



GRID SOFTWARE UNIVERSITY

# Gridscale X™ Meter Data Management

## Course Catalog

Document: GSW-U-MDM-EN-TP

**SIEMENS**

# Contents

<b>1.</b>	<b>Gridscale X™ Meter Data Management Instructor-Led Courses.....</b>	<b>3</b>
1.1	MDM Technical Certification .....	4
1.2	MDM Essentials.....	6
1.3	MDM System Administration .....	7
1.4	MDM Custom Application Development .....	8
1.5	Foundations for End Users.....	10
1.6	Foundations for Implementation Teams.....	11
1.7	Billing for Customer Service Representatives .....	12
1.8	Validation Analyst Training .....	13
<b>2.</b>	<b>Gridscale X™ Meter Data Management On Demand Courses .....</b>	<b>14</b>
2.1	Advanced Device Management (ADM) .....	15
2.2	Analytics Foundation and Revenue Protection (AF&RP) .....	15
2.3	Billing Readiness .....	17
2.4	Business Monitoring (BizMon) .....	18
2.5	Business User (E9xBizUser) .....	18
2.6	Event and Data Action Manager (EDAM) .....	19
2.7	EnergyIP 8x.....	19
2.8	EnergyIP 9.0 .....	25
2.9	Meter Data Management 9.1 (MDM) .....	30
2.10	Energy Solutions (ESolutions) .....	30
2.11	Meter Data Management SaaS (MDM SaaS) .....	34
2.12	Market Transaction Manager (MTM) .....	35
2.13	New UI .....	35
2.14	Outage Event Management (OEM) .....	35
2.15	EnergyIP Prepay Application Demonstration .....	36
2.16	EnergyIP Prepay Overview .....	36
2.17	SAP Adapter.....	37
2.18	Settlements .....	37

# 1. Gridscale X™ Meter Data Management Instructor-Led Courses

This Course Catalogue has everything for your customer to get started using the Gridscale X™ Meter Data Management platform and applications.

.

# 1.1 MDM Technical Certification

## Objectives

This comprehensive program provides scenario-based, hands-on experience to guide participants through the major processes they will complete while installing and implementing Meter Data Management.

This course prepares each student to implement Gridscale X™ MDM and focuses on:

1. Overview and data model
2. Synchronization
3. Data Collection
4. Data Delivery
5. Data Transfer

This certification course runs part-time for one month. It combines live, virtual instructor-led training and technical labs with online learning with 24/7 access to the Learning Cloud and certification discussion forums.

You can expect to complete 20 hours of self-study each week on the core technologies of Gridscale X™ MDM and attend the virtual instructor-led labs twice a week for 3 hours each. The last session includes the hands-on certification exam.

## General Information

**Course Code** CertMDM91

**Delivery Method** Blended vILT

**Duration** 24 Hours

**Language** English

## Target Audience

Roles: MDM Managers, System Administrators, Business Supervisors

## Prerequisites

- Unix/Linux
- SQL/Oracle Skills
- EnergyIP Experience
- Utility industry experience

## Content

The topics included are:

1. Introduction to the Course, Implementation Scenario, and Synchronization
2. Interpreting and applying the Project Functional Specifications (PFS) to configure and validate Meter Reads, Universal AMI Adapter, Device Reads Processor
3. Configuration Management, Using the System Console and Reference Data Utility
4. Using the PFS to configure and validate Validation, Estimation and Editing (VEE), Framing
5. Graphical Editing, Data Delivery, Using the PFS to configure and validate Billing.
6. Using the PFS to configure and validate Billing, continued
7. Troubleshooting, Provisioning, Commissioning, Device Control Transactions
8. Reports, Course Review, Certification Exam

