business Object using the ATD8RptSelfReadOptionLookup Inbound Web Service.
D8-AddMeterToHarness	Used to add a meter to the test harness.
D8-SetCommissionRequest	Used to set commission to True/False for a device.
D8-SetVoltage	Used to set voltage for a device.

## Landis + Gyr

Component	Description
D3-InitMtReadByMtNumType	Used to perform actions such as ADD, READ, UPDATE and DELETE an Initiate Meter Read By Meter (Multispeak) outbound communication type.
	This component invokes the D3-InitMtReadByMtNumType Business Object using the ATD3InitMtReadByMtNumType Inbound Web Service.

Component	Description
D3-IntStsCodeToCondMapLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a value for L+G Interval Status Code to Condition Mapping extendable lookup.
	This component invokes the D3-IntStsCodeToCondMapLookup Business Object using the ATD3IntStsCodeToCondMapLookup Inbound Web Service.
D3-ReadingChgNotificationType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Reading Change Notification inbound communication type.
	This component invokes the D3-ReadingChgNotificationType Business Object using the ATD3ReadingChgNotificationType Inbound Web Service.
D3-DeviceEventMappingLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Event Mapping Lookup record.
	This component invokes the D3-DeviceEventMappingLookup Business Object using the ATD3DeviceEventMappingLookup Inbound Web Service.
D3-HeadendUOMLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a Head End UOM Lookup record.
	This component invokes the D3-HeadendUOMLookup Business Object using the ATD3HeadendUOMLookup Inbound Web Service.
D3-InitialLoadIMDInterval	Used to ADD Initial Measurement Interval Data for L+G Adapter.
	This component invokes the D3-InitialLoadIMDInterval Business Object using the ATD3InitialLoadIMDInterval Inbound Web Service.
D3-InitialLoadIMDScalar	Used to ADD Initial Measurement Scalar Data for L+G Adapter.
	This component invokes the D3-InitialLoadIMDScalar Business Object using the ATD3InitialLoadIMDScalar Inbound Web Service.

Component	Description
D3-ConnectDisconStateChgNtfTyp	Used to perform actions such as ADD, READ, UPDATE and DELETE a Connect Disconnect State Change Notification Type record.
D3-InitiateConnectDisconType	This component invokes the D3-ConnectDisconStateChgNtfTyp Business Object using the ATD3ConnectDisconStateChgNtfTyp Inbound Web Service.
D3-LoadActionCodeLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a Initiate Connect Disconnect Type record.
D3-LoadActionCodeLookup	This component invokes the D3-InitiateConnectDisconType Business Object using the ATD3InitiateConnectDisconType Inbound Web Service.
D3-MeterAddNotificationMSType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Load Action Code Lookup record.
D3-MeterAddNotificationMSType	This component invokes the D3-LoadActionCodeLookup Business Object using the ATD3LoadActionCodeLookup Inbound Web Service.
D3-MtrRmvNotifMultiSpkType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Meter Add Notification MS Type record.
D3-MtrRmvNotifMultiSpkType	This component invokes the D3-MeterAddNotificationMSType Business Object using the ATD3MeterAddNotificationMSType Inbound Web Service.
D3-ScheduleDemandResetRespTyp	Used to perform actions such as ADD, READ, UPDATE and DELETE a Meter Remove Notification MultiSpk Type record.
D3-ScheduleDemandResetRespTyp	This component invokes the D3-MtrRmvNotifMultiSpkType Business Object using the ATD3MtrRmvNotifMultiSpkType Inbound Web Service.
D3-ScheduleDemandResetRespTyp	Used to perform actions such as ADD, READ, UPDATE and DELETE a Schedule Demand Reset Resp Type record.
D3-ScheduleDemandResetRespTyp	This component invokes the D3-ScheduleDemandResetRespTyp Business Object using the ATD3ScheduleDemandResetRespTyp Inbound Web Service.

Component	Description
D3-ScheduleDemandResetType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Schedule Demand Reset Type record.
D3-AddMeterTo Harness	This component invokes the D3-ScheduleDemandResetType Business Object using the ATD3ScheduleDemandResetType Inbound Web Service.
D3-AddMeterTo Harness	Used to perform AddMeterToHarness to the LG test harness.
D3-AddMeterTo Harness	This component invokes the D3-AddMeterToHarness Business Object using the ATD3AddMeterToHarness Inbound Web Service.
D3-SetCommissionRequest	Used to perform actions such as ADD, READ, UPDATE and DELETE a SetCommissionRequest Type record.
D3-SetCommissionRequest	This component invokes the D3-SetCommissionRequest using the ATD3SetCommissionRequest Inbound Web Service.
D3-AddMeterToInventoryMSType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Add Meter To Inventory MS Type record.
D3-AddMeterToInventoryMSType	This component invokes the D3-AddMeterToInventoryMSType using the ATD3AddMeterToInventoryMSType Inbound Web Service.
D3-AddMeterToInventoryMultiSp	Used to perform actions such as ADD, READ, UPDATE and DELETE a Add Meter To Inventory Multi Sp record.
D3-AddMeterToInventoryMultiSp	This component invokes the D3-AddMeterToInventoryMultiSp using the ATD3AddMeterToInventoryMultiSp Inbound Web Service.
D3-MeterRetireNotificationType	Used to perform actions such as ADD, READ, UPDATE and DELETE a MeterRetireNotificationType record.
D3-MeterRetireNotificationType	This component invokes the D3-MeterRetireNotificationType using the ATD3MeterRetireNotificationType Inbound Web Service.

Component	Description
D3-MeterRetireNotification	Used to perform actions such as ADD, READ, UPDATE and DELETE a MeterRetireNotification record.  This component invokes the D3-MeterRetireNotification using the ATD3MeterRetireNotification Inbound Web Service.

**Sensus**

Component	Description
D6-DeviceEventMappingLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a Value for Sensus Device Event Mapping extendable lookup.  This component invokes the D6-DeviceEventMappingLookup Business Object using the ATD6DeviceEventMappingLookup Inbound Web Service.
D6-HeadendUOMLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a Value for Sensus UOM Code to Standard UOM Mapping extendable lookup.  This component invokes the D6-HeadendUOMLookup Business Object using the ATD6HeadendUOMLookup Inbound Web Service.
D6-InitiateMeterByMeterIdType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Sensus -Initiate Meter Read By Meter ID outbound communication type.  This component invokes the D6-InitiateMeterByMeterIdType Business Object using the ATD6InitiateMeterByMeterIdType Inbound Web Service.
D6-ReadingChgNotificationType	Used to perform actions such as ADD, READ, UPDATE and DELETE a Sensus - Reading Change Notification inbound communication type.  This component invokes the D6-ReadingChgNotificationType Business Object using the ATD6ReadingChgNotificationType Inbound Web Service.

