

**Oracle Functional Testing Advanced
Pack for Oracle Utilities**

**Reference Guide for Oracle Utilities Meter Data
Management/ Oracle Utilities Smart Grid
Gateway (v2.2.0)**

Release 5.0.1

E81067-01

November 2016

Oracle Functional Testing Advanced Pack for Oracle Utilities Reference Guide for Oracle Utilities Meter Data Management/ Oracle Utilities Smart Grid Gateway (v2.2.0), Release 5.0.1

E81067-01

Copyright © 2016 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, the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are “commercial computer software” pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. 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 Xeon 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, Opteron, the AMD logo, and the AMD Opteron 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 on 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. 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.

Contents

Preface	i
Audience	i
Related Documents	i
Conventions.....	ii
Abbreviations	ii
Chapter 1	
Component Reference	1-1
Overview	1-1
Oracle Utilities Meter Data Management Components	1-1
Oracle Utilities Smart Grid Gateway Components	1-27
Chapter 2	
Function Library Reference	2-1
OUSGGLIB1	2-1
Chapter 3	
Sample Work Flows	3-1
Sample Flows in Oracle Utilities Meter Data Management	3-1
Demo Interval Flow	3-1
Demo Scalar Flow.....	3-2
Sample Flows in Oracle Utilities Smart Grid Gateway.....	3-2
Itron Sample Flow.....	3-3
Landis + Gyr Sample Flow.....	3-3
Echelon Sample Flow.....	3-4
Sensus Sample Flow.....	3-5
SSN Sample Flow.....	3-6
MDM-SGG_Cloud_Environment_Sanity.....	3-7
Executing Sample Flows.....	3-8
Pre-requisites.....	3-8
Setting Up Sample Flows	3-8
Appendix A	
Inbound Web Services	A-1
List of Inbound Web Services	A-1

Preface

This guide describes the Oracle Utilities Meter Data Management (MDM) v2.2.0/ Oracle Utilities Smart Grid Gateway (SGG) v2.2.0 components and function libraries used to create those components in Oracle Functional Testing Advanced Pack for Oracle Utilities (OFTAPOU) v5.0.1. These components are used to build test flows in Oracle Flow Builder (OFB).

This preface includes the following sections:

- [Audience](#)
- [Related Documents](#)
- [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 Functional Testing Advanced Pack for Oracle Utilities (OFTAPOU) for Oracle Utilities Meter Data Management/ Oracle Utilities Smart Grid Gateway.

Related Documents

For more information, see the following documents:

- *Oracle Functional Testing Advanced Pack for Oracle Utilities Release Notes*
- *Oracle Functional Testing Advanced Pack for Oracle Utilities Installation and Administration Guide*
- *Oracle Functional Testing Advanced Pack for Oracle Utilities User's Guide*

See also:

- Oracle Utilities Meter Data Management Documentation Library
- Oracle Utilities Smart Grid Gateway Documentation Library

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	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:

- MDM - Oracle Utilities Meter Data Management
- SGG - Oracle Utilities Smart Grid Gateway
- OFTAPOU - Oracle Functional Testing Advanced Pack for Oracle Utilities
- OFB - Oracle Flow Builder

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 Flow Builder 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 Functional Testing Advanced Pack for Oracle Utilities for Oracle Utilities Meter Data Management/ Oracle Utilities Smart Grid Gateway is a test starter pack built on top of Oracle Functional Testing Advanced Pack for Oracle Utilities that generates test automation scripts using Oracle Flow Builder.

Oracle Functional Testing Advanced Pack for Oracle Utilities 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 Flow Builder 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.

Note: See the *Oracle Functional Testing Advanced Pack for Oracle Utilities User's Guide* for information about creating components and flows.

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](#)
- [VEE](#)

Admin

Component	Description
D1-MeterReadDownloadActType	<p>Used to create a MeterReadDownloadActType Activity Type.</p> <p>This component invokes the D1-MeterReadDownloadActType Business Object using the ATD1MeterReadDownloadActType Inbound Web Service.</p>
D1-PairedEventLastDvcEvtType	<p>Used to create a PairedEventLastDvcEvtType Device Event Type.</p> <p>This component invokes the D1-PairedEventLastDvcEvtType Business Object using the ATD1PairedEventLastDvcEvtType Inbound Web Service.</p>
D1-StandardDeviceEventType	<p>Used to create a StandardDeviceEventType Device Event Type.</p> <p>This component invokes the D1-StandardDeviceEventType Business Object using the ATD1StandardDeviceEventType Inbound Web Service.</p>
D1-UTCorrectnPrcessrActvtyType	<p>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.</p> <p>The component invokes the D1-UTCorrectnPrcessrActvtyType Business Object using the ATD1UTCorrectnPrcessrActvtyType Inbound Web Service.</p>

Component	Description
D1-RemoteConnectType	<p>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.</p> <p>The component invokes the D1-RemoteConnectType Business Object using the ATD1RemoteConnectType Inbound Web Service.</p>
D1-PairedEventFirstDvcEvtType	<p>Describes the Device Event Type - Paired Event (First).</p> <p>This component invokes the D1-PairedEventFirstDvcEvtType Business Object using the ATD1PairedEventFirstDvcEvtType Inbound Web Service.</p>
D1-DeviceWithDurationActType	<p>Describes the Device Activity with Duration Type.</p> <p>This component invokes the D1-DeviceWithDurationActType Business Object using the ATD1DeviceWithDurationActType Inbound Web Service.</p>
D2-SubMeasurementAggType	<p>Describes the Sub Measurement Aggregator Type.</p> <p>This component invokes the D2-SubMeasurementAggType Business Object using the ATD2SubMeasurementAggType Inbound Web Service.</p>
D2-MasterMsmtAggregatorType	<p>Describes the Master Measurement Aggregator Type.</p> <p>This component invokes the D2-MasterMsmtAggregatorType Business Object using the ATD2MasterMsmtAggregatorType Inbound Web Service.</p>
D2-ActivityTypeAggDimScanner	<p>Describes the Aggregator Dimension Scanner Activity Type.</p> <p>This component invokes the D2-ActivityTypeAggDimScanner Business Object using the ATD2ActivityTypeAggDimScanner Inbound Web Service.</p>
D2-AggregatorType	<p>Used to create an AggregatorType Measuring Component Type.</p> <p>This component invokes the D2-AggregatorType Business Object using the ATD2AggregatorType Inbound Web Service.</p>

Component	Description
D1-IntervalChannelTypePhysical	<p>Used to create a IntervalChannelTypePhysical.</p> <p>This component invokes the D1-IntervalChannelTypePhysical Business Object using the ATD1IntervalChannelTypePhysical Inbound Web Service.</p>
D1-MeasurementCycleSchedule	<p>Used to create a MeasurementCycleSchedule.</p> <p>This component invokes the D1-MeasurementCycleSchedule Business Object using the ATD1MeasurementCycleSchedule Inbound Web Service.</p>
D1-ReaderRemarkType	<p>Used to create a ReaderRemarkType.</p> <p>This component invokes the D1-ReaderRemarkType Business Object using the ATD1ReaderRemarkType Inbound Web Service.</p>
D1-ServiceIssueMonitorType	<p>Used to create a ServiceIssueMonitorType.</p> <p>This component invokes the D1-ServiceIssueMonitorType Business Object using the ATD1ServiceIssueMonitorType Inbound Web Service.</p>
D2-MsrmtQuantityAggScannerType	<p>Used to create a MsrmtQuantityAggScannerType.</p> <p>This component invokes the D2-MsrmtQuantityAggScannerType Business Object using the ATD2MsrmtQuantityAggScannerType Inbound Web Service.</p>
D2-TOUGroup	<p>Used to create a TOUGroup.</p> <p>This component invokes the D2-TOUGroup Business Object using the ATD2TOUGroup Inbound Web Service.</p>
D2-VEERuleHighLowCheck	<p>Used to create a VEERuleHighLowCheck.</p> <p>This component invokes the D2-VEERuleHighLowCheck Business Object using the ATD2VEERuleHighLowCheck Inbound Web Service.</p>
D1-HowToCreateMCInformation	<p>Used to create a HowToCreateMCInformation.</p> <p>This component invokes the D1-HowToCreateMCInformation Business Object using the ATD1HowToCreateMCInformation Inbound Web Service.</p>

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-VerifyUomTouSqiMCExistForUs	Used to create a VerifyUomTouSqiMCExistForUs. This component invokes the D2-VerifyUomTouSqiMCExistForUs Business Object using the ATD2VerifyUomTouSqiMCExistForUs 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-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.

Component	Description
D2-UsageCalculationGroupLookup	<p>Used to create a UsageCalculationGroupLookup.</p> <p>This component invokes the D2-UsageCalculationGroupLookup Business Object using the ATD2UsageCalculationGroupLookup Inbound Web Service.</p>
D2-MDMMasterConfig	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a MDMMasterConfig.</p> <p>This component invokes the D2-MDMMasterConfig Business Object using the ATD2MDMMasterConfig Inbound Web Service.</p>
D2-MDMMasterConfig	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a MDMMasterConfig.</p> <p>This component invokes the D2-MDMMasterConfig Business Object using the ATD2MDMMasterConfig Inbound Web Service.</p>
D2-MtrCommTrckngAggregatorType	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a MtrCommTrckngAggregatorType.</p> <p>This component invokes the D2-MtrCommTrckngAggregatorType Business Object using the ATD2MtrCommTrckngAggregatorType Inbound Web Service.</p>
D1-EstimationSuppressionType	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a EstimationSuppressionType.</p> <p>This component invokes the D1-EstimationSuppressionType Business Object using the ATD1EstimationSuppressionType Inbound Web Service.</p>
D2-InactiveMeasurementCheck	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a InactiveMeasurementCheck VEE Rule.</p> <p>This component invokes the D1-InactiveMeasurementCheck Business Object using the ATD2InactiveMeasurementCheck Inbound Web Service.</p>
D1-ChannelStatisticsType	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a ChannelStatisticsType.</p> <p>This component invokes the D1-ChannelStatisticsType Business Object using the ATD1ChannelStatisticsType Inbound Web Service.</p>

