Oracle Utilities Meter Data Management 2 Essentials Exam Study Guide
Objective & Audience

Objective
Help you prepare to take the Oracle Utilities Meter Data Management 2 Essentials (1Z0-598) Exam by providing pointers to resources that you can use in your preparation.

Targeted Audience

- Implementation Consultants with 2+ years working in the utility space with Meter Data Management applications.

Note:
Oracle Utilities Meter Data Management v2 Functionality For Implementers Boot Camp training is required throughout the study guide.

The following are prerequisite training for this boot camp:
- Oracle Utilities Meter Data Management v2 Fundamentals Boot Camp
- Oracle Utilities Application Framework v4.x Configuration Tools Boot Camp
Exam Topics & Objectives

Exam Topics
The Oracle Utilities Meter Data Management 2 Implementation Essentials exam consists of eleven topics:

1. Devices & Measuring Components
2. Service Points & Install Events
3. Measurements
4. Time of Use Maps
5. VEE
6. Usage Subscriptions
7. Usage
8. Activities & Dynamic Options
9. Aggregation
10. Device Events
11. User Interface and Navigation
Exam Objectives

The exam objectives are defined by learner or practitioner level of knowledge:

• **Learner-level:** questions require the candidate to recall information to determine the correct answer.

  Example: Define the term network.

• **Practitioner-level:** questions require the candidate to derive the correct answer from the application of their knowledge, which can only be attained by extensive experience with the product.

  Example: The client requests xyz functionality, would you recommend a, b or c?
Training Options

For each exam topic there have been identified alternative training options that are available at Oracle. The training options are divided into three categories:

• **Boot Camps**
  The Boot Camps are designed as a "jump start" training to enhance your skills by providing role-based training on industry-leading Oracle solutions and services. The boot camps are built as concise, intensive, and real-time training to give partners a competitive advantage as they prepare to build powerful solutions for their own customer base. Partners can choose to attend these boot camps in class or in a live virtual class format to maximize the effectiveness and the time allocated to training.

• **Instructor-Led Training (delivered by Oracle University)**
  Partners can take any publicly-scheduled Oracle University courses at steep discounts. Benefit from hands on experience to gain real working skill and work toward Oracle certifications.

• **Online Training**
  Oracle Partners are entitled free access to the Oracle Knowledge Center (OUKC), a vast library of recorded product courses. New courses are regularly added to the library, providing partners with the latest information and training to master new products or to increase proficiency on the new releases.

  **OPN Competency Center** is an intelligent training tool that allows partners to manage their Oracle training with role-focused guided learning paths and measure their achievement toward Specialization:
Topic 1: Devices & Measuring Components

Objectives

• Explain the concept of a device and the structures used to represent them
• Explain the concept of a measuring component and the structures used to represent them
• Explain the relationship between devices and measuring components
• Explain scalar and interval measuring components
• Explain the different types of measuring components
• Configure a new device type
• Configure a new measuring component type
• Configure a new device config type and associate a measuring component to a device
• Use the Duplicate feature to copy a device type or a measuring component type
• Use the Device Replicator to create copies of a device
• Explain the device configuration overview zone (with respect to devices, device configurations and measuring components)

Level

Learner

Practitioner

Learner

Practitioner

Practitioner

Learner

Training Options

• Boot Camp
  – Oracle Utilities Meter Data Management v2 Functionality For Implementers Boot Camp

• Online Training
  – Oracle Utilities Meter Data Management Implementation Consultant

Sample Questions:

What type of Measuring Component is used associated to meters that are installed at a Service Point?

a) Standalone
b) Aggregator
c) Physical
d) Scratchpad

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Topic 2: Service Points & Install Events

Objectives

- Explain the concept of a service point
- Explain the concept of an install event and the relationship between devices and service points
- Explain service point hierarchies and when they should be used
- Explain service providers in the context of service points and market relationships
- Configure a new service point type
- Configure the set of valid device types for a given service point type
- Configure a custom Service Point BO
- Configure a new validation rule and plug it into an Install Event BO
- Explain when you would use a measurement cycle in MDM
- Explain the 3 batch processes that manage the measurement cycles
- Configure a new algorithm on the SP/Measurement Cycle BO to perform a cycle based function

Level

- Learner
- Learner
- Learner
- Learner
- Practitioner
- Practitioner
- Practitioner
- Learner
- Practitioner
- Practitioner

Training Options

- Boot Camp
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- Online Training
  - Oracle Utilities Meter Data Management Implementation Consultant

Sample Questions:

Which item below best describes the goal for selecting ‘Maximum’ as the comparison method for the High/Low validation rule?

a) To identify intervals with suspiciously high usage relative to surrounding intervals.
b) To identify if a configurable percentage of missing measurements exceeds the specified percentage.
c) The rule compares the Average Daily Usage of the current Initial Measurement Data with the Average Daily Usage for historical measurements.
d) The rule compares the Peak Usage of the current Initial Measurement Data with the Peak Usage for historical measurements.