Week	Virtual Class Sessions	Hands-On Labs
1	<p>Synchronization</p> <ul style="list-style-type: none"> <li>MDM and Sync Concepts</li> <li>Organizations</li> <li>Scenario specifications</li> <li>Data Model</li> <li>Rule Sheets</li> <li>FlexSync Rules</li> <li>XML Files</li> </ul> <p>Meter Reads &amp; Data Collection</p> <ul style="list-style-type: none"> <li>Device Reads Processor</li> <li>Measurement Types</li> <li>Universal AMI Adapter (UAA)</li> <li>UAA XML Files</li> </ul>	<ul style="list-style-type: none"> <li>Create an Org</li> <li>Create new device class</li> <li>Create FlexSync instance</li> <li>Build a measurement type</li> <li>Import RDU</li> <li>Restart the AMI Adapter</li> <li>Create and test FlexSync rule</li> <li>Process a asset and meter data files</li> </ul>
2	<p>Meter Reads &amp; Events</p> <ul style="list-style-type: none"> <li>Reads &amp; Events</li> <li>Troubleshooting</li> <li>Reference Data Utility</li> <li>Configuration Tools</li> </ul> <p>Event &amp; Data Action Manager (EDAM)</p> <ul style="list-style-type: none"> <li>Architecture, Data Flow, Hardware Sizing</li> <li>Create and Test an EDAM Rule</li> <li>Labs – Batch and Continuous Rules</li> </ul> <p>Validation</p> <ul style="list-style-type: none"> <li>Introduction &amp; Device Reads Processor</li> <li>Validation, Estimation, and Framing</li> <li>Scored post-session lab</li> </ul>	<ul style="list-style-type: none"> <li>Meter Reads Exception Handling Process</li> <li>Device Events Processor</li> <li>Implement VEE in your Org</li> <li>EDAM, Create Tamper Detection Rule</li> <li>EDAM, Unexpected Consumption Rule</li> <li>Validation Rules, Failure Logic</li> <li>Experiment with Gap Data</li> <li>Create a TOU Schedule</li> </ul>
3	<p>Data Delivery</p> <ul style="list-style-type: none"> <li>Graphical Editing and the UI</li> <li>VEE Service Requests</li> <li>Virtual Channels</li> <li>Data Delivery and Billing</li> </ul> <p>Billing</p> <ul style="list-style-type: none"> <li>Read Times</li> <li>Exception Handling</li> <li>Billing Validation</li> <li>Business Events</li> <li>Export and System Console</li> <li>Data Transfer</li> </ul>	<ul style="list-style-type: none"> <li>Graphical Editor</li> <li>Virtual Channels Using Service Point Parameters</li> <li>Billing Processing Parameters</li> <li>Process a Billing Request</li> <li>Set up On-Cycle, Off-Cycle Billing</li> <li>Explicit Processing Window</li> <li>Export and System Console</li> <li>Calculative Billing determinants</li> <li>Billing Data Change</li> <li>Data Transfer</li> </ul>
4	<p>Business Monitoring</p> <ul style="list-style-type: none"> <li>Installation/Upgrades/Migration</li> <li>Branding</li> <li>Business Monitoring</li> <li>Provisioning and Commissioning</li> <li>Device Control Transactions (DCT)</li> </ul> <p>Reporting, Review, Exam</p> <ul style="list-style-type: none"> <li>Reporting</li> <li>Course Review</li> <li>Exams</li> </ul>	<ul style="list-style-type: none"> <li>Provisioning, FRV and AMR Cutover</li> <li>Connect, Disconnect</li> <li>Custom Types</li> <li>Reporting</li> <li>Proctored Knowledge Exam</li> <li>Distribution of the Hands-On Exam Specifications</li> </ul>

## 1.2 MDM Essentials

### Objectives

Meter Data Management (MDM) Essentials training is an instructor led course. MDM Essentials will be a 3-session training program that will cover concepts and the major technical components of MDM and EnergyIP. This course is designed to provide lead business and technical operation team members with live system demonstrations and hands-on activities.

### General Information

**Course Code** MDMEssent

**Delivery Method** Blended vILT

**Duration** 9 Hours

**Language** English

### Target Audience

Roles:

- Project Managers
- Account Managers
- MDM Business Users
- Systems and technical (for whom Certification would be too much)
- Anyone who is new to MDM

### Prerequisites

Students do not need to be experts but should have some:

- Utility industry experience
- Familiarity with meter to cash and basics of meter data management

### Content

Session	Topics	Sample Demos and Labs
1	<ul style="list-style-type: none"> <li>• Objective of having MDM</li> <li>• Meter to cash solution</li> <li>• Data Collection process</li> </ul>	<ul style="list-style-type: none"> <li>• New UI Walkthrough</li> <li>• Navigating VEE issues page and exploring VEE issues</li> <li>• Exploring Usage channel, Bin specific data</li> </ul>
2	<ul style="list-style-type: none"> <li>• Data delivery process</li> <li>• Core services of Data delivery in MDM</li> <li>• Billing issues and Troubleshooting</li> </ul>	<ul style="list-style-type: none"> <li>• DDS service walkthrough</li> <li>• Billing Processing Parameters</li> <li>• Creating billing request for SDP with SR</li> </ul>
3	<ul style="list-style-type: none"> <li>• EDAM</li> <li>• Business Monitoring</li> <li>• Billing Readiness</li> <li>• UI Customization</li> <li>• Troubleshooting</li> </ul>	<ul style="list-style-type: none"> <li>• EDAM Configuration</li> <li>• walkthrough of Business Monitoring and Billing Readiness pages</li> <li>• New UI header color change</li> </ul>

# 1.3 MDM System Administration

## Objectives

The goal of the System Administration course is to provide basic knowledge of MDM Admin functions and ensure smooth operations.

This course is frequently customized to suit Utilities needs for content, duration, and MDM version. Please contact Training to discuss requirements and schedule this class.

## General Information

**Course Code** MDMSysAdmin

**Delivery Method** Blended vILT

**Duration** 12 Hours

**Language** English

## Target Audience

Roles: System Administrators, MDM Administrators

## Prerequisites

Students should be accomplished, experiences system administrators or DBAs

## Content

Major topics include:

- Product Overview
- Introduction - System Admin Role
- System Requirements and Security
- Performance Monitoring
- Performance Issues
- Starting and Stopping MDM
- Application Management
- User Management
- Adapters
- Exception Processing
- Timelines and Checklist

# 1.4 MDM Custom Application Development

## Objectives

Training goals:

- The goal of this training is to make you capable of developing application that can sit beside these applications or replace/ enhance the existing applications.
- This training will tell you the hooks for altering the existing behavior of MDM applications.
- Students are expected to already know the functional capabilities of EnergyIP as well as the needed software languages and tools.