Component	Description
D1-ChannelStatistics	Used to perform actions such as ADD, READ, UPDATE, and DELETE a ChannelStatistics. This component invokes the D1- ChannelStatistics Business Object using the ATD1ChannelStatistics Inbound Web Service.
D1-FacilityLite	Used to perform actions such as ADD, READ, UPDATE, and DELETE a FacilityLite. This component invokes the D1- FacilityLite Business Object using the ATD1FacilityLite Inbound Web Service.
D1-SpecificationLookup	Used to perform actions such as ADD, READ, UPDATE, and DELETE a SpecificationLookup. This component invokes the D1- SpecificationLookup Business Object using the ATD1SpecificationLookup Inbound Web Service.
D1-MeasuringCompTypLite	Used to perform actions such as ADD, READ, UPDATE, and DELETE a MeasuringCompTypLite. This component invokes the D1- MeasuringCompTypLite Business Object using the ATD1MeasuringCompTypLite Inbound Web Service.
D1-GetDvcFrmIdenTypFlag	Used to retrieve Device ID By Identifier and Type Flag using the ATD1 GetDvcFrmIdenTypFlag Inbound Web Service.
D1-GetSimdIdFromImd	Used to retrieve Simd ID By IMD ID using the ATD1GetSimdIdFromImd Inbound Web Service.
D1-GetMCFrmDvcExtId	Used to retrieve Measuring Component ID from Device External ID using the ATD1GetMCFrmDvcExtId Inbound Web Service.
D1-GetProductKeyFromSync	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-InitialLoadIMDSubtrInterval	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a InitialLoadIMDSubtrInterval.</p> <p>This component invokes the D1-InitialLoadIMDSubtrInterval Business Object using the ATD1InitialLoadIMDSubtrInterval Inbound Web Service.</p>
D1-EstimationIMDSubtrInterval	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a EstimationIMDSubtrInterval.</p> <p>This component invokes the D1-EstimationIMDSubtrInterval Business Object using the ATD1EstimationIMDSubtrInterval Inbound Web Service.</p>
D1-ManualIMDSubtrInterval	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a ManualIMDSubtrInterval.</p> <p>This component invokes the D1-ManualIMDSubtrInterval Business Object using the ATD1ManualIMDSubtrInterval Inbound Web Service.</p>
D1-SystemIMDSubtrInterval	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a SystemIMDSubtrInterval.</p> <p>This component invokes the D1-SystemIMDSubtrInterval Business Object using the ATD1SystemIMDSubtrInterval Inbound Web Service.</p>
D1-SubtractiveIntvalMeasurement	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a SubtractiveIntvalMeasurement.</p> <p>This component invokes the D1-SubtractiveIntvalMeasurement Business Object using the ATD1SystemIMDSubtrInterval Inbound Web Service.</p>
D1-IntrvlChanTypPhysSubtractiv	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a IntrvlChanTypPhysSubtractiv.</p> <p>This component invokes the D1-IntrvlChanTypPhysSubtractiv Business Object using the ATD1IntrvlChanTypPhysSubtractiv Inbound Web Service.</p>

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

Component	Description
D2-UsageTran_ValUsgPeriod	<p>Used to perform actions such as READ on D2-UsageTransaction</p> <p>This component invokes the D2-UsageTransaction Business Object using the ATD2UsageTransaction Inbound Web Service.</p>
D2-InitialSyncRequestDynOpt	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a InitialSyncRequestDynOpt.</p> <p>This component invokes the D2-InitialSyncRequestDynOpt Business Object using the ATD2InitialSyncRequestDynOpt Inbound Web Service.</p>
D2-OngoingSyncRequestDynOpt	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a OngoingSyncRequestDynOpt.</p> <p>This component invokes the D2-OngoingSyncRequestDynOpt Business Object using the ATD2OngoingSyncRequestDynOpt Inbound Web Service.</p>
D2-InitialSyncRequestDynOptEvt	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a InitialSyncRequestDynOptEvt.</p> <p>This component invokes the D2-InitialSyncRequestDynOptEvt Business Object using the ATD2InitialSyncRequestDynOptEvt Inbound Web Service.</p>
D2-OngoingSyncRequestDynOptEvt	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a OngoingSyncRequestDynOptEvt.</p> <p>This component invokes the D2-OngoingSyncRequestDynOptEvt Business Object using the ATD2OngoingSyncRequestDynOptEvt Inbound Web Service.</p>
D2-CCBContractOptionTypeLookup	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a CCBContractOptionTypeLookup.</p> <p>This component invokes the D2-CCBContractOptionTypeLookup Business Object using the ATD2CCBContractOptionTypeLookup Inbound Web Service.</p>

Component	Description
D1-HowToTranslateExternalValue	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a HowToTranslateExternalValue.</p> <p>This component invokes the D1-HowToTranslateExternalValue Business Object using the ATD1HowToTranslateExternalValue Inbound Web Service.</p>
D1-CCBContactTypeLookup	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a CCBContactTypeLookup.</p> <p>This component invokes the D1-CCBContactTypeLookup Business Object using the ATd1CCBContactTypeLookup Inbound Web Service.</p>
D1-CCBLifeSupSensitiveLdLookup	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a CCBLifeSupSensitiveLdLookup.</p> <p>This component invokes the D1-CCBLifeSupSensitiveLdLookup Business Object using the ATD1CCBLifeSupSensitiveLdLookup Inbound Web Service.</p>
D2-CCBSATypeLookup	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a CCBSATypeLookup.</p> <p>This component invokes the D2-CCBSATypeLookup Business Object using the ATD2CCBSATypeLookup Inbound Web Service.</p>
D2-CCBSAStatusLookup	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a CCBSAStatusLookup.</p> <p>This component invokes the D2-CCBSAStatusLookup Business Object using the ATD2CCBSAStatusLookup Inbound Web Service.</p>
D1-InitialSyncRequestDevice	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a InitialSyncRequestDevice.</p> <p>This component invokes the D2-InitialSyncRequestDevice Business Object using the ATD1InitialSyncRequestDevice Inbound Web Service.</p>

Bill Determinants

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

Component	Description
D2-GetTOUUsage	<p>Used to create a GetTOUUsage Usage Rule.</p> <p>This component invokes the D2-GetTOUUsage Business Object using the ATD2GetTOUUsage Inbound Web Service.</p>
D2-DynamicOptionType	<p>Describes the creation of Dynamic Option Type.</p> <p>This component invokes the D2-DynamicOptionType Business Object using the ATD2DynamicOptionType Inbound Web Service.</p>
D2-GetIntervalData	<p>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.</p> <p>This component invokes the D2-GetIntervalData Business Object using the ATD2GetIntervalData Inbound Web Service.</p>
D2-Math	<p>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.</p> <p>This component invokes the D2-Math Business Object using the ATD2Math Inbound Web Service.</p>
D2-UsageSubscriptionType	<p>Allows to create a usage subscription type for creating a usage subscription.</p> <p>This component invokes the D2-UsageSubscriptionType Business Object using the ATD2UsageSubscriptionType Inbound Web Service.</p>
D2-TOUMapType	<p>Describes Time Of Use Map Type.</p> <p>This component invokes the D2-TOUMapType Business Object using the ATD2TOUMapType Inbound Web Service.</p>
D2-HowToCreateUSInformation	<p>Describes how to create the Usage Subscription related information.</p> <p>This component invokes the D2-HowToCreateUSInformation Business Object using the ATD2HowToCreateUSInformation Inbound Web Service.</p>

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

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-DeviceConfiguration	<p>Used to add Device Configuration to a device.</p> <p>This component invokes the D1-DeviceConfiguration Business Object using the ATD1DeviceConfigurationSVC Inbound Web Service.</p>
D1-IntervalChannel	<p>Used to add interval measuring components to a device configuration.</p> <p>This component invokes the D1-IntervalChannel Business Object using the ATD1IntervalChannel Inbound Web Service.</p>
D1-Register	<p>Used to add scalar measuring components to a device configuration.</p> <p>This component invokes the D1-Register Business Object using the ATD1Register Inbound Web Service.</p>

Component	Description
D1-ServicePoint	<p>Used to create a Service Point.</p> <p>This component invokes the D1- ServicePoint Business Object using the ATD1ServicePoint Inbound Web Service.</p>
D1-SmartMeterInstallEvent	<p>Used to create an installation event for a Smart Meter.</p> <p>This component invokes the D1- SmartMeterInstallEvent Business Object using the ATD1SmartMeterInstallEvent Inbound Web Service.</p>
D1-ManualMeterInstallEvent	<p>Used to create an installation event for a Manual Meter.</p> <p>This component invokes the D1- ManualMeterInstallEvent Business Object using the ATD1ManualMeterInstallEvent Inbound Web Service.</p>
D1-Transformer	<p>Used to create a Facility (Transformer) for a service type.</p> <p>This component invokes the D1-Transformer Business Object using the ATD1Transformer Inbound Web Service.</p>
D1-ElectricityNetworkLocation	<p>Used to create an Electricity Network Location.</p> <p>This component invokes the D1- ElectricityNetworkLocation Business Object using the ATD1ElectricityNetworkLocation Inbound Web Service.</p>
D1-IntervalScratchpad	<p>Used to create Interval Scratchpad MC.</p> <p>This component invokes the D1-IntervalScratchpad Business Object using the ATD1IntervalScratchpad Inbound Web Service.</p>
D1-Person	<p>Used to create a Person.</p> <p>This component invokes the D1-Person Business Object using the ATD1Person Inbound Web Service.</p>
D1-Business	<p>Used to create a Business.</p> <p>This component invokes the D1-Business Business Object using the ATD1Business Inbound Web Service.</p>