Which validation rule calculates the difference between the highest interval and the third-highest interval to determine the percent difference between the two?

a) High/Low validation  
b) SPI Check  
c) Interval Spike Check  
d) Raise Missing Quantity  
e) High/Low validation and Interval Spike Check
Topic 3: Measurements

Objectives

- Explain the differences between initial measurements, final measurements, and usage
- Explain the high level process of loading measurements through to calculating usage
- Explain Initial Measurement Data including pre and post VEE qualities, scalar vs interval, SPI, condition flags, etc.
- Update final measurements manually
- Explain how and when the system normalizes final measurements
- Explain derived values and how they are associated with final measurements
- Configure a new derive value algorithm
- Navigate to and examine the algorithm that contains the logic for normalizing measurements
- Explain the Initial Load architecture at a high level including which parts of the initial load process MDM is responsible for
- Explain the IMD Seeder BO, including lifecycle and rules, how the IMD Seeder derives head-end and measuring component information and how the "real" IMD BO is determined during load via the IMD Seeder process.
- Explain how MDM handles daylight savings time, including the difference between standard and local time, how daylight savings participation can be handled for different devices and when date/time manipulation occurs.
- Explain the three types of IMD and the differences between them
- Explain how scalar and interval IMDs differ, and how they are the same
- Configure a new service provider processing method to define the type of IMD BO to create
- Configure a hand-crafted IMD XML document that can be loaded into MDM as an IMD
- Use the Initial Measurement Data Upload to load IMD XML data manually
- Transition 'Pending' IMDs to a finalized state
- Explain the IMD exception statuses and the Automatic Retry functionality
- Explain the points at which missing measurements can be estimated
Training Options

- Boot Camp
  - Oracle Utilities Meter Data Management v2 Functionality For Implementers Boot Camp

- Online Training
  - Oracle Utilities Meter Data Management Implementation Consultant

Sample Questions

**Define the initial load process for Meter Data Management (MDM)**

a) MDM transforms the incoming data into an IMD Seeder XML, which is received and validated by Smart Grid Gateway (SGG) to create the specific Initial Load IMD BO for continued processing.

b) MDM transforms the incoming data into an IMD Seeder XML, which is received and validated by MDM to create the specific Initial Load IMD BO for continued processing.

c) SGG transforms the incoming data into an IMD Seeder XML, which is received and validated by SGG to create the specific Initial Load IMD BO for continued processing by SGG. MDM is not involved.

d) SGG transforms the incoming data into an IMD Seeder XML, which is received and validated by MDM to create the specific Initial Load IMD BO for continued processing.

**Which statement describes the correct approach in order to estimate missing measurements by MDM?**

a) An estimation rule can be configured which generates estimated values for the original IMD BO.

b) An estimation rule can be configured which generates an Estimated IMD BO with the estimated values.

c) An estimation rule can be configured within an algorithm when creating the Final Measurement BO.

d) An estimation rule can be configured within an algorithm that updates the Final Measurement BO.
Topic 4: Time of Use Maps

Objectives

- Explain basic TOU concepts (i.e. their purpose)
- Explain a TOU Map Template and how it is used to generate TOU Map Data
- Explain the purpose of a work calendar
- Explain TOU Map Template interval size and how it relates to measuring component SPI
- Explain how and when the system applies TOU maps to final measurements
- Explain the ways that TOU maps are used across the application
- Explain the data structures used to represent TOU Maps
- Explain the performance implications of the base package covering index on the measurements table.
- Configure a new TOU Map Template, a TOU Map Type and a TOU Map
- Generate TOU map data and check for correctness

Training Options

- Boot Camp
  - Oracle Utilities Meter Data Management v2 Functionality For Implementers Boot Camp

- Online Training
  - Oracle Utilities Meter Data Management Implementation Consultant

Sample Questions:

What is the order of Time of Use configuration?

a) Time of Use Map Template, Time of Use Codes, and Time of Use Groups
b) Time of Use Codes, Time of Use Map Template and Time of Use Groups
c) Time of Use Groups, Time of Use Map Template and Time of Use Codes
d) Time of Use Codes, Time of Use Groups, and Time of Use Map Template
## Topic 5: VEE