Component	Description
D6-SensusMasterConfig	Used to perform actions such as ADD, READ, UPDATE and DELETE a Sensus Master Configuration.
D6-CDCodeReasonLookup	This component invokes the D6-SensusMasterConfig Business Object using the ATD6SensusMasterConfig Inbound Web Service.
D6-InitiateOutageDetectionType	Used to perform actions such as ADD, READ, UPDATE and DELETE of a Sensus Initiate Outage Detection Type record.
D6-OutageDetectEvtNotifType	This component invokes the D6-InitiateOutageDetectionType Business Object using the ATD6InitiateOutageDetectionType Inbound Web Service.
D6-UnsolicitedEventNotifType	Used to perform actions such as ADD, READ, UPDATE and DELETE of a Sensus Unsolicited Event Notification Type record.
D6-InitialLoadIMDInterval	This component invokes the D6-OutageDetectEvtNotifType Business Object using the ATD6OutageDetectEvtNotifType Inbound Web Service.
D6-UnsolicitedEventNotifType	Used to perform actions such as ADD, READ, UPDATE and DELETE of a Sensus Unsolicited Event Notification Type record.
D6-InitialLoadIMDInterval	This component invokes the D6-UnsolicitedEventNotifType Business Object using the ATD6UnsolicitedEventNotifType Inbound Web Service.
D6-InitialLoadIMDInterval	Used to ADD Initial Measurement Interval Data for Sensus adapter.
D6-InitialLoadIMDInterval	This component invokes the D6-InitialLoadIMDInterval Business Object using the ATD6InitialLoadIMDInterval Inbound Web Service.

Component	Description
D6-InitialLoadIMDScalar	Used to ADD Initial Measurement Scalar Data for Sensus adapter.
D6-SmartMeter	This component invokes the D6-InitialLoadIMDScalar Business Object using the ATD6InitialLoadIMDScalar Inbound Web Service.
D6-ConnectDisconStateChgNtfTyp	This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a Smart Meter for Sensus adapter.
D6-InitiateConnectDisconType	This component invokes the D6-SmartMeter Business Object using the ATD6SmartMeter Inbound Web Service.
D6-IntStsCodeToCondMapLookup	This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a Connect Disconnect State Change Notify Type for Sensus adapter.
D6-LoadActionCodeLookup	This component invokes the D6-ConnectDisconStateChgNtfTyp Business Object using the ATD6ConnectDisconStateChgNtfTyp Inbound Web Service.
D6-IntStsCodeToCondMapLookup	This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a Initiate Connect Disconnect Type for Sensus adapter.
D6-LoadActionCodeLookup	This component invokes the D6-InitiateConnectDisconType Business Object using the ATD6InitiateConnectDisconType Inbound Web Service.
D6-IntStsCodeToCondMapLookup	This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a IntStsCodeToCondMapLookup for Sensus adapter.
D6-LoadActionCodeLookup	This component invokes the D6-IntStsCodeToCondMapLookup Business Object using the ATD6IntStsCodeToCondMapLookup Inbound Web Service.
D6-LoadActionCodeLookup	This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a Load Action Code Lookup for Sensus adapter.
D6-LoadActionCodeLookup	This component invokes the D6-LoadActionCodeLookup Business Object using the ATD6LoadActionCodeLookup Inbound Web Service.

Component	Description
D6-MeterAddNotificationType	This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a Meter Add Notification Type for Sensus adapter.
D6-MeterRemoveNotifType	This component invokes the D6-MeterAddNotificationType Business Object using the ATD6MeterAddNotificationType Inbound Web Service.
D6-OutageEventTypeLookup	This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a Meter Remove Notify Type for Sensus adapter.
D6-OutageEventTypeLookup	This component invokes the D6-MeterRemoveNotifType Business Object using the ATD6MeterRemoveNotifType Inbound Web Service.
D6-SensusTimeUnits	This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a Outage Event Type Lookup for Sensus adapter.
D6-SensusTimeUnits	This component invokes the D6-SensusTimeUnits Business Object using the ATD6SensusTimeUnits Inbound Web Service.
D6-ServiceTypeMappingLookup	This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a Service Type Mapping Lookup for Sensus adapter.
D6-ServiceTypeMappingLookup	This component invokes the D6-ServiceTypeMappingLookup Business Object using the ATD6ServiceTypeMappingLookup Inbound Web Service.
D6-AddMeterToHarness	Used to perform the AddMeterToHarness action to Sensus test harness.
D6-AddMeterToHarness	This component invokes the D6-AddMeterToHarness Business Object using the ATD6AddMeterToHarness Inbound Web Service.

Component	Description
D6-RemoveMeter	<p>Used to perform the remove meter action from Sensus test harness.</p> <p>This component invokes the D6-RemoveMeter using the ATD6RemoveMeter Inbound Web Service.</p>

**SSN**

Component	Description
D7-AddMeterReadJobIntervalType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a SSN - Add Meter Read Job (Interval) Type outbound communication type.</p> <p>This component invokes the D7-AddMeterReadJobIntervalType Business Object using the ATD7AddMeterReadJobIntervalType Inbound Web Service.</p>
D7-AddMeterReadJobScalarType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a SSN - Add Meter Read Job (Scalar) Type outbound communication type.</p> <p>This component invokes the D7-AddMeterReadJobScalarType Business Object using the ATD7AddMeterReadJobScalarType Inbound Web Service.</p>
D7-MeterReadInterRespType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a SSN - Meter Read Response (Interval) Type inbound communication type.</p> <p>This component invokes the D7-MeterReadInterRespType Business Object using the ATD7MeterReadInterRespType Inbound Web Service.</p>
D7-MeterReadRespScalarType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a SSN - Meter Read Response (Scalar) Type inbound communication type.</p> <p>This component invokes the D7-MeterReadRespScalarType Business Object using the ATD7MeterReadRespScalarType Inbound Web Service.</p>

Component	Description
D7-DeviceEventMappingLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a Value for SSN Device Event Mapping extendable lookup.
	This component invokes the D7-DeviceEventMappingLookup Business Object using the ATD7DeviceEventMappingLookup Inbound Web Service.
D7-DataTimeZoneLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE a Value for SSN Data Time Zone extendable lookup.
	This component invokes the D7-DataTimeZoneLookup Business Object using the ATD7DataTimeZoneLookup Inbound Web Service.
D7-AddPingJobType	Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Add Ping Job Type record.
	This component invokes the D7-AddPingJobType Business Object using the ATD7AddPingJobType Inbound Web Service.
D7-DeviceStatusLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Device Status record.
	This component invokes the D7-DeviceStatusLookup Business Object using the ATD7DeviceStatusLookup Inbound Web Service.
D7-ExecutionStatusLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Execution Status record.
	This component invokes the D7-ExecutionStatusLookup Business Object using the ATD7ExecutionStatusLookup Inbound Web Service.
D7-GetStatusResponseType	Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Get Status Response Type record.
	This component invokes the D7-GetStatusResponseType Business Object using the ATD7GetStatusResponseType Inbound Web Service.