Component	Description
DM_ElectricServicePoint	<p>Used to create a CM Service Point (demo data).</p> <p>This component invokes the DM_ElectricServicePoint Business Object using the ATDMElectricServicePoint Inbound Web Service.</p>
D1-RegisterAutoRead	<p>Used to add register auto read measuring components to a device configuration.</p> <p>This component invokes the D1-RegisterAutoRead Business Object using the ATD1RegisterAutoRead Inbound Web Service.</p>
D1-Item	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE an Item.</p> <p>This component invokes the D1-Item Business Object using the ATD1Item Inbound Web Service.</p>
D1-ItemInstallEvent	<p>Used to create an installation event for a Smart Meter.</p> <p>This component invokes the D1-ItemInstallEvent Business Object using the ATD1ItemInstallEvent Inbound Web Service.</p>
D1-AutoReadRegisterType	<p>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.</p> <p>This component invokes the D1-AutoReadRegisterType Business Object using the ATD1AutoReadRegisterType Inbound Web Service.</p>
D1-DeviceConfigurationType	<p>Used to create a device configuration type used to create device configuration for a device.</p> <p>This component invokes the D1-DeviceConfigurationType Business Object using the ATD1DeviceConfigurationType Inbound Web Service.</p>
D1-ExceptionType	<p>Used to set up VEE Exception Types.</p> <p>This component invokes the D1-ExceptionType Business Object using the ATD1ExsceptionType Inbound Web Service.</p>
D1-ExternalApplication	<p>Used to create a Service Provider.</p> <p>This component invokes the D1-ExternalApplication Business Object using the ATD1ExternalApplication Inbound Web Service.</p>

Component	Description
D1-HeadEndSystem	<p>Used to create a Head End system service provider.</p> <p>This component invokes the D1-HeadEndSystem Business Object using the ATD1HeadEndSystem Inbound Web Service.</p>
D1-ItemConfigurationType	<p>Creates a configuration types for Item Types that can represent badged items.</p> <p>This component invokes the D1-ItemConfigurationType Business Object using the ATD1ItemConfigurationType Inbound Web Service.</p>
D1-ItemType	<p>Creates an item type applicable to badged and unbadged non-meter devices.</p> <p>This component invokes the D1-ItemType Business Object using the ATD1ItemType Inbound Web Service.</p>
D1-ManualMeterType	<p>Creates an item type applicable to badged and unbadged non-meter devices.</p> <p>This component invokes the D1-ManualMeterType Business Object using the ATD1ManualMeterType Inbound Web Service.</p>
D1-ServiceType	<p>Used to create a Service Type.</p> <p>This component invokes the D1-ServiceType Business Object using the ATD1ServiceType Inbound Web Service.</p>
D1-SmartMeterType	<p>Used to create a Device of Smart Meter Type.</p> <p>This component invokes the D1-SmartMeterType Business Object using the ATD1SmartMeterType Inbound Web Service.</p>
D1-TimeOfUse	<p>Used to create a TOU.</p> <p>This component invokes the D1-TimeOfUse Business Object using the ATD1TimeOfUse Inbound Web Service.</p>
D1-UnitOfMeasure	<p>Used to create a Unit of Measure.</p> <p>This component invokes the D1-UnitOfMeasure Business Object using the ATD1 UnitOfMeasure Inbound Web Service.</p>

Component	Description
D1-Manufacturer	<p>Describes the structure and business rules applicable to manufacturers.</p> <p>This component invokes the D1-Manufacturer Business Object using the ATD1 Manufacturer Inbound Web Service.</p>
D1-MeasurementCycle	<p>Describes the Measurement Cycle creation.</p> <p>This component invokes the D1-MeasurementCycle Business Object using the ATD1MeasurementCycle Inbound Web Service.</p>
D1-RegisterTypePhysical	<p>Used to create Register Type component.</p> <p>This component invokes the D1-RegisterTypePhysical Business Object using the ATD1RegisterTypePhysical Inbound Web Service.</p>
D1-ServicePointType	<p>A generic component used to create Service point type.</p> <p>This component invokes the D1-ServicePointType Business Object using the ATD1ServicePointType Inbound Web Service.</p>
D1-MeasurementCycleRoute	<p>Used to create Measurement Cycle Route.</p> <p>This component invokes the D1-MeasurementCycleRoute Business Object using the ATD1MeasurementCycleRoute Inbound Web Service.</p>
D1-HowToProcessDeviceInfo	<p>Describes how to process the Device Related Information.</p> <p>This component invokes the D1-HowToProcessDeviceInfo Business Object using the ATD1HowToProcessDeviceInfo Inbound Web Service.</p>
D1-HeadendSQLLookup	<p>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.</p> <p>This component invokes the D1-HeadendSQLLookup Business Object using the ATD1HeadendSQLLookup Inbound Web Service.</p>

Component	Description
D1-ServiceQuantityIdentifier	<p>Describes the structure and business rules applicable to Service Quantity Identifier definitions.</p> <p>This component invokes the D1-ServiceQuantityIdentifier Business Object using the ATD1ServiceQuantityIdentifier Inbound Web Service.</p>
D1-Market2	<p>Valid Service Providers are Market Participants.</p> <p>This component invokes the D1-Market2 Business Object using the ATD1Market2 Inbound Web Service.</p>
D1-ContactType	<p>Describes Contact Type.</p> <p>This component invokes the D1-ContactType Business Object using the ATD1ContactType Inbound Web Service.</p>
D2-DynCompValidation	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE a DynCompValidation.</p> <p>This component invokes the D2-DynCompValidation Business Object using the ATD2DynCompValidation Inbound Web Service.</p>

Initial Measurement Data

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

Component	Description
D1-InitialLoadIMDInterval	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE of Initial Load IMD Interval records.</p> <p>This component invokes the D1-InitialLoadIMDInterval Business Object using the ATD1InitialLoadIMDInterval Inbound Web Service.</p>
D1-InitialLoadIMDScalar	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE of Initial Load IMD Scalar records.</p> <p>This component invokes the D1-InitialLoadIMDScalar Business Object using the ATD1InitialLoadIMDScalar Inbound Web Service.</p>
D1-EstimationIMDInterval	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE of Estimation IMD Interval records.</p> <p>This component invokes the D1-EstimationIMDInterval Business Object using the ATD1EstimationIMDInterval Inbound Web Service.</p>
D1-EstimationIMDScalar	<p>Used to perform actions such as ADD, READ, UPDATE, and DELETE of Estimation IMD Scalar records.</p> <p>This component invokes the D1-EstimationIMDScalar Business Object using the ATD1EstimationIMDScalar Inbound Web Service.</p>

VEE

Component	Description
D1-VEEGroup	<p>Used to create a VEE Group.</p> <p>This component invokes the D1-VEEGroup Business Object using the ATD1VEEGroup Inbound Web Service.</p>
D2-NegativeConsumptionCheck	<p>Used to create a Negative-Consumption Check VEE Rule.</p> <p>This component invokes the D2-NegativeConsumptionCheck Business Object using the ATD2NegativeConsumptionCheck Inbound Web Service.</p>

Component	Description
D2-RegisterMultiplierCheck	<p>Used to create a Multiplier Check VEE Rule.</p> <p>This component invokes the D2-RegisterMultiplierCheck Business Object using the ATD2RegisterMultiplierCheck Inbound Web Service.</p>
D2-ScalarProfileEstimation	<p>Used to create a ScalarProfileEstimation VEE Rule.</p> <p>This component invokes the D2-ScalarProfileEstimation Business Object using the ATD2ScalarProfileEstimation Inbound Web Service.</p>
D2-SumCheck	<p>Used to create a SumCheck VEE Rule.</p> <p>This component invokes the D2-SumCheck Business Object using the ATD2SumCheck Inbound Web Service.</p>
D2-ScalarCalcFromInterval	<p>Describes Scalar Calculation from Interval.</p> <p>This component invokes the D2-ScalarCalcFromInterval Business Object using the ATD2ScalarCalcFromInterval Inbound Web Service.</p>
D2-ScalarEstimation	<p>Describes the Describes Scalar Estimation VEE Rule.</p> <p>This component invokes the D2-ScalarEstimation Business Object using the ATD2ScalarEstimation Inbound Web Service.</p>
D2-UOMCheck	<p>Used to create UOM Check VEE rule.</p> <p>This component invokes the D2-UOMCheck Business Object using the ATD2UOMCheck Inbound Web Service.</p>
D2-ZeroConsumptionCheck	<p>Used to create Zero Consumption Check VEE rule.</p> <p>This component invokes the D2-ZeroConsumptionCheck Business Object using the ATD2ZeroConsumptionCheck Inbound Web Service.</p>
D1-VEERuleExceptionHandler	<p>Used to create a VEERuleExceptionHandler VEE Rule.</p> <p>This component invokes the D1-VEERuleExceptionHandler Business Object using the ATD1VEERuleExceptionHandler Inbound Web Service.</p>

Component	Description
D2-EnsureIMDExistsForSibling	<p>Used to create a EnsureIMDExistsForSibling VEE rule.</p> <p>This component invokes the D2-EnsureIMDExistsForSibling Business Object using the ATD2EnsureIMDExistsForSibling Inbound Web Service.</p>
D2-IntervalAdjustmentFrmScalar	<p>Used to create a IntervalAdjustmentFrmScalar VEE rule.</p> <p>This component invokes the D2-IntervalAdjustmentFrmScalar Business Object using the ATD2IntervalAdjustmentFrmScalar Inbound Web Service.</p>
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>

Component	Description
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> <p>It invokes the D1-DuplicateIMDCheck Business Object using the ATD1DuplicateIMDCheck Inbound Web Service.</p>
D1-VEERuleGroupFactor	<p>Describes the VEE Rule group factor.</p> <p>This component invokes the D1-VEERuleGroupFactor Business Object using the ATD1VEERuleGroupFactor Inbound Web Service.</p>
D2-FinalMeasurementValidation	<p>Describes the Final Measurement Validation.</p> <p>This component invokes the D2-FinalMeasurementValidation Business Object using the ATD2FinalMeasurementValidation Inbound Web Service.</p>
D2-IntervalAveragingEstimation	<p>Describes Interval Averaging Estimation.</p> <p>This component invokes the D2-IntervalAveragingEstimation Business Object using the ATD2IntervalAveragingEstimation Inbound Web Service.</p>
D2-IntervalProfileEstimation	<p>Describes Interval Profile Estimation.</p> <p>This component invokes the D2-IntervalProfileEstimation Business Object using the ATD2IntervalProfileEstimation Inbound Web Service.</p>
D2-IntervalSizeValidation	<p>Describes Interval Size Validation.</p> <p>This component invokes the D2-IntervalSizeValidation Business Object using the ATD2IntervalSizeValidation Inbound Web Service.</p>
D2-RaiseMissingQuantityExcp	<p>Describes Raise Missing Quantity Exception.</p> <p>This component invokes the D2-RaiseMissingQuantityExcp Business Object using the ATD2RaiseMissingQuantityExcp Inbound Web Service.</p>