### Objectives

<table>
<thead>
<tr>
<th>Objective</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Explain the difference between critical validations and validation rules, including when critical validations are executed and when validation rules are executed</td>
<td>Learner</td>
</tr>
<tr>
<td>• Explain the VEE process, including the data preparation steps that are executed immediately prior to entering VEE processing, what data is passed into the VEE engine and what happens during VEE execution for a given IMD</td>
<td>Learner</td>
</tr>
<tr>
<td>• Configure new VEE Groups that contain base package VEE rules and apply a VEE group to a device or device type</td>
<td>Practitioner</td>
</tr>
<tr>
<td>• Configure eligibility criteria and criteria field value retrieval algorithms to determine if a rule should be applied</td>
<td>Practitioner</td>
</tr>
<tr>
<td>• Explain the types of comparison supported by the base package eligibility criteria BO, and what would need to be done to support additional comparisons.</td>
<td>Learner</td>
</tr>
<tr>
<td>• Configure factors (VEE Matrices) to invoke groups of rules</td>
<td>Learner</td>
</tr>
<tr>
<td>• Explain VEE Roles and the three main VEE Roles provide in the base package</td>
<td>Practitioner</td>
</tr>
<tr>
<td>• Explain the categories of IMD exceptions (generated by VEE rules)</td>
<td>Learner</td>
</tr>
<tr>
<td>• Explain the base package parent D1-GenericVEERule BO and what it provides, including where the validation rule logic resides.</td>
<td>Learner</td>
</tr>
<tr>
<td>• Configure the Apply Formula service to perform mathematical functions</td>
<td>Practitioner</td>
</tr>
<tr>
<td>• Configure a new VEE rule, including the use of the interval consumption retriever service.</td>
<td>Practitioner</td>
</tr>
<tr>
<td>• Explain how to create new VEE rules as well as the key considerations to be taken into account when doing so.</td>
<td>Learner</td>
</tr>
</tbody>
</table>

### Training Options

- **Boot Camp**
  - Oracle Utilities Meter Data Management v2 Functionality For Implementers Boot Camp

- **Online Training**
  - Oracle Utilities Meter Data Management Implementation Consultant
Sample Questions:

Which of the following are is an example of a critical validation performed by the IMD Seeder Business Object?

a) Performing a Spike Check.
b) Deriving the head-end system and the measuring component.
c) Perform a High Low Check.
d) Estimate missing intervals.
Topic 6: Usage Subscriptions

Objectives

- Explain the concept of usage subscriptions
- Explain the possible relationships between measuring components, service points and usage subscriptions
- Explain what contacts represent
- Explain the role of service providers with regards to usage subscriptions
- Design and set up the admin data required to effectively configure a usage subscription
- Design and set up a service provider for a subscribing system

Level

- Learner
- Learner
- Learner
- Learner
- Practitioner
- Practitioner

Training Options

- Boot Camp
  - Oracle Utilities Meter Data Management v2 Functionality For Implementers Boot Camp

- Online Training
  - Oracle Utilities Meter Data Management Implementation Consultant

Sample Questions:

On the Usage Subscription Type which of the following two entities are referenced?

a) Valid Device Types
b) Valid Service Point Types
c) Valid Usage Recipients
d) Valid Time of Use Groups
Topic 7: Usage

Objectives

• Explain the usage calculation process
• Explain the relationship between usage transactions and usage subscriptions
• Explain date breaks and usage periods
• Create a usage calculation group containing base package usage calculation rules to solve a business problem
• Configure a call to a base package usage rule by changing its soft parameters
• Configure eligibility criteria for usage rules
• Configure a usage calculation rule to apply a TOU map and derive summed values for each bucket
• Configure the Apply Math (Interval Data) usage rule to perform mathematical operations on interval data.
• Configure the Usage Rule - Math usage rule to perform mathematical operations on service quantities
• Use the Get Scalar Details usage rule to retrieve scalar measurements for scalar interval measuring components
• Use the Get Interval Data usage rule to retrieve interval measurements for interval measuring components.
• Set up a new usage calculation rule with custom logic (defined in Java or scripting) based on the generic, base package usage calculation rule
• Create a factor with a value and a factor that uses the override function on the usage subscription and apply the factor in a usage transaction

Level

Learner
Learner
Learner
Practitioner
Practitioner
Practitioner
Practitioner
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Practitioner
Practitioner
Practitioner