Component	Description
D7-GetStatusType	Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Get Status Type record.
D7-PingJobRespType	This component invokes the D7-GetStatusType Business Object using the ATD7GetStatusType Inbound Web Service.
D7-PriorityLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Ping Job Response Type record.
D7-PriorityLookup	This component invokes the D7-PingJobRespType Business Object using the ATD7PingJobRespType Inbound Web Service.
D7-ProvisioningActionLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Provisioning Action record.
D7-ProvisioningActionLookup	This component invokes the D7-ProvisioningActionLookup Business Object using the ATD7ProvisioningActionLookup Inbound Web Service.
D7-ProvisioningCommandStatus	Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Provisioning Command Status record.
D7-ProvisioningCommandStatus	This component invokes the D7-ProvisioningCommandStatus Business Object using the ATD7ProvisioningCommandStatus Inbound Web Service.
D7-ProvisioningDataType	Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Provisioning Data Type record.
D7-ProvisioningDataType	This component invokes the D7-ProvisioningDataType Business Object using the ATD7ProvisioningDataType Inbound Web Service.
D7-SSNVersionLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN SSN Version record.
D7-SSNVersionLookup	This component invokes the D7-SSNVersionLookup Business Object using the ATD7SSNVersionLookup Inbound Web Service.

Component	Description
D7-StatusFlagNameLookup	Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Status Flag Name record.
D7-InitialLoadIMDInterval	This component invokes the D7-StatusFlagNameLookup Business Object using the ATD7StatusFlagNameLookup Inbound Web Service.
D7-InitialLoadIMDScalar	Used to ADD Initial Measurement Interval Data for SSN Adapter.
D7-InitialLoadIMDScalar	This component invokes the D7-InitialLoadIMDScalar Business Object using the ATD7InitialLoadIMDScalar Inbound Web Service.
D7-SmartMeter	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Smart Meter for SSN adapter.
D7-ChannelStatusLookup	This component invokes the D7-SmartMeter Business Object using the ATD7SmartMeter Inbound Web Service.
D7-ConnectDisconRespType	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Channel Status Lookup for SSN adapter.
D7-ConnectDisconRespType	This component invokes the D7-ChannelStatusLookup Business Object using the ATD7ChannelStatusLookup Inbound Web Service.
D7-ConnectDisconnectType	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Connect Disconnect Response Type for SSN adapter.
D7-ConnectDisconnectType	This component invokes the D7-ConnectDisconnectType Business Object using the ATD7ConnectDisconRespType Inbound Web Service.
D7-ConnectDisconnectType	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Connect Disconnect Type for SSN adapter.
D7-ConnectDisconnectType	This component invokes the D7-ConnectDisconnectType Business Object using the ATD7ConnectDisconType Inbound Web Service.

Component	Description
D7-HeadendSQILookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Headend SQI Lookup for SSN adapter.
D7-HeadendTOULookup	This component invokes the D7-HeadendSQILookup Business Object using the ATD7HeadendSQILookup Inbound Web Service.
D7-HeadendUOMLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Headend UOM Lookup for SSN adapter.
D7-HeadendUOMLookup	This component invokes the D7-HeadendTOULookup Business Object using the ATD7HeadendTOULookup Inbound Web Service.
D7-IntStsCodeToCondMapLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a IntStsCodeToCondMapLookup for SSN adapter.
D7-IntervalStatusLookup	This component invokes the D7-IntStsCodeToCondMapLookup Business Object using the ATD7IntStsCodeToCondMapLookup Inbound Web Service.
D7-MeterConnectionStatusLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Interval Status Lookup for SSN adapter.
D7-MeterConnectionStatusLookup	This component invokes the D7-IntervalStatusLookup Business Object using the ATD7IntervalStatusLookup Inbound Web Service.
D7-MeterConnectionStatusLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Meter Connection Status Lookup for SSN adapter.
D7-MeterConnectionStatusLookup	This component invokes the D7-MeterConnectionStatusLookup Business Object using the ATD7MeterConnectionStatusLookup Inbound Web Service.

Component	Description
D7-MeterReadTypeLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Meter Read Type Lookup for SSN adapter.
	This component invokes the D7-MeterReadTypeLookup Business Object using the ATD7MeterReadTypeLookup Inbound Web Service.
D7-OldAdminStateNameLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE an Old Admin State Name Lookup for SSN adapter.
	This component invokes the D7-OldAdminStateNameLookup Business Object using the ATD7OldAdminStateNameLookup Inbound Web Service.
D7-ReadModeLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Read Mode Lookup for SSN adapter.
	This component invokes the D7-ReadModeLookup Business Object using the ATD7ReadModeLookup Inbound Web Service.
D7-RegisterReadSourceLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Register Read Source Lookup for SSN adapter.
	This component invokes the D7-RegisterReadSourceLookup Business Object using the ATD7RegisterReadSourceLookup Inbound Web Service.
D7-RegisterStatusLookup	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Register Status Lookup for SSN adapter.
	This component invokes the D7-RegisterStatusLookup Business Object using the ATD7RegisterStatusLookup Inbound Web Service.
D7-RepDeviceAtLocForDecommType	Used to perform actions such as ADD, READ, and UPDATE and DELETE a RepDeviceAtLocForDecommType for SSN adapter.
	This component invokes the D7-RepDeviceAtLocForDecommType Business Object using the ATD7RepDeviceAtLocForDecommType Inbound Web Service.

Component	Description
D7-ReplaceLocationType	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Replace Location Type for SSN adapter.
	This component invokes the D7-ReplaceLocationType Business Object using the ATD7ReplaceLocationType Inbound Web Service.
D7-VersionMasterConfig	Used to perform actions such as ADD, READ, and UPDATE and DELETE a Version Master Configuration for SSN adapter.
	This component invokes the D7-VersionMasterConfig Business Object using the ATD7VersionMasterConfig Inbound Web Service.
D7-AddMeterToHarness	Used to perform the AddMeterToHarness action to SSN test harness.
	This component invokes the D7-AddMeterToHarness using the ATD7AddMeterToHarness Inbound Web Service.
D7-SetCommissionRequest	Used to perform actions such as ADD, READ, UPDATE and DELETE a SetCommissionRequest Type record.
	This component invokes the D7-SetCommissionRequest using the ATD7SetCommissionRequest Inbound Web Service.
D7-SetVoltage	Used to perform action set voltage on a SSN device in test harness.
	This component invokes the D7- SetVoltage using the ATD7SetVoltage Inbound Web Service.
DG-SmartMeter	Used to perform actions such as ADD, READ, UPDATE and DELETE a SmartMeter record.
	This component invokes the DG- SmartMeter using the ATDGSmartMeter Inbound Web Service.

# **Chapter 3**

---

## **Sample Work Flows**

This chapter describes the sample flows in Oracle Utilities Meter Data Management and Oracle Utilities Smart Grid Gateway which illustrate common use cases for Oracle Utilities Testing Accelerator. It also explains the procedure to execute these sample flows.

The sample flows delivered as part of Oracle Utilities Testing Accelerator for Oracle Utilities Meter Data Management/Oracle Utilities Smart Grid Gateway demonstrate how flows can be created for Web services based testing.

These flows are designed to run using the demo data, thereby giving the user, the ability to deploy Oracle Utilities Testing Accelerator for Oracle Utilities Meter Data Management/Oracle Utilities Smart Grid Gateway and run the sanity flows immediately. The flows perform a part of the basic sanity testing required to certify that the Oracle Utilities Meter Data Management/Oracle Utilities Smart Grid Gateway environment has been setup appropriately.