Component	Description
D1-VEERuleReferredVEEGroup	<p>Calls the VEE processor to execute the rules for the VEE group configured on the rule.</p> <p>This component invokes the D1-VEERuleReferredVEEGroup Business Object using the ATD1VEERuleReferredVEEGroup Inbound Web Service.</p>
D2-SSMeterReadTaskType	<p>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.</p> <p>This component invokes the D2-SSMeterReadTaskType Business Object using the ATD2SSMeterReadTaskType Inbound Web Service.</p>
D2-ProlongedEstimationCheck	<p>Describes ProlongedEstimationCheck.</p> <p>This component invokes the D2-ProlongedEstimationCheck Business Object using the ATD2 ProlongedEstimationCheck Inbound Web Service.</p>

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-DeviceDecommission	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Decommission record.</p> <p>This component invokes the D1-DeviceDecommission Business Object using the ATD1DeviceDecommission Inbound Web Service.</p>
D1-OnDemandReadScalar	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE an On Demand Read Scalar record.</p> <p>This component invokes the D1-OnDemandReadScalar Business Object using the ATD1OnDemandReadScalar Inbound Web Service.</p>
D1-RemoteConnect	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Remote Connect record.</p> <p>This component invokes the D1-RemoteConnect Business Object using the ATD1RemoteConnect Inbound Web Service.</p>
D1-OnDemandReadInterval	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a On Demand Read Interval record.</p> <p>This component invokes the D1-OnDemandReadInterval Business Object using the ATD1OnDemandReadInterval Inbound Web Service.</p>
D1-RemoteDisconnect	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Remote Disconnect record.</p> <p>This component invokes the D1-RemoteDisconnect Business Object using the ATD1RemoteDisconnect Inbound Web Service.</p>
D1-DeviceCommission	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Commission record.</p> <p>This component invokes the D1-DeviceCommission Business Object using the ATD1DeviceCommission Inbound Web Service.</p>

Component	Description
D1-DeviceStatusCheck	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Status Check record.</p> <p>This component invokes the D1-DeviceStatusCheck Business Object using the ATD1DeviceStatusCheck Inbound Web Service.</p>
D1-PayloadStatistics	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Payload Statistics record.</p> <p>This component invokes the D1-PayloadStatistics Business Object using the ATD1PayloadStatistics Inbound Web Service.</p>
D1-PayloadErrorNotif	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Payload Error Notification record.</p> <p>This component invokes the D1-PayloadErrorNotif Business Object using the ATD1PayloadErrorNotif Inbound Web Service.</p>
D1-BulkRequestHeader	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Bulk Request Header record.</p> <p>This component invokes the D1-BulkRequestHeader Business Object using the ATD1BulkRequestHeader Inbound Web Service.</p>
D1-BulkResponse	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Bulk Response record.</p> <p>This component invokes the D1-BulkResponse Business Object using the ATD1BulkResponse Inbound Web Service.</p>
D1-MultiDeviceStatusCheck	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Multi Device Status Check record.</p> <p>This component invokes the D1-MultiDeviceStatusCheck Business Object using the ATD1MultiDeviceStatusCheck Inbound Web Service.</p>
D1-RemoteDisconnectType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Remote Disconnect Type record.</p> <p>This component invokes the D1-RemoteDisconnectType Business Object using the ATD1RemoteDisconnectType Inbound Web Service.</p>

Component	Description
D1-DeviceDecommissionType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Decommission Type record.</p> <p>This component invokes the D1-DeviceDecommissionType Business Object using the ATD1DeviceDecommissionType Inbound Web Service.</p>
D1-OnDemandReadScalarType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a On Demand Read Scalar Type record.</p> <p>This component invokes the D1-OnDemandReadScalarType Business Object using the ATD1OnDemandReadScalarType Inbound Web Service.</p>
D1-OnDemandReadIntervalType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a On Demand Read Interval Type record.</p> <p>This component invokes the D1-OnDemandReadIntervalType Business Object using the ATD1OnDemandReadIntervalType Inbound Web Service.</p>
D1-DeviceStatusCheckType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Status Check Type record.</p> <p>This component invokes the D1-DeviceStatusCheckType Business Object using the ATD1DeviceStatusCheckType Inbound Web Service.</p>
D1-DeviceCommissionType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Commission Type record.</p> <p>This component invokes the D1-DeviceCommissionType Business Object using the ATD1DeviceCommissionType Inbound Web Service.</p>
D1-PayloadNotifType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Payload Notification Type record.</p> <p>This component invokes the D1-PayloadNotifType Business Object using the ATD1PayloadNotifType Inbound Web Service.</p>

Component	Description
D1-BulkRequestHeaderType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Bulk Request Header Type record.</p> <p>This component invokes the D1-BulkRequestHeaderType Business Object using the ATD1BulkRequestHeaderType Inbound Web Service.</p>
D1-BulkResponseType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Bulk Response Type record.</p> <p>This component invokes the D1-BulkResponseType Business Object using the ATD1BulkResponseType Inbound Web Service.</p>
D1-MultiDeviceStatusCheckType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Multi Device Status Check Type record.</p> <p>This component invokes the D1-MultiDeviceStatusCheckType Business Object using the ATD1MultiDeviceStatusCheckType Inbound Web Service.</p>
D1-CommissionDevice	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Commission Device record.</p> <p>This component invokes the D1-CommissionDevice Business Object using the ATD1CommissionDevice Inbound Web Service.</p>
D1-ConnectDevice	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Connect Device record.</p> <p>This component invokes the D1-ConnectDevice Business Object using the ATD1ConnectDevice Inbound Web Service.</p>
D1-DisconnectDevice	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Disconnect Device record.</p> <p>This component invokes the D1-DisconnectDevice Business Object using the ATD1DisconnectDevice Inbound Web Service.</p>
D1-DecommissionDevice	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Decommission Device record.</p> <p>This component invokes the D1-DecommissionDevice Business Object using the ATD1DecommissionDevice Inbound Web Service.</p>

Component	Description
D1-CreateIMD	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Create IMD record.</p> <p>This component invokes the D1-CreateIMD Business Object using the ATD1CreateIMD Inbound Web Service.</p>
D1-StandardDeviceEvent	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Standard Device Event record.</p> <p>This component invokes the D1-StandardDeviceEvent Business Object using the ATD1StandardDeviceEvent Inbound Web Service.</p>
D1-DeviceEvtComResp	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a DeviceEvtComResp record.</p> <p>This component invokes the D1-DeviceEvtComResp Business Object using the ATD1DeviceEvtComResp Inbound Web Service.</p>
D1-DeviceEventComRespType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a DeviceEventComRespType record.</p> <p>This component invokes the D1-DeviceEventComRespType Business Object using the ATD1DeviceEventComRespType Inbound Web Service.</p>
D1-HowToProcDvcEvtsInformation	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a HowToProcDvcEvtsInformation record.</p> <p>This component invokes the D1-HowToProcDvcEvtsInformation Business Object using the ATD1HowToProcDvcEvtsInformation Inbound Web Service.</p>
D1-HowToSendActivityResponse	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a HowToSendActivityResponse record.</p> <p>This component invokes the D1-HowToSendActivityResponse Business Object using the ATD1HowToSendActivityResponse Inbound Web Service.</p>

Component	Description
D1-HowToCreateActivityOBComm	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a HowToCreateActivityOBComm record.</p> <p>This component invokes the D1-HowToCreateActivityOBComm Business Object using the ATD1HowToCreateActivityOBComm Inbound Web Service.</p>
D1-StdEventNameLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Standard Event Name Lookup record.</p> <p>This component invokes the D1-StdEventNameLookup Business Object using the ATD1StdEventNameLookup Inbound Web Service.</p>
D1-DvcEventCategoryLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Event Category Lookup record.</p> <p>This component invokes the D1-DvcEventCategoryLookup Business Object using the ATD1DvcEventCategoryLookup Inbound Web Service.</p>
D1-DeviceEventMappingLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Event Mapping Lookup record.</p> <p>This component invokes the D1-DeviceEventMappingLookup Business Object using the ATD1DeviceEventMappingLookup Inbound Web Service.</p>
D1-SGGAdapterConfigSheet	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a SGG Adapter Config Sheet record.</p> <p>This component invokes the D1-SGGAdapterConfigSheet Business Object using the ATD1SGGAdapterConfigSheet Inbound Web Service.</p>
D1-SGGMasterConfiguration	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a SGG Master Configuration record.</p> <p>This component invokes the D1-SGGMasterConfiguration Business Object using the ATD1SGGMasterConfiguration Inbound Web Service.</p>

Component	Description
D1-OutboundMessage	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE an Outbound Message record.</p> <p>This component invokes the D1-OutboundMessage Business Object using the ATD1OutboundMessage Inbound Web Service.</p>
D1-GetComplEvtIdFromCommId	<p>Used to get Completion event from the SQL set in the AT-D1COMMDEV zone.</p> <p>This component invokes the D1-CommissionDevice Business Object using the ATCOMPEVTID Inbound Web Service.</p> <p>BS Used: AT-COMPEVTID</p>
D1-DeviceDeregistrationType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Deregistration Type.</p> <p>This component invokes the D1-DeviceDeregistrationType Business Object using the ATD1DeviceDeregistrationType Inbound Web Service.</p>
D1-DeviceDeregistration	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE Device Deregistration</p> <p>This component invokes the D1-DeviceDeregistration Business Object using the ATD1DeviceDeregistration Inbound Web Service.</p>
D1-DeregisterDevice	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Deregister Device.</p> <p>This component invokes the D1- DeregisterDevice Business Object using the ATD1DeregisterDevice Inbound Web Service.</p>

Echelon

Component	Description
D4-ReadBillingDataNtfType	<p>Used to ADD, UPDATE, READ, and DELETE Read Billing Data Notification Type business object for Echelon (D4) Adapter.</p> <p>This component invokes the D4-ReadBillingDataNtfType Business Object using the ATD4ReadBillingDataNtfType Inbound Web Service.</p>