This course is customized to suit Utility or Partner needs for content, duration, and MDM version. Please contact Training to discuss requirements and schedule this class.

The duration and schedule for this course is determined in consultation with the Partner or Customer that requests the training. Application Developer training is typically up to 2 weeks long and conducted virtually using a technology such as Teams.

## General Information

**Course Code** MDMAAppDev

**Delivery Method** Classroom, Remote, On-Site

**Duration** 80 Hours

**Language** English

## Target Audience

This course is designed as an introduction to Gridscale X [PRODUCT NAME].

Roles: Managers, Supervisors, System Administrators, Software Engineers, Programmer/Analysts/DBA, Operations

## Prerequisites

All students must meet the pre-requisites listed below prior to attending the course.

1. MDM EnergyIP Certification Course or equivalent job experience
2. Hands on knowledge of Java, SQL, Unix and J2EE Technologies
3. Basic understanding of BIRT reporting (specific to report development)

## Content

- ★ This table serves as the starting point for content discussion. Course content will be finalized in consultation with the Partner / Customer.

Topic	Rationale
Structural Data Synchronization – Custom Flex Sync Rules Action	Database Synchronization is a fundamental and critical module of EnergyIP. Commonly known as FlexSync, this module ensures that asset data in the utility's system of record matches the asset data in EnergyIP's EIP database.
Deliver Billing Determinants – Custom DDS Measurements	Data Delivery is used to export or send meter reads or billing determinants to external systems like utility CIS, Settlements, and so on.



Topic	Rationale
Data Collection Validation, Estimation – VEE	Data Collection is used to process both register and interval raw meter data for registers and events and store it for access by the utility or applications.
Service Remote Device Control Work Orders – Activity Gateway	EnergyIP Activity Gateway interface routes work orders such as Meter Investigation and Pick Up Read requests to external work management systems and co-ordinates their completion.
Provisioning and Commissioning – Workflows	Provisioning is the process that recognizes when an AMI meter has been installed, removed, or has experienced configuration changes. It is used to verify the reliability of meter to consistently provide meter reads.
Data Analysis Monitoring, Reporting – BIRT Reports	EnergyIP supports execution of BIRT Reports to extract reports about metering asset and meter data. Birt is a third-party tool for data visualization.
Database Schema Customization – Database Schema	EnergyIP schema can be customized to work with customer specific data.
Add new application to work with Data	Apart from extending the existing EnergyIP applications some custom applications can also be added to EnergyIP platform to perform a custom functionality that is not possible with the existing out-of-the-box EnergyIP installation.

# 1.5 Foundations for End Users

## Objectives

Foundations for End Users is an instructor-led course intended for Utility administrators and managers participating in the implementation workshop process.

The course is designed with opportunities for demonstrations and may include hands-on labs for students to complete. Access to systems for demos and labs must be provided by the site or host of the training, typically on a DEV or TEST system, though can be provided by Training for an additional cost and with time required for configuration.

This course is customized to suit Utilities needs for content, duration, and MDM version. Please contact Training to discuss requirements and schedule this class.

## General Information

Course Code	MDMFound
Delivery Method	Classroom, Remote, On-Site
Duration	8 Hours
Language	English

## Target Audience

Utility administrators and business managers participating in the implementation workshop process.

Roles: MDM Administrator, managers, Supervisors, System Administrators

## Prerequisites

- None

## Content

The class provides core MDM concepts, including:

- Smart Grids and Meter Data Management
- The EnergyIP Solution
- High Level Overview of EnergyIP components.
- Data Synchronization
- Data Collection
- Data Delivery and Billing
- Configuration Tools
- Reporting
- High Level Overview - Other Apps

# 1.6 Foundations for Implementation Teams

## Objectives

Foundations for Implementation Teams is an instructor-led course intended for Utility administrators and managers participating in the implementation workshop process. The course has the same topics as Foundations for End Users but with more detail, and customized for each utility.

The course is designed with opportunities for demonstrations and may include hands-on labs for students to complete. Access to systems for demos and labs must be provided by the site or host of the training, typically on a DEV or TEST system, though can be provided by Training for an additional cost and with time required for configuration.

This course is customized to suit Utilities needs for content, duration, and MDM version. Please contact Training to discuss requirements and schedule this class.

## General Information

<b>Course Code</b>	MDMFoundTeam
<b>Delivery Method</b>	Classroom, Remote, On-Site
<b>Duration</b>	24 Hours
<b>Language</b>	English

## Target Audience

Utility administrators and business managers participating in the implementation workshop process.  
Roles: MDM Administrator, managers, Supervisors, System Administrators

## Prerequisites

- None

## Content

The class provides core MDM concepts, including:

- Smart Grids and Meter Data Management
- The EnergyIP Solution
- High Level Overview of EnergyIP components.
- Data Synchronization
- Data Collection
- Data Delivery and Billing
- Configuration Tools
- Reporting
- High Level Overview - Other Apps

# 1.7 Billing for Customer Service Representatives

## Objectives

This course is designed for Utility Billing customer service representatives who need to use MDM meter data management.