The chapter includes the following sections:

- [Sample Flows in Oracle Utilities Meter Data Management](#)
- [Sample Flows in Oracle Utilities Smart Grid Gateway](#)
- [Running Sample Flows](#)

# Sample Flows in Oracle Utilities Meter Data Management

This section includes the following sample work flows:

- [Demo Interval Flow](#)
- [Demo Scalar Flow](#)

## Demo Interval Flow

The Demo Interval flow includes creation of a Smart Meter, adding device configuration and interval measuring components to the Smart Meter, loading Initial Measurement Data on the meter, and creating usage transactions.

The components used to create this flow are:

- D1-Person
- D1-SmartMeter
- D1-DeviceConfiguration
- D1-IntervalChannel
- D1-ServicePoint
- D1-SmartMeterInstallEvent
- D2-UsageSubscription
- D1-IMDSeeder
- D1-InitialLoadIMDInterval
- D2-UsgTranSeeder
- D2-UsageTransaction.

The flow creates Master Data in which a Smart Meter, Device Configuration on the meter, Interval Measuring Component on the meter, Service Point, and Install event are added. The flow is then tested for a negative scenario by giving invalid measurements through which we get the Validate Estimate Edit (VEE) exceptions. The reprocessing of these IMD seeder errors occurs by correcting the VEE exceptions. The flow is then tested for a positive scenario by giving valid measurements, so that VEE goes to a 'Finalized' state. Usage transaction with interval data is then created in the flow.

## Demo Scalar Flow

The Demo Scalar flow includes creation of a Manual Meter, adding device configuration and scalar measuring components to the Manual Meter, loading Initial Measurement Data on the meter, and creating usage transactions.

The components used to create this flow are:

- D1-Manual Meter
- D1-DeviceConfiguration
- D1-Register
- D1-ServicePoint
- D1-ManualMeterInstallEvent

- D1-Business
- D2-UsageSubscription
- D1-IMDSeeder
- D1-ManualIMDScalar
- D2-UsgTranSeeder
- D2-UsageTransaction

The flow creates master data in which a Manual Meter, Device Configuration on the meter, Scalar Measuring Component on the meter, Service Point, and Install event are added. The flow is then tested for a negative scenario by giving invalid measurements through which we get Validate Estimate Edit exceptions. The reprocessing of these IMD seeder errors occurs by correcting the VEE exceptions. The flow is then tested for a positive scenario by giving valid measurements so that VEE goes to a Finalized state. Usage transaction with scalar data is then created in the flow.

## Sample Flows in Oracle Utilities Smart Grid Gateway

This section includes the following sample work flows:

- [Itron Sample Flow](#)
- [Landis + Gyr Sample Flow](#)
- [Echelon Sample Flow](#)
- [Sensus Sample Flow](#)
- [SSN Sample Flow](#)
- [MDM-SGG\\_Cloud\\_Environment\\_Sanity](#)

### Itron Sample Flow

The Itron Sample flow includes creation of an Itron Smart Meter, adding device configuration and scalar measuring components to it, adding the Meter in Itron test harness, and performing various commands on the Meter.

The components used to create this flow are:

- D1-SmartMeter
- D8-AddMeterToHarness
- D8-SetCommissionRequest
- D8-SetVoltage
- D1-DeviceConfiguration
- D1-Register
- D1-ServicePoint
- D1-SmartMeterInstallEvent
- D1-OnDemandReadScalar
- D1-DeviceCommission

- D1-CommissionDevice
- D1-RemoteConnect
- F1-WaitTime
- D1-RemoteDisconnect
- D1-DeviceDecommission

The flow creates master data in which a Smart Meter, Device Configuration on the Meter, Scalar Measuring Component on the Meter, Service Point, and Install event are added. The Meter is also added in the test harness. On Demand Read command is also performed on the device by using the D1-OnDemandReadScalar component.

The Meter is then commissioned by using the Device Commission command and moved to connected state by using the Remote Connect command. It is then disconnected by Remote Disconnect command and finally decommissioned.

## Landis + Gyr Sample Flow

The Landis + Gyr Sample Flow includes creation of an LG Smart Meter, adding device configuration and scalar measuring components to it, adding the Meter in LG test harness, and performing various commands on the Meter.

The components used to create this flow are:

- D1-SmartMeter
- D1-DeviceConfiguration
- D1-Register
- D1-DeviceConfiguration
- D1-ServicePoint
- D1-SmartMeterInstallEvent
- D1-OnDemandReadScalar
- D1-DeviceCommission
- D1-GetComplEvtIdFromCommId
- D1-CommissionDevice
- D1-DeviceCommission
- D1-DeviceCommission
- D1-RemoteConnect
- D1-RemoteDisconnect
- D1-DeviceDecommission
- D1-SmartMeterInstallEvent
- D1-DeviceDeregistration
- F1-SendResultMail

The flow creates master data in which a Smart Meter, Device Configuration on the Meter, Scalar Measuring Component on the Meter, Service Point, and Install event are

added. The Meter is also added in the test harness. The On Demand Read command is also performed on the device by using the D1-OnDemandReadScalar component.

The Meter is then commissioned by using the Device Commission command and moved to connected state by using the Remote Connect command. It is then disconnected by Remote Disconnect command and finally decommissioned. Meter is then removed from the install event and DeviceDeregistration is performed.

## Echelon Sample Flow

The Echelon Sample Flow includes creation of an Echelon Smart Meter, adding device configuration and scalar measuring components to it, creating service point and install event, and performing various commands on the Meter.

The components used to create this flow are:

- D4-SmartMeter
- D1-DeviceConfiguration
- D1-Register
- D1-DeviceConfiguration
- D1-ServicePoint
- D1-SmartMeterInstallEvent
- D1-OnDemandReadScalar
- D1-DeviceCommission
- F1-WaitTime
- D4-GetCommunicationId
- D4-SetATMConfiguration
- D1-GetComplEvtIdFromCommId
- D1-CommissionDevice
- D1-DeviceCommission
- D1-DeviceCommission
- D1-RemoteConnect
- F1-WaitTime
- D1-RemoteDisconnect
- F1-WaitTime
- D1-DeviceDecommission
- F1-SendResultMail

The flow creates master data in which a Smart Meter, Device Configuration on the Meter, Scalar Measuring Component on the Meter, Service Point, and Install event are added. On Demand Read command is also performed on the device by using the D1-OnDemandReadScalar component.

The Meter is then commissioned by using the Device Commission command and moved to connected state by using the Remote Connect command. It is then disconnected by Remote Disconnect command and finally decommissioned.

## Sensus Sample Flow

The Sensus Sample Flow includes creation of an Sensus Smart Meter, adding device configuration and scalar measuring components to it, adding the Meter in Sensus test harness, and performing various commands on the Meter.

The components used to create this flow are:

- D6-SmartMeter
- D6-AddMeterToHarness
- D1-DeviceConfiguration
- D1-Register
- D1-DeviceConfiguration
- D1-ServicePoint
- D1-SmartMeterInstallEvent
- D1-OnDemandReadScalar
- D1-DeviceCommission
- F1-WaitTime
- D1-GetComplEvtIdFromCommId
- D1-CommissionDevice
- D1-RemoteConnect
- F1-WaitTime
- D1-RemoteDisconnect
- F1-WaitTime
- D1-DeviceDecommission
- F1-WaitTime
- D6-RemoveMeter
- D6-SmartMeter
- F1-SendResultMail

The flow creates master data in which a Smart Meter, Device Configuration on the Meter, Scalar Measuring Component on the Meter, Service Point, and Install event are added. The Meter is also added in the test harness. On Demand Read command is also performed on the device by using the D1-OnDemandReadScalar component.