Component	Description
D4-ReadBillingDataType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Read Billing Data outbound communication type.</p> <p>This component invokes the D4-ReadBillingDataType Business Object using the ATD4ReadBillingDataType Inbound Web Service.</p>
D4-ReadLoadProfileNtfType	<p>Used to ADD, UPDATE, READ, and DELETE Read Load Profile Notification Type business object for Echelon (D4) Adapter.</p> <p>This component invokes the D4-ReadLoadProfileNtfType Business Object using the ATD4ReadLoadProfileNtfType Inbound Web Service.</p>
D4-ReadLoadProfileType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Read Load Profile outbound communication type.</p> <p>This component invokes the D4-ReadLoadProfileType Business Object using the ATD4ReadLoadProfileType Inbound Web Service.</p>
D4-CommandFailureLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon Command Failure Lookup record.</p> <p>This component invokes the D4-CommandFailureLookup Business Object using the ATD4CommandFailureLookup Inbound Web Service.</p>
D4-CommandHistoryStatusLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon Command History Status Lookup record.</p> <p>This component invokes the D4-CommandHistoryStatusLookup Business Object using the ATD4CommandHistoryStatusLookup Inbound Web Service.</p>
D4-CumuDemandStatusTypeLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon cumulative demand status type record.</p> <p>This component invokes the D4-CumuDemandStatusTypeLookup Business Object using the ATD4CumuDemandStatusTypeLookup Inbound Web Service.</p>

Component	Description
D4-DeviceAtmModeTypeLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon Device Atm Mode type record.</p> <p>This component invokes the D4-DeviceAtmModeTypeLookup Business Object using the ATD4DeviceAtmModeTypeLookup Inbound Web Service.</p>
D4-DeviceCommandLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon Device Command record.</p> <p>This component invokes the D4-DeviceCommandLookup Business Object using the ATD4DeviceCommandLookup Inbound Web Service.</p>
D4-DeviceEventMappingLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon Device Event Mapping Lookup record.</p> <p>This component invokes the D4-DeviceEventMappingLookup Business Object using the ATD4DeviceEventMappingLookup Inbound Web Service.</p>
D4-DeviceResultTypeLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon Device Result Type record.</p> <p>This component invokes the D4-DeviceResultTypeLookup Business Object using the ATD4DeviceResultTypeLookup Inbound Web Service.</p>
D4-DeviceStatusLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon Device Status record.</p> <p>This component invokes the D4-DeviceStatusLookup Business Object using the ATD4DeviceStatusLookup Inbound Web Service.</p>
D4-HeadendUOMLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an Echelon Headend UOM Lookup record.</p> <p>This component invokes the D4-HeadendUOMLookup Business Object using the ATD4HeadendUOMLookup Inbound Web Service.</p>

Component	Description
D4-InitialLoadIMDInterval	<p>Used to add Initial Measurement Interval Data for Echelon Adapter.</p> <p>This component invokes the D4-InitialLoadIMDInterval Business Object using the ATD4InitialLoadIMDInterval Inbound Web Service.</p>
D4-InitialLoadIMDScalar	<p>Used to ADD Initial Measurement Scalar Data for Echelon Adapter.</p> <p>This component invokes the D4-InitialLoadIMDScalar Business Object using the ATD4InitialLoadIMDScalar Inbound Web Service.</p>
D4-SmartMeter	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Smart Meter for Echelon adapter.</p> <p>This component invokes the D4-SmartMeter Business Object using the ATD4SmartMeter Inbound Web Service.</p>
D4-AddMeterRequestType	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE an Add Meter Request Type for Echelon adapter.</p> <p>This component invokes the D4-AddMeterRequestType Business Object using the ATD4AddMeterRequestType Inbound Web Service.</p>
D4-ConnectLoadNtfTyp	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Connect Load Notification Type for Echelon adapter.</p> <p>This component invokes the D4-ConnectLoadNtfTyp Business Object using the ATD4ConnectLoadNtfTyp Inbound Web Service.</p>
D4-ConnectLoadType	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Connect Load Type for Echelon adapter.</p> <p>This component invokes the D4-ConnectLoadType Business Object using the ATD4ConnectLoadType Inbound Web Service.</p>
D4-DecommMeterNotificatType	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Decommission Meter Notification Type for Echelon adapter.</p> <p>This component invokes the D4-DecommMeterNotificatType Business Object using the ATD4DecommMeterNotificatType Inbound Web Service.</p>

Component	Description
D4-DecommMeterRequestType	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Decommission Meter Request Type for Echelon adapter.</p> <p>This component invokes the D4-DecommMeterRequestType Business Object using the ATD4DecommMeterRequestType Inbound Web Service.</p>
D4-DeviceTypeLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Device Type Lookup for Echelon adapter.</p> <p>This component invokes the D4-DeviceTypeLookup Business Object using the ATD4DeviceTypeLookup Inbound Web Service.</p>
D4-DisconnectLoadNtfTyp	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Disconnect Load Notification Type for Echelon adapter.</p> <p>This component invokes the D4-DisconnectLoadNtfTyp Business Object using the ATD4DisconnectLoadNtfTyp Inbound Web Service.</p>
D4-DisconnectLoadType	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Disconnect Load Type for Echelon adapter.</p> <p>This component invokes the D4-DisconnectLoadType Business Object using the ATD4DisconnectLoadType Inbound Web Service.</p>
D4-DisconnectPriorityLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Disconnect Priority Lookup for Echelon adapter.</p> <p>This component invokes the D4-DisconnectPriorityLookup Business Object using the ATD4DisconnectPriorityLookup Inbound Web Service.</p>
D4-EntityTypeLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Entity Type Lookup for Echelon adapter.</p> <p>This component invokes the D4-EntityTypeLookup Business Object using the ATD4EntityTypeLookup Inbound Web Service.</p>

Component	Description
D4-ExtServiceReturnCodeLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a ExtService Return Code Lookup for Echelon adapter.</p> <p>This component invokes the D4-ExtServiceReturnCodeLookup Business Object using the ATD4ExtServiceReturnCodeLookup Inbound Web Service.</p>
D4-GatewayTypeLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Gateway Type Lookup for Echelon adapter.</p> <p>This component invokes the D4-GatewayTypeLookup Business Object using the ATD4GatewayTypeLookup Inbound Web Service.</p>
D4-IntStsCodeToCondMapLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a IntStsCodeToCondMapLookup for Echelon adapter.</p> <p>This component invokes the D4-IntStsCodeToCondMapLookup Business Object using the ATD4IntStsCodeToCondMapLookup Inbound Web Service.</p>
D4-LoadVoltageStatusTypeLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Load Voltage Status Type Lookup for Echelon adapter.</p> <p>This component invokes the D4-LoadVoltageStatusTypeLookup Business Object using the ATD4LoadVoltageStatusTypeLookup Inbound Web Service.</p>
D4-ReadLoadStatusNtfTyp	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Read Load Status Notification Type for Echelon adapter.</p> <p>This component invokes the D4-ReadLoadStatusNtfTyp Business Object using the ATD4ReadLoadStatusNtfTyp Inbound Web Service.</p>
D4-ReadLoadStatusType	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Read Load Status Type for Echelon adapter.</p> <p>This component invokes the D4-ReadLoadStatusType Business Object using the ATD4ReadLoadStatusType Inbound Web Service.</p>

Component	Description
D4-RemoteReconnectStatusLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Remote Reconnect Status Lookup for Echelon adapter.</p> <p>This component invokes the D4-RemoteReconnectStatusLookup Business Object using the ATD4RemoteReconnectStatusLookup Inbound Web Service.</p>
D4-RetrieveMeterIdentifierType	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Retrieve Meter Identifier Type for Echelon adapter.</p> <p>This component invokes the D4-RetrieveMeterIdentifierType Business Object using the ATD4RetrieveMeterIdentifierType Inbound Web Service.</p>
D4-RetrieveMeterInfoType	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Retrieve Meter Information Type for Echelon adapter.</p> <p>This component invokes the D4-RetrieveMeterInfoType Business Object using the ATD4RetrieveMeterInfoType Inbound Web Service.</p>
D4-SetATMConfNotificationType	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Set ATM Configuration Notification Type for Echelon adapter.</p> <p>This component invokes the D4-SetATMConfNotificationType Business Object using the ATD4SetATMConfNotificationType Inbound Web Service.</p>
D4-SetATMConfigurationType	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Set ATM Configuration Type for Echelon adapter.</p> <p>This component invokes the D4-SetATMConfigurationType Business Object using the ATD4SetATMConfigurationType Inbound Web Service.</p>
D4-TaskPriorityLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Task Priority Lookup for Echelon adapter.</p> <p>This component invokes the D4-TaskPriorityLookup Business Object using the ATD4TaskPriorityLookup Inbound Web Service.</p>

Component	Description
D4-TimeZoneManagerLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Time Zone Manager Lookup Echelon adapter.</p> <p>This component invokes the D4-TimeZoneManagerLookup Business Object using the ATD4TimeZoneManagerLookup Inbound Web Service.</p>
D4-GetCommunicationId	<p>Used to get a Completion Event from the SQL set in the AT-D4SATMCON zone.</p> <p>This component invokes the D4-SetATMConfiguration Business Object using the ATD4SETATMCONFIG Inbound Web Service.</p> <p>BS Used: AT-D4SETATMCONFIG</p>

Itron Openway

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

Component	Description
D8-HeadendUOMLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Value for Itron UOM Code to Standard UOM Mapping extendable Lookup.</p> <p>This component invokes the D8-HeadendUOMLookup Business Object using the ATD8HeadendUOMLookup Inbound Web Service.</p>
D8-ItronVersions	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Value for Itron - Versions Lookup extendable Lookup.</p> <p>This component invokes the D8-ItronVersions Business Object using the ATD8ItronVersions Inbound Web Service.</p>
D8-JobStatusLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an Itron OpenWay Job Status record.</p> <p>This component invokes the D8-JobStatusLookup Business Object using the ATD8JobStatusLookup Inbound Web Service.</p>
D8-PingByEndpointsMDRespType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an Itron OpenWay Ping By Endpoints MD Response Type record.</p> <p>This component invokes the D8-PingByEndpointsMDRespType Business Object using the ATD8PingByEndpointsMDRespType Inbound Web Service.</p>
D8-PingByEndpointsResponseType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an Itron OpenWay Ping By Endpoints Response Type record.</p> <p>This component invokes the D8-PingByEndpointsResponseType Business Object using the ATD8PingByEndpointsResponseType Inbound Web Service.</p>
D8-PingByEndpointsMultiDvcType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an Itron OpenWay Ping By Endpoints Multi Device Type record.</p> <p>This component invokes the D8-PingByEndpointsMultiDvcType Business Object using the ATD8PingByEndpointsMultiDvcType Inbound Web Service.</p>