The course provides:

- overview of the billing process and functionality
- Logging in, basic navigation, and search
- Reviewing meter data
- Validation, validation errors and verify/edit service requests
- Editing meter data
- Analyze and resolved billing exceptions
- Cancel single and multiple months
- Device control transaction

This course is **ALWAYS** customized to suit Utilities needs for content, duration, and MDM version. Please contact Training to discuss requirements and schedule this class.

## General Information

<b>Course Code</b>	MDMBilling
--------------------	------------

<b>Delivery Method</b>	Classroom, Remote, On-Site
------------------------	----------------------------

<b>Duration</b>	8 Hours
-----------------	---------

<b>Language</b>	English
-----------------	---------

## Target Audience

Roles: Supervisors, customer service representatives

## Prerequisites

Familiarity with the utility customer information system and billing procedures.

## Content

As mentioned above, the course provides:

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>• Overview of the billing process and functionality</li><li>• Logging in, basic navigation, and search</li><li>• Reviewing meter data</li><li>• Validation, validation errors and verify/edit service requests</li></ul> | <ul style="list-style-type: none"><li>• Editing meter data</li><li>• Analyze and resolved billing exceptions</li><li>• Cancel single and multiple months</li><li>• Device control transaction</li></ul> |
|--|---|

# 1.8 Validation Analyst Training

## Objectives

This course is designed for Utility validation analysts who need to use MDM meter data management.

The course includes:

- Describe how validation workflow works
- Understand the role of Device Reads Processor in the validation process.
- Understand validation
- Understand estimation
- Understand the framing
- Understand and Use MDM Graphical Editing Features
- Use MDM to complete core validation-related tasks

This course is **ALWAYS** customized to suit Utilities needs for content, duration, and MDM version. Please contact Training to discuss requirements and schedule this class.

## General Information

Course Code	MDMVEE
Delivery Method	Classroom, Remote, On-Site
Duration	8 Hours
Language	English

## Target Audience

Roles: Supervisors, customer service representatives

## Prerequisites

Familiarity with the utility customer information system and billing procedures.

## Content

As mentioned above, the course provides:

- Describe how validation workflow works
- Understand the role of Device Reads Processor in the validation process.
- Understand validation
- Understand estimation
- Understand the framing
- Understand and Use MDM Graphical Editing Features
- Use MDM to complete core validation-related tasks

## **2. Gridscale X™ Meter Data Management On Demand Courses**

The following index includes the title, name, and description for each course, organized by content area.

## 2.1 Advanced Device Management (ADM)

<b>Advanced Device Management Product Overview</b>  Self paced ADMintro	30 Minutes	Smart Grid devices with communication capabilities are proliferating on the distribution network increasing the number of devices that need to be managed by two or three times the number of meters. The Advanced Device Management (ADM) application automates many of the previously tedious manual tasks required to maintain operational stability. ADM fills gaps in the headend systems by performing automated communications network management, device provisioning, device configuration, and device topology. It is designed as the system of record for all device knowledge available through the communications network.
--	------------	---

## 2.2 Analytics Foundation and Revenue Protection (AF&RP)

<b>Analytics Foundation 5.0 and Revenue Protection 4.0 Knowledge Transfer</b>  Self paced AF5_RP4_KT	1.5 Hours	Learn about what's new in Analytics Foundation 5.0 and Revenue Protection 4.0 from Seitaro Nagao, Product Manager.
<b>Analytics Foundation 3.4 REST API Usage</b>  Micro class An34Rest	16 Minutes	Demonstration of Analytics Foundation 3.4 REST API usage. Presented by Seitaro Nagao, Product Manager.  Demo of REST API client examples: <ul style="list-style-type: none"> <li>• Web browser</li> <li>• CURL command</li> <li>• Postman</li> <li>• Java code</li> <li>• C# Windows Form application</li> <li>• Excel VBA Macro</li> </ul>

<b>Analytics Suite and Analytics Foundation</b>  Self paced AnFound	30 Minutes	<p>This product introduction course provides an overview of the Analytics Suite and Foundation (vers. 3-4.0/4.1).</p> <p>Analytics Suite is a solution that encompasses Analytics Foundation with add-on applications for specific uses cases such as Load Forecasting, Equipment Load Management, Power Quality, and Revenue Protection.</p> <p>Analytics Foundation enables utilities to gain insight into customers and their usage patterns, and the infrastructure that provides this information. The MDM has collected and processed meter data for many years, but with the addition of the Analytics Foundation, that data can be leveraged to generate insightful charts and graphs, drill into diagnostic reports, and feed Enterprise Business Intelligence applications. The Analytics Foundation uses data extract, transform, and load (ETL) tools to pull data from the MDM and creates a purpose-built analytics database.</p>
<b>Knowledge Transfer - Data Extraction Tool (DET) 2.1, Analytics Foundation 5.1</b>  Self paced KT_AF-5.1_DET-2.1	1 Hour	<p>This KT provides a product update for DET 2.1 and AF 5.1 SP2 and includes demonstrations. Session recorded February 16, 2022.</p> <p>Presenter - Seitaro Nagao, Product Manager.</p>
<b>Let's Play with Analytics Foundation 3.4</b>  Self paced An34play	45 Minutes	<p>Demo and examples of Analytics Foundation 3.4, Data Load to Visualization. Presented by Seitaro Nagao, Product Manager.</p> <ul style="list-style-type: none"> <li>• Demonstration includes a walkthrough of these steps:</li> <li>• Loading structural data to create service points</li> <li>• Loading time series data</li> <li>• Configuring aggregation</li> <li>• Running aggregation</li> <li>• Creating and configuring chart</li> <li>• Showing data with chart</li> </ul>
<b>Revenue Protection 2.4 - Installation and Configuration</b>  Self paced RevPro24Confiig	45 Minutes	<p>Installation and Configuration for Revenue Protection 2.4. Presented by Siemens Engineering. Major topics include:</p> <ul style="list-style-type: none"> <li>• Installation</li> <li>• Configuring Reference Data</li> <li>• Configuring System Console Properties</li> <li>• Configuring Job Properties</li> </ul>