The Meter is then commissioned by using the Device Commission command and moved to connected state by using the Remote Connect command. It is then disconnected by Remote Disconnect command and finally decommissioned.

## SSN Sample Flow

The SSN Sample Flow includes creation of an SSN Smart Meter, adding device configuration and scalar measuring components to it, adding the Meter in SSN test harness, and performing various commands on the Meter.

The components used to create this flow are:

- D7-SmartMeter
- D7-AddMeterToHarness
- D1-DeviceConfiguration
- D1-Register
- D1-DeviceConfiguration
- D1-ServicePoint
- D1-SmartMeterInstallEvent
- D1-OnDemandReadScalar
- D1-DeviceCommission
- F1-WaitTime
- D1-GetComplEvtIdFromCommId
- D1-CommissionDevice
- D1-RemoteConnect
- F1-WaitTime
- D1-RemoteDisconnect
- F1-WaitTime
- D1-DeviceDecommission
- F1-SendResultMail

The flow creates master data in which a Smart Meter, Device Configuration on the Meter, Scalar Measuring Component on the Meter, Service Point, and Install event are added. The Meter is also added in the test harness. On Demand Read command is also performed on the device by using the D1-OnDemandReadScalar component.

The Meter is then commissioned by using the Device Commission command and moved to connected state by using the Remote Connect command. It is then disconnected by Remote Disconnect command and finally decommissioned.

## MDM-SGG\_Cloud\_Environment\_Sanity

The MDM-SGG\_Cloud\_Environment\_Sanity flow is used to verify the On demand Read scalar for a device on a Cloud environment which is an initial install environment.

The components used to create this flow are:

- F1-TimeZone
- F1-InstallationOption
- F1-ImportAndDeployBundle

- F1-Country
- D8-VersionMasterConfig
- F1-XAISender
- F1-OutboundMessageType
- F1-ExternalSystem
- D1-HeadEndSystem
- D1-HowToProcessDeviceInfo
- D1-HowToCreateMCInformation
- D1-HowToCreateActivityOBComm
- D1-OnDemandReadScalarType
- D8-ReadScalarType
- D8-ReadResultType
- D1-ServiceType
- D1-TimeOfUse
- D1-Manufacturer
- D1-UnitOfMeasure
- D1-VEEGroup
- D1-RegisterTypePhysical
- D1-DeviceConfigurationType
- D1-SmartMeterType
- D1-ServicePointType
- D1-SpecificationLookUp
- D1-SmartMeter
- D8-AddMeterToHarness
- D1-DeviceConfiguration
- D1-Register
- D1-ServicePoint
- D1-SmartMeterInstallEvent
- D1-OnDemandReadScalar
- F1-WaitTime

The flow has three scenarios:

- **Pre\_Requisites:** Create time zone and update installation options with the time zone.
- **Gold\_Data:** Create the necessary admin data to process the On Demand Read Scalar command.

- **Sanity:** Create a Smart Meter, Device Configuration on the Meter, Measuring Component on the Meter, Service Point, Install event. The Meter is also added in the test harness. On Demand Read command is also performed on the device by using the D1-OnDemandReadScalar component.

## Running Sample Flows

This section describes the procedure to setup sample flows and run them.

- [Pre-requisites](#)
- [Setting Up Sample Flows](#)

### Pre-requisites

To run the sample flow, make sure the following pre-requisites are met:

- Oracle Utilities Meter Data Management v2.4.0.0.2/Oracle Utilities Smart Grid Gateway v2.4.0.0.2 is up and running with the demo data pack.
- OpenScript is installed in the local machine. See *Oracle Utilities Testing Accelerator Installation and Administration Guide* for the version details.
- Oracle Utilities Testing Accelerator is installed and repository/directory is setup in the local machine appropriately. See *Oracle Utilities Testing Accelerator Installation and Administration Guide* for more details.

### Setting Up Sample Flows

To setup a sample flow:

1. Login to the Oracle Utilities Meter Data Management/Oracle Utilities Smart Grid Gateway application.
2. Import the Inbound Web services into the Oracle Utilities Meter Data Management/ Oracle Utilities Smart Grid Gateway application where the scenarios need to be executed.

See the **Importing Inbound Web Services** section in *Oracle Utilities Testing Accelerator User's Guide* for steps to import the Inbound Web services.

3. Navigate to **Admin > B > Bundle Import > Add**.
4. Enter the **External Reference**, **Detailed Description**, and **Bundle Details** from the IWS Bundle Export Dump.
5. Click **Save**, and then click **Apply bundle**.
6. Launch OpenScript in the local machine and perform the following steps:
  - a. Navigate to **View > OpenScript Preferences**.
  - b. In the left tree, select **OpenScript**. In the sub tree, select **Playback > Error Recovery**.
  - c. Click **SetAll** and select **Report Error and Continue**.
  - d. Click **Apply** and click **Close**.

7. Configure the **configuration.properties** file.

- a. Provide the application URL for the parameter.

```
gStrApplicationURL = http\://<%serverName%>\:<%portNumber%>/
ouaf
```

- b. Provide the additional path required for Inbound Web service URL.

```
gStrApplicationXAIImagePath=<%webservices/
gStrApplicationURL%>/<%AppendThisToAbove gStrApplicationURL%>/
```

- c. Provide an environment name for display in the results email.

```
gStrEnvironmentName= <%testEnvironmentName%>
```

- d. Provide the application login user ID.

```
gStrApplicationUserName= <%UserName%>
```

- e. Provide the application login password.

```
gStrApplicationUserPassword= <%password%>
```

- f. Provide the SMTP email server and e-mail ID.

```
gStrSMTP_HOST_NAME=<%SMTP ServerName%>
gStrSMTP_PORT=<%PortNumber%>
gStrTO_EMAIL_RECIPIENTS=<%e-mail Id%>
```

- g. Provide the application database details.

```
gStrApplicationDBConnectionString =<%jdbc Connectionstring%>
eg: jdbc\:oracle\:thin\:@<%DBserverName%>\:<%port%>\:<%DBSID%>
gStrApplicationDBUsername=<%DBUserID%>
gStrApplicationDBPassword=<%DBPassword%>
```

- h. Provide the full directory path of Oracle Application Testing Suite repository directories in the local machine.

```
gStrOutputFilePath=<%LogFilePath%>
Example: C:\\OATSOUMWM_DEMO\\OUTSP\\Logs\\
gStrXSDFiles=<%XSD Folder path%>
Example: C:\\OATSOUMWM_DEMO\\OUTSP\\XSD\\
```

8. Copy all the .jar files provided in the installer into the **genericJars** folder in the Oracle Application Testing Suite repository directory.

9. For running MDM-SGG\_Cloud\_Environment\_Sanity, the URL to connect to test harness needs to be modified in the flow in F1-XAISenderComponent.

# **Appendix A**

---

## **Inbound Web Services**

The Oracle Utilities Meter Data Management/Oracle Utilities Smart Grid Gateway components are developed using Web services method, and these components require Inbound Web Services to be defined in the application.