Component	Description
D8-PingByEndpointsType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an Itron OpenWay Ping By Endpoints Type record.</p> <p>This component invokes the D8-PingByEndpointsType Business Object using the ATD8PingByEndpointsType Inbound Web Service.</p>
D8-InitialLoadIMDInterval	<p>Used to ADD Initial Measurement Interval Data for Itron OpenWay Adapter.</p> <p>This component invokes the D8-InitialLoadIMDInterval Business Object using the ATD8InitialLoadIMDInterval Inbound Web Service.</p>
D8-InitialLoadIMDScalar	<p>Used to ADD Initial Measurement Scalar Data for Itron OpenWay Adapter.</p> <p>This component invokes the D8-InitialLoadIMDScalar Business Object using the ATD8InitialLoadIMDScalar Inbound Web Service.</p>
D8-AddMeterDefinitionsType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE an Add Meter Definitions Type for Itron.</p> <p>This component invokes the D8-AddMeterDefinitionsType Business Object using the ATD8AddMeterDefinitionsType Inbound Web Service.</p>
D8-AppGroupLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE an App Group Lookup for Itron.</p> <p>This component invokes the D8-AppGroupLookup Business Object using the ATD8AppGroupLookup Inbound Web Service.</p>
D8-DeregisterMeterType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE an Deregister Meter Type for Itron.</p> <p>This component invokes the D8-DeregisterMeterType Business Object using the ATD8DeregisterMeterType Inbound Web Service.</p>
D8-DetLoadSideVolBytMtrRsltTyp	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE an Detect Load Side Voltage By tMeter Result Type for Itron.</p> <p>This component invokes the D8-DetLoadSideVolBytMtrRsltTyp Business Object using the ATD8DetLoadSideVolBytMtrRsltTyp Inbound Web Service.</p>

Component	Description
D8-DetectLoadSideVoltageMtrTyp	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Detect Load Side Voltage Meter Type for Itron.</p> <p>This component invokes the D8-DetectLoadSideVoltageMtrTyp Business Object using the ATD8DetectLoadSideVoltageMtrTyp Inbound Web Service.</p>
D8-DisconnectMeterResultType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Disconnect Meter Result Type for Itron.</p> <p>This component invokes the D8-DisconnectMeterResultType Business Object using the ATD8DisconnectMeterResultType Inbound Web Service.</p>
D8-DisconnectMeterType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Disconnect Meter Type for Itron.</p> <p>This component invokes the D8-DisconnectMeterType Business Object using the ATD8DisconnectMeterType Inbound Web Service.</p>
D8-DisconnectSwitchStateLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Disconnect Switch State Lookup for Itron.</p> <p>This component invokes the D8-DisconnectSwitchStateLookup Business Object using the ATD8DisconnectSwitchStateLookup Inbound Web Service.</p>
D8-DvcStatusMappingLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Status Mapping Lookup for Itron.</p> <p>This component invokes the D8-DvcStatusMappingLookup Business Object using the ATD8DvcStatusMappingLookup Inbound Web Service.</p>
D8-FailureReasonLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Failure Reason Lookup for Itron.</p> <p>This component invokes the D8-FailureReasonLookup Business Object using the ATD8FailureReasonLookup Inbound Web Service.</p>

Component	Description
D8-IntStsCodeToCondMapLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a IntStsCodeToCondMapLookup for Itron.</p> <p>This component invokes the D8-IntStsCodeToCondMapLookup Business Object using the ATD8IntStsCodeToCondMapLookup Inbound Web Service.</p>
D8-InterrogateByGroupRsltType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Interrogate By Group Result Type for Itron.</p> <p>This component invokes the D8-InterrogateByGroupRsltType Business Object using the ATD8InterrogateByGroupRsltType Inbound Web Service.</p>
D8-InterrogateByGroupType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Interrogate By Group Type for Itron.</p> <p>This component invokes the D8-InterrogateByGroupType Business Object using the ATD8InterrogateByGroupType Inbound Web Service.</p>
D8-ReadDisconStBytMtrRsltType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Read Disconnect State By Meter Result Type for Itron.</p> <p>This component invokes the D8-ReadDisconStBytMtrRsltType Business Object using the ATD8ReadDisconStBytMtrRsltType Inbound Web Service.</p>
D8-ReadDisconStateByMtrType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Read Disconnect State By Meter Type for Itron.</p> <p>This component invokes the D8-ReadDisconStBytMtrType Business Object using the ATD8ReadDisconStBytMtrType Inbound Web Service.</p>
D8-ReconnectMeterResultType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Reconnect Meter Result Type for Itron.</p> <p>This component invokes the D8-ReconnectMeterResultType Business Object using the ATD8ReconnectMeterResultType Inbound Web Service.</p>

Component	Description
D8-ReconnectMeterType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Reconnect Meter Type for Itron.</p> <p>This component invokes the D8-ReconnectMeterType Business Object using the ATD8ReconnectMeterType Inbound Web Service.</p>
D8-ResultLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Result Lookup for Itron.</p> <p>This component invokes the D8-ResultLookup Business Object using the ATD8ResultLookup Inbound Web Service.</p>
D8-ScheduleRead	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Schedule Read for Itron.</p> <p>This component invokes the D8-ScheduleRead Business Object using the ATD8ScheduleRead Inbound Web Service.</p>
D8-ScheduleReadType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Schedule Read Type for Itron.</p> <p>This component invokes the D8-ScheduleReadType Business Object using the ATD8ScheduleReadType Inbound Web Service.</p>
D8-RptSelfReadOptionLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a RptSelfReadOptionLookup for Itron.</p> <p>This component invokes the D8-RptSelfReadOptionLookup Business Object using the ATD8RptSelfReadOptionLookup Inbound Web Service.</p>
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	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE an Initiate Meter Read By Meter (Multispeak) outbound communication type.</p> <p>This component invokes the D3-InitMtReadByMtNumType Business Object using the ATD3InitMtReadByMtNumType Inbound Web Service.</p>
D3-IntStsCodeToCondMapLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a value for L+G Interval Status Code to Condition Mapping extendable lookup.</p> <p>This component invokes the D3-IntStsCodeToCondMapLookup Business Object using the ATD3IntStsCodeToCondMapLookup Inbound Web Service.</p>
D3-ReadingChgNotificationType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Reading Change Notification inbound communication type.</p> <p>This component invokes the D3-ReadingChgNotificationType Business Object using the ATD3ReadingChgNotificationType Inbound Web Service.</p>
D3-DeviceEventMappingLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Device Event Mapping Lookup record.</p> <p>This component invokes the D3-DeviceEventMappingLookup Business Object using the ATD3DeviceEventMappingLookup Inbound Web Service.</p>
D3-HeadendUOMLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Head End UOM Lookup record.</p> <p>This component invokes the D3-HeadendUOMLookup Business Object using the ATD3HeadendUOMLookup Inbound Web Service.</p>
D3-InitialLoadIMDInterval	<p>Used to ADD Initial Measurement Interval Data for L+G Adapter.</p> <p>This component invokes the D3-InitialLoadIMDInterval Business Object using the ATD3InitialLoadIMDInterval Inbound Web Service.</p>

Component	Description
D3-InitialLoadIMDScalar	<p>Used to ADD Initial Measurement Scalar Data for L+G Adapter.</p> <p>This component invokes the D3-InitialLoadIMDScalar Business Object using the ATD3InitialLoadIMDScalar Inbound Web Service.</p>
D3-ConnectDisconStateChgNtfTyp	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Connect Disconnect State Change Notification Type record.</p> <p>This component invokes the D3-ConnectDisconStateChgNtfTyp Business Object using the ATD3ConnectDisconStateChgNtfTyp Inbound Web Service.</p>
D3-InitiateConnectDisconType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Initiate Connect Disconnect Type record.</p> <p>This component invokes the D3-InitiateConnectDisconType Business Object using the ATD3InitiateConnectDisconType Inbound Web Service.</p>
D3-LoadActionCodeLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Load Action Code Lookup record.</p> <p>This component invokes the D3-LoadActionCodeLookup Business Object using the ATD3LoadActionCodeLookup Inbound Web Service.</p>
D3-MeterAddNotificationMSType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Meter Add Notification MS Type record.</p> <p>This component invokes the D3-MeterAddNotificationMSType Business Object using the ATD3MeterAddNotificationMSType Inbound Web Service.</p>
D3-MtrRmvNotifMultiSpkType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Meter Remove Notification MultiSpk Type record.</p> <p>This component invokes the D3-MtrRmvNotifMultiSpkType Business Object using the ATD3MtrRmvNotifMultiSpkType Inbound Web Service.</p>

Component	Description
D3-ScheduleDemandResetRespTyp	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Schedule Demand Reset Resp Type record.</p> <p>This component invokes the D3-ScheduleDemandResetRespTyp Business Object using the ATD3ScheduleDemandResetRespTyp Inbound Web Service.</p>
D3-ScheduleDemandResetType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Schedule Demand Reset Type record.</p> <p>This component invokes the D3-ScheduleDemandResetType Business Object using the ATD3ScheduleDemandResetType Inbound Web Service.</p>
D3-AddMeterTo Harness	<p>Used to perform AddMeterToHarness to the LG test harness.</p> <p>This component invokes the D3-AddMeterToHarness Business Object using the ATD3AddMeterToHarness Inbound Web Service.</p>
D3-SetCommissionRequest	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a SetCommissionRequest Type record.</p> <p>This component invokes the D3-SetCommissionRequest using the ATD3SetCommissionRequest Inbound Web Service.</p>
D3-AddMeterToInventoryMSType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Add Meter To Inventory MS Type record.</p> <p>This component invokes the D3-AddMeterToInventoryMSType using the ATD3AddMeterToInventoryMSType Inbound Web Service.</p>
D3-AddMeterToInventoryMultiSp	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Add Meter To Inventory Multi Sp record.</p> <p>This component invokes the D3-AddMeterToInventoryMultiSp using the ATD3AddMeterToInventoryMultiSp Inbound Web Service.</p>

Component	Description
D3-MeterRetireNotificationType	Used to perform actions such as ADD, READ, UPDATE and DELETE a MeterRetireNotificationType record. This component invokes the D3-MeterRetireNotificationType using the ATD3MeterRetireNotificationType Inbound Web Service.
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.