<b>Revenue Protection 2.4 - Product Overview</b>  Self paced RevPro24Ovr	30 Minutes	Revenue Protection Analytics is an application that uses analytics technology to increase the detection and reduction of non-technical losses.  January 2018 - updated with new video demo of the Revenue Protection UI
<b>Revenue Protection 2.4 - What's New</b>  Self paced RevPro24Delta	20 Minutes	Overview of the new and changed features in Revenue Protection 2.4. Presented by Vidya Raman, Siemens Product Management.
<b>Revenue Protection 2.5 - Installation and Configuration</b>  Self paced RevPro-25_Config	1 Hour	This video discusses installation and configuration options and considerations for Revenue Protection 2.5.
<b>Revenue Protection 2.5 - Product Overview</b>  Self paced RevPro25Ovr	30 Minutes	Revenue Protection Analytics is an application that uses analytics technology to increase the detection and reduction of non-technical losses.  Updated February 2019.
<b>Revenue Protection 3.1/3.2 Knowledge Transfer Session</b>  Self paced RevPro31KT	2 Hours	Recorded May 2020. Presented by Patricia Seifert, PhD., Analytics Product Manager. This knowledge transfer session includes a brief release overview and introduction to new features and enhancements made to Revenue Protection 3.1/3.2 including: over 30 new algorithms have been introduced to identify non-technical losses of different types, new KPI Dashboard with mapping provides useful insights into the status of investigation tickets and their outcomes, new ML Scorer Accuracy Evaluation for self-selection of the most effective scorer for ticket generation.

## 2.3 Billing Readiness

Billing Readiness  Self paced Billing_Readiness_WBT_1.0	30 Minutes	This web-based course provides an overview of Billing Readiness, which provides visibility and status information on billing progress and issues and enables users to take corrective actions to ensure successful billing. You will learn how Billing Readiness can be used by billing analyst and system administrator roles. System administrators can also learn how to configure and enable Billing Readiness functionality in both Platform Administration and Mosaic UI.
--	------------	---

## 2.4 Business Monitoring (BizMon)

<b>Introduction to Business Monitoring &amp; Billing Readiness</b>  Self paced Intro_BizMon	60 Minutes	Business Monitoring provides operational transparency to the MDM operators and enables them to prioritize error handling and business exception processing. This video introduces you to Business Monitoring features including dashboards and out-of-the-box reports to monitor data collection and data quality metrics and analyze service point usage data anomalies.
<b>Business Monitoring</b>  Self paced BizMon_EnergyIP9	30 Minutes	This web-based training (WBT) course provides an overview of Business Monitoring functions. Topics include BizMon functions, benefits and typical user roles and responsibilities. Learners will be shown how to use Business Monitoring Dashboard to monitor data quality and usage data, and will learn how to configure and enable Business Monitoring

## 2.5 Business User (E9xBizUser)

<b>EnergyIP Billing and VEE Task Tool</b>  Self paced BVTool	N/A	The Billing and VEE Task Tool is designed to help customers who work with EnergyIP® as a billing or VEE analyst. The tool is designed to provide just in time information and procedures on common tasks.
---	-----	---

<b>Gridscale X Meter Data Management Day in the Life Series</b>  Self paced DITL_Series	20 min	Short video introductions that show how analysts and operators can use MDM SaaS to work on daily tasks and activities.
<b>Meter Data Edit Task Tool</b>  Self paced MDETool	N/A	The Meter Data Edit Task Tool is designed to help customers who work with the MDM as a billing or VEE analyst. The tool is designed to provide just-in-time information and procedures for common tasks.

## 2.6 Event and Data Action Manager (EDAM)

<b>EDAM - Using Detection Rules</b>  Self paced EDAM_Using	15 Minutes	The Event and Data Action Management (EDAM) functionality analyzes incoming AMI meter events received in near real-time or the events and interval reads stored in MUDR based for configured conditions and performs a preconfigured action automatically when the condition is detected. In this course you will learn how detection rules are used, and you will learn how to create detection rules for two events - voltage sag, and false positive events. Note: you can only access the EDAM functionality from the new Mosaic user interface, available starting with EnergyIP 8.7 SP2 and later.
<b>Introduction to EDAM and Business Monitoring</b>  Self paced Intro_EDAM-BusMon	30 Minutes	This introductory course provides a basic overview of EDAM features and Business Monitoring.