For instructions to create, import, or search an Inbound Web Service, see the **Setting Up Inbound Web Services** appendix in *Oracle Utilities Testing Accelerator User's Guide*.

The Inbound Web Services provided to use with the delivered components and flows in the respective applications are as follows:

- [Oracle Utilities Meter Data Management](#)
- [Oracle Utilities Market Settlements Management](#)
- [Oracle Utilities Smart Grid Gateway](#)
- [CX REST API](#)

# Oracle Utilities Meter Data Management

- ATD1AttachmentCreation
- ATD1AutoReadRegisterType
- ATD1AvgDailyEstItemConsumption
- ATD1Business
- ATD1ContactType
- ATD1DeviceConfiguration
- ATD1DeviceConfigurationType
- ATD1DeviceEventSeeder
- ATD1DeviceWithDurationActType
- ATD1DuplicateIMDCheck
- ATD1DvcCommEquipment
- ATD1DvcCommEquipmentType
- ATD1ElectricityNetworkLocation
- ATD1EstimationIMDInterval
- ATD1EstimationIMDScalar
- ATD1ExceptionType
- ATD1ExternalApplication
- ATD1FactorNumber
- ATD1FactorProfile
- ATD1FactorVEEGroup
- ATD1FactorValueNumber
- ATD1FactorValueProfile
- ATD1FactorValueVEEGroup
- ATD1FieldActivity
- ATD1EnableService
- ATD1DisableService
- ATD1BackToBackService
- ATD1CutServiceForNonPayment
- ATD1ReconnectForPayment
- ATD1HeadEndSystem
- ATD1HeadendSQILookup
- ATD1HowToCreateMCInformation
- ATD1HowToProcessDeviceInfo
- ATD1IMDSeeder
- ATD1InitialLoadIMDInterval

- ATD1InitialLoadIMDScalar
- ATD1IntervalChannel
- ATD1IntervalChannelTypePhysical
- ATD1IntervalScratchpad
- ATD1Item
- ATD1ItemConfigurationType
- ATD1ItemInstallEvent
- ATD1ItemType
- ATD1ManualIMDInterval
- ATD1ManualIMDScalar
- ATD1ManualMeter
- ATD1ManualMeterInstallEvent
- ATD1ManualMeterType
- ATD1Manufacturer
- ATD1Market2
- ATD1MeasurementCycle
- ATD1MeasurementCycleRoute
- ATD1MeasurementCycleSchedule
- ATD1MeterInsightInvestigation
- ATD1MeterReadDownloadActType
- ATD1MtrInsightInvestigationType
- ATD1SPMonitorBusinessFlagType
- ATD1RevenueProtectionInsight
- ATD1PairedEventFirstDvcEvtType
- ATD1PairedEventLastDvcEvtType
- ATD1Person
- ATD1ReaderRemark
- ATD1ReaderRemarkType
- ATD1Register
- ATD1RegisterAutoRead
- ATD1.RegisterTypePhysical
- ATD1RemoteConnectType
- ATD1ServiceIssueMonitor
- ATD1ServiceIssueMonitorType
- ATD1ServicePoint
- ATD1ServicePointType

- ATD1ServiceQuantityIdentifier
- ATD1ServiceType
- ATD1SmartMeter
- ATD1SmartMeterInstallEvent
- ATD1SmartMeterType
- ATD1StandardDeviceEventType
- ATD1TimeOfUse
- ATD1TimeZoneTranslationLookup
- ATD1Transformer
- ATD1UTCorrectnPrcessrActvtyType
- ATD1UnitOfMeasure
- ATD1UsageGroup
- ATD1VEEEligibilityCriteria
- ATD1VEEGroup
- ATD1VEERuleExceptionHandler
- ATD1VEERuleGroupFactor
- ATD1VEERuleReferredVEEGroup
- ATD1VEERuleSuccessTermination
- ATDMElectricServicePoint
- ATD2ActivityTypeAggDimScanner
- ATD2AggregatorType
- ATD2ApplyMathInt
- ATD2DynamicOption
- ATD2DynamicOptionEvent
- ATD2DynamicOptionType
- ATD2EnsureIMDExistsForSibling
- ATD2FinalMeasurementValidation
- ATD2GetIntervalData
- ATD2GetItemCountsConsumption
- ATD2GetScalar
- ATD2GetTOUUsage
- ATD2GetSubtractiveInterval
- ATD2HowToCreateUSInformation
- ATD2IntervalAdjustmentFrmScalar
- ATD2IntervalAveragingEstimation
- ATD2IntervalInterpolationEst

- ATD2IntervalProfileEstimation
- ATD2IntervalReplacementRule
- ATD2IntervalSizeValidation
- ATD2IntervalSpikeCheck
- ATD2MasterMsrmtAggregatorType
- ATD2Math
- ATD2MsrmtQuantityAggScannerType
- ATD2NegativeConsumptionCheck
- ATD2RaiseMissingQuantityExcp
- ATD2RegisterMultiplierCheck
- ATD2SSMeterReadTaskType
- ATD2ScalarCalcFromInterval
- ATD2ScalarEstimation
- ATD2ScalarProfileEstimation
- ATD2ScalarReplacementRule
- ATD2SubIntAdjustmentVEE
- ATD2SubMeasurementAggType
- ATD2SumCheck
- ATD2TOUGroup
- ATD2TOUMap
- ATD2TOUMapTemplate
- ATD2TOUMapType
- ATD2UOMCheck
- ATD2UsageCalculationGroupLookup
- ATD2UsageSubscription
- ATD2UsageSubscriptionType
- ATD2UsageTransaction
- ATD2UsgTranSeeder
- ATD2VEERuleHighLowCheck
- ATD2ValAgainstTol
- ATD2VerifyUomTouSqlMCExistForUs
- ATD2ZeroConsumptionCheck
- ATD1GETDVCAPI
- ATGetSimdIdFromImd
- ATGetMCFrmDvcExtId
- ATGetProductKeyFromSync

- ATD1GetUsageFromExtID
- ATD2GetUSFromExtID
- ATGetDCFrmDvcExtId
- ATGetInstEvtFromDvcExId
- ATGetInstEvtFrmSPExtId
- ATD1RETMCEXT
- ATD1GetContactFromExtID
- ATD1GetSpFromExtID
- ATRETSYEXT
- ATD2DynCompValidation
- ATD1ChannelStatistics
- ATD1ChannelStatisticsType
- ATD1MeasuringCompTypLite
- ATD1IntervalChannelSubtractive
- ATD1IntrvlChanTypPhysSubtractiv
- ATD1SubtractveIntvalMeasurement
- ATD1SystemIMDSubtrInterval
- ATD1ManualIMDSubtrInterval
- ATD1EstimationIMDSubtrInterval
- ATD1InitialLoadIMDSubtrInterval
- ATD2MtrCommTrckngAggregator
- ATD2MtrCommTrckgDimScanner
- ATD2MDMMasterConfig
- ATD2CreateEstimationIMDRule
- ATD1RelMCREScalar
- ATD1EstimationSuppression
- ATD2MtrCommTrckngAggregatorType
- ATD1EstimationSuppressionType
- ATD1OngoingSyncRequestContact
- ATD1OngoingSyncRequestSP
- ATD1OngoingSyncRequestDevice
- ATD2OngoingSyncRequestUS
- ATD1OngoingSyncRequestDC
- ATD1CompositeSyncRequestDC
- ATD1OngoingSyncRequestMC
- ATD1OngoingSyncReqScalarMtrRead