Component	Description
D6-ReadingChgNotificationType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Sensus - Reading Change Notification inbound communication type.</p> <p>This component invokes the D6-ReadingChgNotificationType Business Object using the ATD6ReadingChgNotificationType Inbound Web Service.</p>
D6-SensusMasterConfig	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a Sensus Master Configuration.</p> <p>This component invokes the D6-SensusMasterConfig Business Object using the ATD6SensusMasterConfig Inbound Web Service.</p>
D6-CDCodeReasonLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of a Sensus CD Reason Code record.</p> <p>This component invokes the D6-CDCodeReasonLookup Business Object using the ATD6CDCodeReasonLookup Inbound Web Service.</p>
D6-InitiateOutageDetectionType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of a Sensus Intitiate Outage Detection Type record.</p> <p>This component invokes the D6-InitiateOutageDetectionType Business Object using the ATD6InitiateOutageDetectionType Inbound Web Service.</p>
D6-OutageDetectEvtNotifType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of a Sensus Outage Detection Event Notification Type record.</p> <p>This component invokes the D6-OutageDetectEvtNotifType Business Object using the ATD6OutageDetectEvtNotifType Inbound Web Service.</p>
D6-UnsolicitedEventNotifType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of a Sensus Unsolicited Event Notification Type record.</p> <p>This component invokes the D6-UnsolicitedEventNotifType Business Object using the ATD6UnsolicitedEventNotifType Inbound Web Service.</p>

Component	Description
D6-InitialLoadIMDInterval	<p>Used to ADD Initial Measurement Interval Data for Sensus adapter.</p> <p>This component invokes the D6-InitialLoadIMDInterval Business Object using the ATD6InitialLoadIMDInterval Inbound Web Service.</p>
D6-InitialLoadIMDScalar	<p>Used to ADD Initial Measurement Scalar Data for Sensus adapter.</p> <p>This component invokes the D6-InitialLoadIMDScalar Business Object using the ATD6InitialLoadIMDScalar Inbound Web Service.</p>
D6-SmartMeter	<p>This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a Smart Meter for Sensus adapter.</p> <p>This component invokes the D6-SmartMeter Business Object using the ATD6SmartMeter Inbound Web Service.</p>
D6-ConnectDisconStateChgNtfTyp	<p>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.</p> <p>This component invokes the D6-ConnectDisconStateChgNtfTyp Business Object using the ATD6ConnectDisconStateChgNtfTyp Inbound Web Service.</p>
D6-InitiateConnectDisconType	<p>This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a Initiate Connect Disconnect Type for Sensus adapter.</p> <p>This component invokes the D6-InitiateConnectDisconType Business Object using the ATD6InitiateConnectDisconType Inbound Web Service.</p>
D6-IntStsCodeToCondMapLookup	<p>This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a IntStsCodeToCondMapLookup for Sensus adapter.</p> <p>This component invokes the D6-IntStsCodeToCondMapLookup Business Object using the ATD6IntStsCodeToCondMapLookup Inbound Web Service.</p>

Component	Description
D6-LoadActionCodeLookup	<p>This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a Load Action Code Lookup for Sensus adapter.</p> <p>This component invokes the D6-LoadActionCodeLookup Business Object using the ATD6LoadActionCodeLookup Inbound Web Service.</p>
D6-MeterAddNotificationType	<p>This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a Meter Add Notification Type for Sensus adapter.</p> <p>This component invokes the D6-MeterAddNotificationType Business Object using the ATD6MeterAddNotificationType Inbound Web Service.</p>
D6-MeterRemoveNotifType	<p>This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a Meter Remove Notify Type for Sensus adapter.</p> <p>This component invokes the D6-MeterRemoveNotifType Business Object using the ATD6MeterRemoveNotifType Inbound Web Service.</p>
D6-OutageEventTypeLookup	<p>This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a Outage Event Type Lookup for Sensus adapter.</p> <p>This component invokes the D6-OutageEventTypeLookup Business Object using the ATD6OutageEventTypeLookup Inbound Web Service.</p>
D6-SensusTimeUnits	<p>This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a Sensus Time Units for Sensus adapter.</p> <p>This component invokes the D6-SensusTimeUnits Business Object using the ATD6SensusTimeUnits Inbound Web Service.</p>
D6-ServiceTypeMappingLookup	<p>This component can be used to perform actions such as ADD, READ, and UPDATE and DELETE a Service Type Mapping Lookup for Sensus adapter.</p> <p>This component invokes the D6-ServiceTypeMappingLookup Business Object using the ATD6ServiceTypeMappingLookup Inbound Web Service.</p>

Component	Description
D6-AddMeterToHarness	Used to perform the AddMeterToHarness action to Sensus test harness. This component invokes the D6-AddMeterToHarness Business Object using the ATD6AddMeterToHarness Inbound Web Service.
D6-RemoveMeter	Used to perform the remove meter action from Sensus test harness. This component invokes the D6-RemoveMeter using the ATD6RemoveMeter Inbound Web Service.

SSN

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

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

Component	Description
D7-GetStatusResponseType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Get Status Response Type record.</p> <p>This component invokes the D7-GetStatusResponseType Business Object using the ATD7GetStatusResponseType Inbound Web Service.</p>
D7-GetStatusType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Get Status Type record.</p> <p>This component invokes the D7-GetStatusType Business Object using the ATD7GetStatusType Inbound Web Service.</p>
D7-PingJobRespType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Ping Job Response Type record.</p> <p>This component invokes the D7-PingJobRespType Business Object using the ATD7PingJobRespType Inbound Web Service.</p>
D7-PriorityLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Priority record.</p> <p>This component invokes the D7-PriorityLookup Business Object using the ATD7PriorityLookup Inbound Web Service.</p>
D7-ProvisioningActionLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Provisioning Action record.</p> <p>This component invokes the D7-ProvisioningActionLookup Business Object using the ATD7ProvisioningActionLookup Inbound Web Service.</p>
D7-ProvisioningCommandStatus	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Provisioning Command Status record.</p> <p>This component invokes the D7-ProvisioningCommandStatus Business Object using the ATD7ProvisioningCommandStatus Inbound Web Service.</p>

Component	Description
D7-ProvisioningDataType	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Provisioning Data Type record.</p> <p>This component invokes the D7-ProvisioningDataType Business Object using the ATD7ProvisioningDataType Inbound Web Service.</p>
D7-SSNVersionLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN SSN Version record.</p> <p>This component invokes the D7-SSNVersionLookup Business Object using the ATD7SSNVersionLookup Inbound Web Service.</p>
D7-StatusFlagNameLookup	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE of an SSN Status Flag Name record.</p> <p>This component invokes the D7-StatusFlagNameLookup Business Object using the ATD7StatusFlagNameLookup Inbound Web Service.</p>
D7-InitialLoadIMDInterval	<p>Used to ADD Initial Measurement Interval Data for SSN Adapter.</p> <p>This component invokes the D7-InitialLoadIMDInterval Business Object using the ATD7InitialLoadIMDInterval Inbound Web Service.</p>
D7-InitialLoadIMDScalar	<p>Used to ADD Initial Measurement Scalar Data for SSN Adapter.</p> <p>This component invokes the D7-InitialLoadIMDScalar Business Object using the ATD7InitialLoadIMDScalar Inbound Web Service.</p>
D7-SmartMeter	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Smart Meter for SSN adapter.</p> <p>This component invokes the D7-SmartMeter Business Object using the ATD7SmartMeter Inbound Web Service.</p>
D7-ChannelStatusLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Channel Status Lookup for SSN adapter.</p> <p>This component invokes the D7-ChannelStatusLookup Business Object using the ATD7ChannelStatusLookup Inbound Web Service.</p>

Component	Description
D7-ConnectDisconRespType	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Connect Disconnect Response Type for SSN adapter.</p> <p>This component invokes the D7-ConnectDisconRespType Business Object using the ATD7ConnectDisconRespType Inbound Web Service.</p>
D7-ConnectDisconnectType	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Connect Disconnect Type for SSN adapter.</p> <p>This component invokes the D7-ConnectDisconType Business Object using the ATD7ConnectDisconType Inbound Web Service.</p>
D7-HeadendSQILookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Headend SQI Lookup for SSN adapter.</p> <p>This component invokes the D7-HeadendSQILookup Business Object using the ATD7HeadendSQILookup Inbound Web Service.</p>
D7-HeadendTOULookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Headend TOU Lookup for SSN adapter.</p> <p>This component invokes the D7-HeadendTOULookup Business Object using the ATD7HeadendTOULookup Inbound Web Service.</p>
D7-HeadendUOMLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Headend UOM Lookup for SSN adapter.</p> <p>This component invokes the D7-HeadendUOMLookup Business Object using the ATD7HeadendUOMLookup Inbound Web Service.</p>
D7-IntStsCodeToCondMapLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a IntStsCodeToCondMapLookup for SSN adapter.</p> <p>This component invokes the D7-IntStsCodeToCondMapLookup Business Object using the ATD7IntStsCodeToCondMapLookup Inbound Web Service.</p>

Component	Description
D7-IntervalStatusLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Interval Status Lookup for SSN adapter.</p> <p>This component invokes the D7-IntervalStatusLookup Business Object using the ATD7IntervalStatusLookup Inbound Web Service.</p>
D7-MeterConnectionStatusLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Meter Connection Status Lookup for SSN adapter.</p> <p>This component invokes the D7-MeterConnectionStatusLookup Business Object using the ATD7MeterConnectionStatusLookup Inbound Web Service.</p>
D7-MeterReadTypeLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Meter Read Type Lookup for SSN adapter.</p> <p>This component invokes the D7-MeterReadTypeLookup Business Object using the ATD7MeterReadTypeLookup Inbound Web Service.</p>
D7-OldAdminStateNameLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE an Old Admin State Name Lookup for SSN adapter.</p> <p>This component invokes the D7-OldAdminStateNameLookup Business Object using the ATD7OldAdminStateNameLookup Inbound Web Service.</p>
D7-ReadModeLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Read Mode Lookup for SSN adapter.</p> <p>This component invokes the D7-ReadModeLookup Business Object using the ATD7ReadModeLookup Inbound Web Service.</p>
D7-RegisterReadSourceLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Register Read Source Lookup for SSN adapter.</p> <p>This component invokes the D7-RegisterReadSourceLookup Business Object using the ATD7RegisterReadSourceLookup Inbound Web Service.</p>