## 2.7 EnergyIP 8x

<b>Cassandra Considerations for EnergyIP</b>  Self paced Cass4EIP86	59 Minutes	In this video Shelly Antony, Director of Application Development reviews the purpose of Cassandra in EnergyIP - to provide new installations the option of storing the time-series data in MUDR on the Apache Cassandra database, and best practices for configuring and managing it.
<b>EnergyIP 7.6 - 8.1 Delta</b>  Self paced EIP8Delta	20 Minutes	This web-based training explores the delta between EnergyIP 7.6 and EnergyIP 8. Each topic focuses on what's new and what's changed in each module.
<b>EnergyIP 8 - Custom Application Development</b>  Instructor EIPAppDevJune	10 Days	Training goals: <ul style="list-style-type: none"> <li>The goal of this training is to make you capable of developing application that can sit besides these applications or replace/enhance the existing applications.</li> <li>This training will tell you the hooks for altering the existing behavior of EnergyIP applications.</li> </ul>
<b>EnergyIP 8 - Introduction and Overview</b>  Self paced EIP8IntroWBT	30 Minutes	This web-based training introduces the EnergyIP 8 features and functionality. The topics included are: <ul style="list-style-type: none"> <li>EnergyIP 8 overview</li> <li>Core functionality</li> <li>Smart grid application suite</li> <li>High-level data model</li> <li>Security architecture overview</li> </ul>
<b>EnergyIP 8 A2F Architecture</b>  Self paced EIP8A2F	10 Minutes	This web-based training explores the Agile Application Framework (A2F) used in EnergyIP 8. The topics included are: <ul style="list-style-type: none"> <li>Message Bus and A2F</li> <li>A2F Processing Model</li> <li>Service Invocation Patterns</li> <li>Routing Approach</li> </ul>
<b>EnergyIP 8 Data Collection</b>  Self paced CoreDC	1 Hour 15 Minutes	Shelly Antony, Director of Application Development, provides an in-depth discussion of EnergyIP 8 enablement for Meter Reads and Event Processing. The topics included in this video include technical briefings on key differences between EnergyIP 7.x and 8.x. Shelly also discusses the overview and architecture of Meter Reads and Meter Events, including a detailed account of the components and configurations required to make VEE applications work. Various scenarios of Reads and VEE subsystem are also explained towards the end of the video.

<b>EnergyIP 8 Data Delivery</b>  Self paced CoreDDS	60 Minutes	Shelly Antony, Director of Application Development, provides an in-depth discussion of EnergyIP Data Delivery Services, which represents the delivery of metering data to an external system. The topics included in this video include an overview and architecture of DDS, key DDS differences from EnergyIP 7.x and 8.x., and an in-depth discussion of DDS components and configuration.
<b>EnergyIP 8 Data Migration</b>  Self paced EIP82Migrate	27 Minutes	Ling Chien-Sha, Director of Engineering, walks through the process of migrating data to EnergyIP 8. In this video, Ling outlines the high-level approach to data migration, including database preparation. She then dives into the technical details and procedures for data migration and configuration for structural and transactional data. The video concludes with a short case study of a data migration project.
<b>EnergyIP 8 Data Synchronization</b>  Self paced CoreSync	2 Hours	Chris Dant, Technical Training Manager for Siemens, discusses EnergyIP synchronization and how data flows from customer information systems to EnergyIP. He then reviews the configuration properties and examines FlexSync. Next, he shows how to create rules and use rule sheets for synchronizing your data. Finally, he discusses core derive actions and effective dates and explains the rules processing context and data objects that enable synchronization.
<b>EnergyIP 8 In-Memory Data Grid</b>  Self paced EIP8eidg	10 Minutes	This introductory web-based training explores EnergyIP 8 In Memory Data Grid (EIDG). The EIDG topics included are: <ul style="list-style-type: none"> <li>• Overview of EIDG</li> <li>• EIDG Functionality</li> <li>• EIDG Reliability</li> <li>• EIDG Variations</li> </ul>
<b>EnergyIP 8 Security Framework</b>  Self paced EIP8Secr	10 Minutes	This course explores the EnergyIP 8 Security Framework. The topics included are: <ul style="list-style-type: none"> <li>• Security Features</li> <li>• Security Architecture</li> <li>• Security methods</li> <li>• Organization-based approach</li> </ul>
<b>EnergyIP 8 Webinar Series</b>  Self paced EIP8Webs	30 Minutes to 8 Hours	This EnergyIP 8 webinar package includes technical presentations from eMeter product management and engineering experts. These technical webinars provide detailed information about the most important new and changed features of EnergyIP 8. To get the most out of these presentations, you should be familiar with EnergyIP 7.
<b>EnergyIP 8.2 User Interface Changes</b>  Self paced EIP82Uivid	1 Hour 22 Minutes	In this recorded session, the new user interface changes in EnergyIP 8.2 are discussed and shown.