- ATD1OngoingSyncRequestIE
- ATD2InitialSyncRequestDynOpt
- ATD2OngoingSyncRequestDynOpt
- ATD2InitialSyncRequestDynOptEvt
- ATD2OngoingSyncRequestDynOptEvt
- ATD2CCBContractOptionTypeLookup
- ATD1HowToTranslateExternalValue
- ATd1CCBContactTypeLookup
- ATD1CCBLifeSupSensitiveLdLookup
- ATD2CCBSATypeLookup
- ATD2CCBSAStatusLookup
- ATD1InitialSyncRequestDevice
- D1-InstallEvent
- D1-Item
- D1-Meter
- D1-ServicePoint
- ATD1MCWithCharacteristics

## Oracle Utilities Market Settlements Management

- ATD1CompleteMCSetBO
- ATD1CompleteMCSetBOInbound
- ATD1InboundMCSetSyncRequest
- ATD1AggregatorRoot
- ATD1ActivityStatsAggregator
- ATD1StatsAggregator
- ATD2ItemAggregatorPostalSvcType
- ATD1StandaloneComparisonInt
- ATD1StandaloneDataRequestMC
- ATD1StandaloneDataRequestMCType
- ATD1StandaloneInterval
- ATD1StandaloneIntrvlComprMCType
- ATD1StandaloneIntrvlMCType
- ATD1StandaloneMCDataRequest
- ATD1StandaloneMcDataReqCommType
- ATD1SynchronizationAddDC

- ATD1SynchronizationAddDevice
- ATD1TrancheAward
- ATD1USQuantityDataSource
- ATD1USQuantityType
- ATD1UsageSubscriptionQuantity
- ATD1UserMiscellaneousPhysicalBO
- ATD1VEEGroupMatrixMVF
- ATD2ArrayMath
- ATD2BatchSettlementTransaction
- ATD2CustomerQuantityCalculation
- ATD2DynamicOptionIntSetType
- ATD2SettAccountServiceType
- ATD2SettItemMarketParticipant
- ATD2SettlementBilledUsage
- ATD2SettlementItem
- ATD2SettlementItemType
- ATD2SettlementSubscription
- ATD2SettlementSubscriptionType
- ATD2SettlementTransaction
- ATD2UsageCalculationReqType
- ATD2UsageCalculationRequest
- ATD2UsageCalculationType
- ATD2UsgSubsMarketParticipant
- ATD2DynamicOptionIntervalEvent
- ATD2DynamicOptionIntervalSet
- ATD2ItemAggregatorType
- ATD2MarketAwardAllocation
- ATD2ProfileServiceQuantity
- ATD2SendSettlTranCntrctCommType
- ATD2SendSettleTranstnIdCommType
- ATD1AggIMDBasedProjectionType
- ATD1AggIMDBasedProjections
- ATD1AggregateAccount
- ATD1AggregationCompositeSet
- ATD1AggregationConfig
- ATD1AggregationFoundationSet

- ATD1AggregationGroup
- ATD1AggregationGroupRun
- ATD1AggregationIntervalType
- ATD1AggregatorComposite
- ATD1AggregatorCustomerQuantity
- ATD1AggregatorInterval
- ATD1AggregatorScalar
- ATD1AttributeDataSnapshotType
- ATD1AttributeGroup
- ATD1AttributeValues
- ATD1AutoReadRegisterType
- ATD1BadgedItemsDataSource
- ATD1InBoundAggGrpSyncReq
- ATD1InboundMCSetSyncRequest
- ATD1IntervalChannelTypePhysical
- ATD1MCComparisionPeriod
- ATD1MCWithCharacteristics
- ATD1MDMSSettlementAggrGrpSync
- ATD1MDMSSettlementDCSync
- ATD1MDMSSettlementDeviceSync
- ATD1MDMSSettlementIESync
- ATD1MDMSSettlementMCSync
- ATD1MDMSSettlementSPSync
- ATD1MVarFacProcessor
- ATD1Market2
- ATD1MarketContract
- ATD1MarketContractType
- ATD1MarketParticipant
- ATD1MarketProduct
- ATD1MarketProductSet
- ATD1MarketProductType
- ATD1MktContractType
- ATD1MsrmrtdatasnapshotScalar
- ATD1MulVarFacNum
- ATD1MulVarFacNumVal
- ATD1MulVarFacProfVal

- ATD1MulVarFacValVEEGroup
- ATD1CompleteMCSetBO
- ATD1CompleteMCSetBOInbound
- ATD1ConsExtractTypeInterval
- ATD1ConsExtractTypeItem
- ATD1ConsExtractTypeScalar
- ATD1DailyProcTimetable
- ATD1DataSourceBilledSerQuantity
- ATD1DataSourceMeasurements
- ATD1DataSourceMeasurementDirect
- ATD1DataSourceSPQuantities
- ATD1DataSourceUnbadgedItems
- ATD1DefinedDatesProcSchedule
- ATD1DimensionCombination
- ATD1Division
- ATD1PercentageAward
- ATD1ServicePointMktPtLITE
- ATD1ServicePointQuantity
- ATD1ServicePointQuantityType
- ATD1SettIntegrationMasterConfig
- ATD1SettUnitAttributeValues
- ATD2IntervalAveragingEstimation
- ATD2IntervalProxyDayEstimation
- ATD1SettlementBulkCalcGroup
- ATD1SettlementCalculationGroup
- ATD1SettlementDefaults
- ATD1SettlementItemQuantity
- ATD1SettlementItemQuantityType
- ATD1SettlementUnit
- ATD1FactorTemperatureProfile
- ATD1FixedProfileAward
- ATD1FormulaProductType
- ATD1HowToSendMCInformation
- ATD1DataSourceMeasurementDirect

# Oracle Utilities Smart Grid Gateway

- ATD1CommandSet
- ATD1DeviceDecommission
- ATD1OnDemandReadScalar
- ATD1RemoteConnect
- ATD1OnDemandReadInterval
- ATD1RemoteDisconnect
- ATD1DeviceCommission
- ATD1DeviceStatusCheck
- ATD1PayloadStatistics
- ATD1PayloadErrorNotif
- ATD1BulkRequestHeader
- ATD1BulkResponse
- ATD1MultiDeviceStatusCheck
- ATD1RemoteDisconnectType
- ATD1DeviceDecommissionType
- ATD1OnDemandReadScalarType
- ATD1OnDemandReadIntervalType
- ATD1DeviceStatusCheckType
- ATD1DeviceCommissionType
- ATD1PayloadNotifType
- ATD1BulkRequestHeaderType
- ATD1BulkResponseType
- ATD1MultiDeviceStatusCheckType
- ATD1CommissionDevice
- ATD1ConnectDevice
- ATD1DisconnectDevice
- ATD1DecommissionDevice
- ATD1CreateIMD
- ATD1StandardDeviceEvent
- ATD1DeviceEvtComResp
- ATD1DeviceEventComRespType
- ATD1HowToProcDvcEvtsInformation
- ATD1HowToSendActivityResponse
- ATD1HowToCreateActivityOBComm
- ATD1StdEventNameLookup