Component	Description
D7-RegisterStatusLookup	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Register Status Lookup for SSN adapter.</p> <p>This component invokes the D7-RegisterStatusLookup Business Object using the ATD7RegisterStatusLookup Inbound Web Service.</p>
D7-RepDeviceAtLocForDecommType	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a RepDeviceAtLocForDecommType for SSN adapter.</p> <p>This component invokes the D7-RepDeviceAtLocForDecommType Business Object using the ATD7RepDeviceAtLocForDecommType Inbound Web Service.</p>
D7-ReplaceLocationType	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Replace Location Type for SSN adapter.</p> <p>This component invokes the D7-ReplaceLocationType Business Object using the ATD7ReplaceLocationType Inbound Web Service.</p>
D7-VersionMasterConfig	<p>Used to perform actions such as ADD, READ, and UPDATE and DELETE a Version Master Configuration for SSN adapter.</p> <p>This component invokes the D7-VersionMasterConfig Business Object using the ATD7VersionMasterConfig Inbound Web Service.</p>
D7-AddMeterToHarness	<p>Used to perform the AddMeterToHarness action to SSN test harness.</p> <p>This component invokes the D7-AddMeterToHarness using the ATD7AddMeterToHarness Inbound Web Service.</p>
D7-SetCommissionRequest	<p>Used to perform actions such as ADD, READ, UPDATE and DELETE a SetCommissionRequest Type record.</p> <p>This component invokes the D7-SetCommissionRequest using the ATD7SetCommissionRequest Inbound Web Service.</p>
D7-SetVoltage	<p>Used to perform action set voltage on a SSN device in test harness.</p> <p>This component invokes the D7-SetVoltage using the ATD7SetVoltage Inbound Web Service.</p>

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 Flow Builder 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 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 Functional Testing Advanced Pack for Oracle Utilities. It also explains the procedure to execute these sample flows.

The sample flows delivered as part of Oracle Functional Testing Advanced Pack for Oracle Utilities 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, there by giving the user, the ability to deploy Oracle Functional Testing Advanced Pack for Oracle Utilities for Oracle Utilities Meter Data Management/ Oracle Utilities Smart Grid Gateway and execute 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](#)
- [Executing 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 (IMD) 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 (IMD) 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 (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 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.

Executing Sample Flows

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

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

Pre-requisites

To execute the sample flow, ensure the following pre-requisites are met:

- Oracle Utilities Meter Data Management v2.2.0/ Oracle Utilities Smart Grid Gateway v2.2.0 is up and running with the demo data pack.
- OpenScript is installed in the local machine. See the *Oracle Functional Testing Advanced Pack for Oracle Utilities Installation and Administration Guide* for the version details.
- Oracle Functional Testing Advanced Pack for Oracle Utilities is installed and repository/ directory is setup in the local machine appropriately. See the *Oracle Functional Testing Advanced Pack for Oracle Utilities Installation and Administration Guide* for more details.

Setting Up Sample Flows

To setup a sample flow, follow these steps:

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 Functional Testing Advanced Pack for Oracle Utilities 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**, and then select **Error Recovery**.
 - c. Click **SetAll** and select **Report Error and Continue**.
 - d. Click **Apply**, and then click **Close**.

7. Configure the **configuration.properties** file as follows:
 - a. Provide the application URL for the parameter:


```
gStrApplicationURL = http\://<%serverName%>\:<%portNumber%>/ouaf
```
 - b. Provide the additional path required for Inbound Web service URL:


```
gStrApplicationXAIServerPath=/<%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 as below:


```
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:\\OATSOUWMM_DEMO\\OUTSP\\Logs\\
gStrXSDFiles=<%XSD Folder path%>
Example: C:\\OATSOUWMM_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 executing 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 Functional Testing Advanced Pack for Oracle Utilities User's Guide*.

List of Inbound Web Services

This section includes the Inbound Web Services provided to use with the delivered components and flows in [Oracle Utilities Meter Data Management/ Oracle Utilities Smart Grid Gateway](#):

Oracle Utilities Meter Data Management

- ATD1AutoReadRegisterType
- ATD1AvgDailyEstItemConsumption
- ATD1Business
- ATD1ContactType
- ATD1DeviceConfiguration
- ATD1DeviceConfigurationType
- ATD1DeviceEventSeeder
- ATD1DeviceWithDurationActType
- ATD1DuplicateIMDCheck
- ATD1ElectricityNetworkLocation
- ATD1EstimationIMDInterval
- ATD1EstimationIMDScalar
- ATD1ExceptionType
- ATD1ExternalApplication
- ATD1FactorNumber
- ATD1FactorProfile
- ATD1FactorVEEGroup
- ATD1FactorValueNumber

- ATD1FactorValueProfile
- ATD1FactorValueVEEGroup
- ATD1FieldActivity
- ATD1HeadEndSystem
- ATD1HeadendSQLLookup
- ATD1HowToCreateMCInformation
- ATD1HowToProcessDeviceInfo
- ATD1IMDSeeder
- ATD1InitialLoadIMDInterval
- ATD1InitialLoadIMDScalar
- ATD1IntervalChannel
- ATD1IntervalChannelTypePhysical
- ATD1IntervalScratchpad
- ATD1Item
- ATD1ItemConfigurationType
- ATD1ItemInstallEvent
- ATD1ItemType
- ATD1ManualIMDInterval
- ATD1ManualIMDScalar
- ATD1ManualMeter
- ATD1ManualMeterInstallEvent
- ATD1ManualMeterType
- ATD1Manufacturer
- ATD1Market2
- ATD1MeasurementCycle
- ATD1MeasurementCycleRoute
- ATD1MeasurementCycleSchedule
- ATD1MeterReadDownloadActType
- ATD1PairedEventFirstDvcEvtType
- ATD1PairedEventLastDvcEvtType
- ATD1Person
- ATD1ReaderRemark
- ATD1ReaderRemarkType
- ATD1Register
- ATD1RegisterAutoRead
- ATD1RegisterTypePhysical
- ATD1RemoteConnectType
- ATD1ServiceIssueMonitor

- ATD1ServiceIssueMonitorType
- ATD1ServicePoint
- ATD1ServicePointType
- ATD1ServiceQuantityIdentifier
- ATD1ServiceType
- ATD1SmartMeter
- ATD1SmartMeterInstallEvent
- ATD1SmartMeterType
- ATD1StandardDeviceEventType
- ATD1TimeOfUse
- ATD1TimeZoneTranslationLookup
- ATD1Transformer
- ATD1UTCCorrectnPrcessrActvtyType
- ATD1UnitOfMeasure
- ATD1UsageGroup
- ATD1VEEEligibilityCriteria
- ATD1VEEGroup
- ATD1VEERuleExceptionHandler
- ATD1VEERuleGroupFactor
- ATD1VEERuleReferredVEEGroup
- ATD1VEERuleSuccessTermination
- ATDMElectricServicePoint
- ATD2ActivityTypeAggDimScanner
- ATD2AggregatorType
- ATD2ApplyMathInt
- ATD2DynamicOption
- ATD2DynamicOptionEvent
- ATD2DynamicOptionType
- ATD2EnsureIMDExistsForSibling
- ATD2FinalMeasurementValidation
- ATD2GetIntervalData
- ATD2GetItemCountsConsumption
- ATD2GetScalar
- ATD2GetTOUUsage
- ATD2HowToCreateUSInformation
- ATD2IntervalAdjustmentFrmScalar
- ATD2IntervalAveragingEstimation
- ATD2IntervalInterpolationEst

- ATD2IntervalProfileEstimation
- ATD2IntervalReplacementRule
- ATD2IntervalSizeValidation
- ATD2IntervalSpikeCheck
- ATD2MasterMsrmtAggregatorType
- ATD2Math
- ATD2MsrmtQuantityAggScannerType
- ATD2NegativeConsumptionCheck
- ATD2RaiseMissingQuantityExcp
- ATD2RegisterMultiplierCheck
- ATD2SSMeterReadTaskType
- ATD2ScalarCalcFromInterval
- ATD2ScalarEstimation
- ATD2ScalarProfileEstimation
- ATD2ScalarReplacementRule
- ATD2SubMeasurementAggType
- ATD2SumCheck
- ATD2TOUGroup
- ATD2TOUMap
- ATD2TOUMapTemplate
- ATD2TOUMapType
- ATD2UOMCheck
- ATD2UsageCalculationGroupLookup
- ATD2UsageSubscription
- ATD2UsageSubscriptionType
- ATD2UsageTransaction
- ATD2UsgTranSeeder
- ATD2VEERuleHighLowCheck
- ATD2ValAgainstTol
- ATD2VerifyUomTouSqimCExistForUs
- ATD2ZeroConsumptionCheck
- ATD1GETDVCAMI
- ATGetSimdIdFromImd
- ATGetMCFrmDvcExtId
- ATGetProductKeyFromSync
- ATD1GetUsageFromExtID
- ATD2GetUSFromExtID
- ATGetDCFrmDvcExtId

- ATGetInstEvtFromDvcExId
- ATGetInstEvtFrmSPExtId
- ATD1RETMCEXT
- ATD1GetContactFromExtID
- ATD1GetSpFromExtID
- ATRETSYEXT
- ATD2DynCompValidation
- ATD1ChannelStatistics
- ATD1ChannelStatisticsType
- ATD1MeasuringCompTypLite
- ATD1IntervalChannelSubtractive
- ATD1IntrvlChanTypPhysSubtractiv
- ATD1SubtractiveIntvalMeasurement
- 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

Oracle Utilities Smart Grid Gateway

- 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