<b>EnergyIP 8.4 Installation Walk-Through (also for 8.5)</b>  Self paced EIP85install	1 Hour	<p>The basics of installing EnergyIP 8.4 are covered in this series of videos prepared by Thaddeus Jimenez, Technical Director in eMeter Engineering. The process he covers results in a single-server installation which combines EnergyIP 8.4 and Oracle Enterprise in a convenient system suitable for development, tests, learning / experimentation, and demonstrations. This single-server configuration would not be suitable for use in production, but the design and configuration considerations covered in the walk-through are integral to any EnergyIP 8.4 installation. Note that steps covered in this video also applies to an installation of EnergyIP 8.5.</p>
<b>EnergyIP 8.5 Release Overview</b>  Self paced EIP85_KT	60 Minutes	<p>The EnergyIP 8.5 release includes many new capabilities on the EnergyIP user interface and also enhancements and improvements to enhance user experience and improve operational task efficiency. EnergyIP product experts discuss and demonstrate these new features in this Knowledge Transfer session.</p>
<b>EnergyIP 8.6 - What's New in SP4</b>  Self paced ENERGYIP86_SP4_KT	1 Hour	<p>Amit Prakaash, Product Manager, provides an update on new features introduced with the SP4 release of EnergyIP 8.6.</p>
<b>EnergyIP 8.6 SP4 Knowledge Transfer</b>  Self paced ENERGYIP86_SP4_KT	1 Hour	<p>Amit Prakaash, Product Manager, provides an update on new features introduced with the SP4 release of EnergyIP 8.6.</p>
<b>EnergyIP 8.6 SP6 Knowledge Transfer</b>  Self paced ENERGYIP86_SP6_KT	1 Hour	<p>Gautham Jayanna and Amit Prakaash, EnergyIP Product Managers, provides an update on new features introduced with the SP6 release of EnergyIP 8.6. The agenda includes:</p> <ul style="list-style-type: none"> <li>• Brief release overview, introduction</li> <li>• Device Reads Processor now can compute interval reads from register reads. RR to LP conversion</li> <li>• Implementation of RR2LP/SDP batching during DRP processing</li> </ul> <p>Recorded April 9, 2020</p>

<b>EnergyIP 8.6 SP7 and EnergyIP 8.7 MDM Release KT</b>  Self paced EIP86SP7_EIP87_KT	4 Hours	This knowledge transfer session is to cover MDM-related changes and enhancements that were released in EnergyIP 8.6 SP7 and EnergyIP 8.7. Part 1 is on new changes and enhancements in EnergyIP 8.6 SP7 and EnergyIP 8.7, presented by Amit Prakaash, Product Manager. Part 2 is on the new enhancements and updates to EnergyIP 8.7 Platform, presented by Gautham Jayanna, Product Manager.
<b>EnergyIP 8.7 SP1 Knowledge Transfer Series</b>  Self paced EIP87SP1-KT	6 Hours	Edited recordings from the EnergyIP 8.7 SP1 Knowledge Transfer sessions which took place March-April, 2021. Session dates and presenters listed below.
<b>EnergyIP 8.7 SP2 Knowledge Transfer Series</b>  Self paced EIP87SP2-KT	4 Hours	Edited recordings from the EnergyIP 8.7 SP2 Knowledge Transfer sessions from August 2021. Session dates and presenters listed below.
<b>EnergyIP 8.x App Installation</b>  Self paced EIPAppInstall	13 Minutes	Video showing installing an OPT app for the EnergyIP 8.x platform. This video is narrated by Thad Jimenez, Director of Engineering.
<b>EnergyIP Data Migration 1.5</b>  Self paced EIP_Data_Migration_1.5	25 Minutes	Knowledge Transfer Session Recorded March 15, 2019 Topics <ul style="list-style-type: none"> <li>Product Overview - 1:56</li> <li>What's New - 4:37</li> <li>Best Practices - 16:15</li> </ul> Presenters: Ankit Jain, Manas Yadav
<b>EnergyIP Upgrade from Version 8.3 to 8.4 (or 8.5)</b>  Self paced EIPUPGR83-84	47 Minutes	The basics of upgrading EnergyIP are covered in these two videos prepared by Thaddeus Jimenez, Technical Director in eMeter Engineering. The particular example shown takes an 8.3 system to 8.4 (also applicable to 8.5). This single-server configuration would not be suitable for use in production, but the design and configuration considerations covered in the walk-through are integral to any EnergyIP 8.4 installation.