Training Options

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• Online Training
  – Oracle Utilities Meter Data Management Implementation Consultant
Sample Questions:

Which usage rule can be applied to get the peak usage from interval measuring components?

a) Get Interval Data
b) Get Scalar Usage
c) Get TOU Mapped Usage
d) Apply Math
e) Get Interval Data and Apply Math
Topic 8: Activities & Dynamic Options

Objectives

• Explain activities and define what they can be used to represent
• Explain dynamic options and their relationship to time of use maps
• Configure a new dynamic option type
• Apply a dynamic option to a TOU Map and create a Usage Transaction with the Dynamic Option TOU codes

Training Options

• Boot Camp
  – Oracle Utilities Meter Data Management v2 Functionality For Implementers Boot Camp

• Online Training
  – Oracle Utilities Meter Data Management Implementation Consultant

Sample Questions:

Activities can service a variety of function sin MDM but are primarily used for which function?

a) Error handling in MDM
b) Reporting
c) Orchestrate events form external systems
d) Validate sync requests
**Topic 9: Aggregation**

**Objectives**
- Explain the concept of aggregations and describe which Bos are used to support aggregation functionality
- Explain the concepts of aggregation horizon and aggregation lag
- Manually create a new aggregator measuring component
- Configure a custom aggregation
- Explain the Trends and Total view and information available on aggregations

**Level**
- Learner
- Learner
- Practitioner
- Practitioner
- Learner

**Training Options**

- **Boot Camp**
  - Oracle Utilities Meter Data Management v2 Functionality For Implementers Boot Camp

- **Online Training**
  - Oracle Utilities Meter Data Management Implementation Consultant

**Sample Questions:**

**Select the item that can be aggregated:**

- a) Postal Code
- b) Transformer
- c) Substation
- d) Feeder
- e) Unit of Measure
Topic 10: Device Events

Objectives

- Explain device events and what they are used to represent
- Explain event subscriptions
- Describe paired events and what they can be used to represent
- Configure the system to process device events for a specific type of customer

Training Options

- Boot Camp
  - Oracle Utilities Meter Data Management v2 Functionality For Implementers Boot Camp

- Online Training
  - Oracle Utilities Meter Data Management Implementation Consultant

Sample Questions:

**Device events can be defined by which attributes?**

a) Device Event Category, Meter Type, Scalar Meter and Smart Meter.
b) Standard Event Name, Device Event Category, Reporting Category, and Activity Type.
c) Standard Event Name, Device Event Category, Meter Type and Reporting Category
d) Device Event Category, Activity Type, Meter Type and Register Type
e) Standard Event Name, Activity Type, Scalar Meter and Smart Meter
f) Device Event Category, Reporting Category, Activity Type, and Meter Type
Topic 11: User Interface and Navigation

Objectives

• Explain how the Current Context works with respect to contacts, usage subscriptions, service points, devices, measuring components, etc

• Use the 360 degree view screens to navigate between the different viewpoints (contact, usage subscription, service point, device, measuring component, etc)

• Change the available Final Value Overlay Profiles available for a given MC Type

• Change the available Event Bar Profile event bars displayed for a given MC Type

Training Options

• Boot Camp
  – Oracle Utilities Meter Data Management v2 Functionality For Implementers Boot Camp

• Online Training
  – Oracle Utilities Meter Data Management Implementation Consultant

Sample Questions:

In which 360 Degree View Portal can you view the Initial Interval Measurement Zone?

a) Device 360 Degree View Portal
b) Service Point 360 Degree View Portal
c) Measuring Component 360 Degree View Portal
d) Usage Subscription 360 Degree View Portal
Exam Registration

• How to register for the exam?
  You can register for all Oracle certification exams with Pearson VUE. Before a registration can be submitted, a Pearson VUE profile must be created using your Company ID. Your Company ID can be obtained by contacting your local Oracle Partner Business Center or by signing in to your OPN account. Your Company ID is located in the section on the right under "Company information".

Please follow these instructions in order to properly set-up your Pearson VUE account for the first time.

• Have you completed an Oracle Certification Exam in the past?
  Due to systems enhancements, each partner who has completed an Oracle Certification Exam will need to update their Pearson VUE profile in order to receive credit and for those records to appear in the OPN Competency Center.

• How to get full recognition as Certified Implementation Specialist?
  To get full recognition as a Certified Implementation Specialist you need to:
  A. Update your Pearson VUE profile with your Company ID
  B. Activate your Certview Account

Please follow these instructions and your records will be properly recorded.
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