- ATD1DvcEventCategoryLookup
- ATD1DeviceEventMappingLookup
- ATD1SGGAdapterConfigSheet
- ATD1SGGMasterConfiguration
- ATD1OutboundMessage
- ATD1DeregisterDevice
- ATD1DeviceDeregistration
- ATD1DeviceDeregistrationType
- ATD3AddMeterToInventoryMultiSp
- ATD3AddMeterToInventoryMSType
- ATD3ConnectDisconStateChgNtfTyp
- ATD3DeviceEventMappingLookup
- ATD3HeadendUOMLookup
- ATD3InitMtReadByMtNumType
- ATD3InitialLoadIMDInterval
- ATD3InitialLoadIMDScalar
- ATD3InitiateConnectDisconType
- ATD3IntStsCodeToCondMapLookup
- ATD3LoadActionCodeLookup
- ATD3MeterAddNotificationMSType
- ATD3MtrRmvNotifMultiSpkType
- ATD3ReadingChgNotificationType
- ATD3ScheduleDemandResetRespTyp
- ATD3ScheduleDemandResetType
- ATD4AddMeterRequestType
- ATD4CommandFailureLookup
- ATD4CommandHistoryStatusLookup
- ATD4ConnectLoadNtfTyp
- ATD4ConnectLoadType
- ATD4CumuDemandStatusTypeLookup
- ATD4DecommMeterNotificatType
- ATD4DecommMeterRequestType
- ATD4DeviceAtmModeTypeLookup
- ATD4DeviceCommandLookup
- ATD4DeviceEventMappingLookup
- ATD4DeviceResultTypeLookup

- ATD4DeviceStatusLookup
- ATD4DeviceTypeLookup
- ATD4DisconnectLoadNtfTyp
- ATD4DisconnectLoadType
- ATD4DisconnectPriorityLookup
- ATD4EntityTypeLookup
- ATD4ExtServiceReturnCodeLookup
- ATD4GatewayTypeLookup
- ATD4HeadendUOMLookup
- ATD4InitialLoadIMDInterval
- ATD4InitialLoadIMDScalar
- ATD4IntStsCodeToCondMapLookup
- ATD4LoadVoltageStatusTypeLookup
- ATD4ReadBillingDataNtfType
- ATD4ReadBillingDataType
- ATD4ReadLoadProfileNtfType
- ATD4ReadLoadProfileType
- ATD4ReadLoadStatusNtfTyp
- ATD4ReadLoadStatusType
- ATD4RemoteReconnectStatusLookup
- ATD4RetrieveMeterIdentifierType
- ATD4RetrieveMeterInfoType
- ATD4SetATMConfNotificationType
- ATD4SetATMConfigurationType
- ATD4SmartMeter
- ATD4TaskPriorityLookup
- ATD4TimeZoneManagerLookup
- ATD6CDReasonCodeLookup
- ATD6ConnectDisconStateChgNtfTyp
- ATD6DeviceEventMappingLookup
- ATD6HeadendUOMLookup
- ATD6InitialLoadIMDInterval
- ATD6InitialLoadIMDScalar
- ATD6InitiateConnectDisconType
- ATD6InitiateMeterByMeterIdType
- ATD6InitiateOutageDetectionType

- ATD6IntStsCodeToCondMapLookup
- ATD6LoadActionCodeLookup
- ATD6MeterAddNotificationType
- ATD6MeterRemoveNotifType
- ATD6OutageDetectEvtNotifType
- ATD6OutageEventTypeLookup
- ATD6ReadingChgNotificationType
- ATD6SensusMasterConfig
- ATD6SensusTimeUnits
- ATD6ServiceTypeMappingLookup
- ATD6SmartMeter
- ATD6UnsolicitedEventNotifType
- ATD7AddMeterReadJobIntervalType
- ATD7AddMeterReadJobScalarType
- ATD7AddPingJobType
- ATD7ChannelStatusLookup
- ATD7ConnectDisconRespType
- ATD7ConnectDisconnectType
- ATD7DataTimeZoneLookup
- ATD7DeviceEventMappingLookup
- ATD7DeviceStatusLookup
- ATD7ExecutionStatusLookup
- ATD7GetStatusResponseType
- ATD7GetStatusType
- ATD7HeadendSQILookup
- ATD7HeadendTOULookup
- ATD7HeadendUOMLookup
- ATD7InitialLoadIMDInterval
- ATD7InitialLoadIMDScalar
- ATD7IntStsCodeToCondMapLookup
- ATD7IntervalStatusLookup
- ATD7MeterConnectionStatusLookup
- ATD7MeterReadInterRespType
- ATD7MeterReadRespScalarType
- ATD7MeterReadTypeLookup
- ATD7OldAdminStateNameLookup

- ATD7PingJobRespType
- ATD7PriorityLookup
- ATD7ProvisioningActionLookup
- ATD7ProvisioningCommandStatus
- ATD7ProvisioningDataType
- ATD7ReadModeLookup
- ATD7RegisterReadSourceLookup
- ATD7RegisterStatusLookup
- ATD7RepDeviceAtLocForDecommType
- ATD7ReplaceLocationType
- ATD7SSNVersionLookup
- ATD7SmartMeter
- ATD7StatusFlagNameLookup
- ATD7VersionMasterConfig
- ATD8AddMeterDefinitionsType
- ATD8AppGroupLookup
- ATD8DeregisterMeterType
- ATD8DetLoadSideVolBytMtrRsltTyp
- ATD8DetectLoadSideVoltageMtrTyp
- ATD8DeviceEventMappingLookup
- ATD8DisconnectMeterResultType
- ATD8DisconnectMeterType
- ATD8DisconnectSwitchStateLookup
- ATD8DvcStatusMappingLookup
- ATD8FailureReasonLookup
- ATD8HeadendUOMLookup
- ATD8InitialLoadIMDInterval
- ATD8InitialLoadIMDScalar
- ATD8IntStsCodeToCondMapLookup
- ATD8InterrogateByGroupRsltType
- ATD8InterrogateByGroupType
- ATD8ItronVersions
- ATD8JobStatusLookup
- ATD8PingByEndpointsMDRespType
- ATD8PingByEndpointsMultiDvcType
- ATD8PingByEndpointsResponseType

- ATD8PingByEndpointsType
- ATD8ReadDisconStBytMtrRsltType
- ATD8ReadDisconStateByMtrType
- ATD8ReadIntervalType
- ATD8ReadResultType
- ATD8ReadScalarType
- ATD8ReconnectMeterResultType
- ATD8ReconnectMeterType
- ATD8ResultLookup
- ATD8RptSelfReadOptionLookup
- ATD8ScheduleRead
- ATD8ScheduleReadType
- ATCOMPEVTID
- ATD4SETATMCONFIG
- ATDGSmartMeter

## CX REST API

- D1-InstallEvent
- D1-Item
- D1-Meter
- D1-ServicePoint
- D1-UsageSubscription
- D1-UsageTransaction