<b>Foundations for End Users - EnergyIP 8.6</b>  Instructor EIP86Found	1 Day	This one-day instructor-led course provide end users with a practical explanation of the EnergyIP platform and applications. This course also focuses on how meter data flows from AMI to billing
<b>Foundations for Implementation Teams - EnergyIP 8.6</b>  Instructor EIP86FoundTeam	3 Days	This three-day instructor-led course provide implementation team members with a practical explanation of the EnergyIP platform and applications. Details include <ul style="list-style-type: none"> <li>• Data Synchronization,</li> <li>• Data Collection,</li> <li>• Data Delivery and</li> <li>• Billing.</li> </ul>
<b>Introduction to EnergyIP 8.6 Platform</b>  Self paced Intro_EnergyIP_86	60 Minutes	This course will provide you with a basic understanding of the core fundamentals and technologies of EnergyIP 8.6 (course applies to EnergyIP versions 8.0 and above).  The course is designed for anyone new to the EnergyIP 8.x Platform. There are four parts to this course: <ul style="list-style-type: none"> <li>• Introduction and Overview to EnergyIP,</li> <li>• Synchronization,</li> <li>• Data Collection,</li> <li>• Data Delivery</li> </ul>
<b>Introduction to EnergyIP 8.7</b>  Self paced Intro_EnergyIP_87	60 Minutes	This course will provide you with a basic understanding of the core fundamentals and technologies of EnergyIP (course applicable to all versions of EnergyIP 8.x up to 8.7 SP2)  The course is designed for anyone new to the EnergyIP 8.x Platform. There are four parts to this course: <ul style="list-style-type: none"> <li>• Introduction and Overview to EnergyIP,</li> <li>• Synchronization,</li> <li>• Data Collection,</li> <li>• Data Delivery.</li> </ul> Also included is a tour of the new Mosaic user interface available with release SP2.
<b>QuickStart Essentials for EnergyIP 8.3</b>  Self paced QSEEIP83	60 Minutes	This course has been updated for EnergyIP 8.6, please see "Introduction to EnergyIP Platform".



<b>QuickStart Essentials for EnergyIP 8.4-8.5 MDM</b>  Self paced QSEEIP84	60 Minutes	This course has been updated for EnergyIP 8.6, please see "Introduction to EnergyIP Platform".
<b>System Administration - EnergyIP 8.6</b>  Instructor SysAdmin	3 Days	The System Administration course provides basic knowledge of EnergyIP System Admin functions and ensure smooth operations.
<b>Technical Certification - EnergyIP 9.0 (2024)</b>  Instructor EIP90Cert2024	4 Weeks	The EnergyIP 9.0 Certification Program is a hybrid training course and includes on-line, instructor-led and self paced learning. You will attend eight, three hour virtual instructor-led sessions that meet twice a week. You will also complete assignments on your own and with your study group. Assignments will require extensive practice and exercises in the Training Cloud via each student's own sign-on to a supplied EnergyIP Org. At the end of the month, you will take the certification exam that enables you to implement EnergyIP. This title is an instructor-led training course and not accessible through the cloud. Contact us to learn more and enroll in this class.

## 2.8 EnergyIP 9.0

Note: nearly all titles related to EnergyIP 9.0 are also relevant to MDM 9.1.

<b>DEMO: Introduction to EnergyIP 9 (Portuguese)</b>  Self paced Intro_EnergyIP_9.0_PT	30 min	This course will provide you with a basic understanding of the core fundamentals and technologies of EnergyIP and is designed for anyone new to the EnergyIP 9.x Platform. This customized version of the course features our customized translation service and offers the user a choice to listen to the audio narration in English or Portuguese. The screen text and graphics are in English, but users can select between English and Portuguese for the audio narration before starting the course. The selected language will then be heard throughout the entire course.
<b>EnergyIP 9.0 Knowledge Transfer Series</b>  Self paced EIP9.0_KT_S1	175 Minutes	Edited recordings from the EnergyIP 9.0 Knowledge Transfer sessions delivered December 2021. Session 1 topics include EnergyIP 9.0 overview, new platform features, EDAM update, and UI changes. Session 2 topics focused on Mosaic UI changes. Sessions have been edited for brevity.

<b>EnergyIP 9.0 SP1 Knowledge Transfer Series</b>  Self paced EIP9.0-SP1_KT	60 Minutes	Edited recordings from the EnergyIP 9.0 SP1 Knowledge Transfer sessions delivered April 2022. Session 1 topics include EnergyIP 9.0 SP1 overview, new platform features, EDAM update. Session 2 is on Mosaic UI changes. Sessions have been edited for brevity.
<b>EnergyIP 9.0 SP2 Knowledge Transfer Series</b>  Self paced EIP9.0-SP2_KT	120 Minutes	Edited recordings from the EnergyIP 9.0 SP2 Knowledge Transfer sessions delivered August 2022. Session 1 topics include EnergyIP 9.0 SP2 overview, new core platform features, Billing and Business Monitoring, and EDAM update. Session 2 is on Mosaic Functional UI enhancements. KT presentations delivered by EnergyIP Product Management and UX Team.
<b>EnergyIP 9.0 SP3 Knowledge Transfer Series</b>  Self paced EIP9.0-SP3_KT	120 Minutes	Edited recordings from the EnergyIP 9.0 SP3 Knowledge Transfer sessions delivered December 2022. Session 1 topics include EnergyIP 9.0 SP3 overview, new core platform features, Billing and Business Monitoring, and EDAM update. Session 2 is on Mosaic Functional UI enhancements. KT presentations delivered by EnergyIP Product Management and UX Team.
<b>EnergyIP 9.0 SP4 Knowledge Transfer Series</b>  Self paced EIP9.0-SP4_KT	3 Hours	Edited recordings from the EnergyIP 9.0 SP4 Knowledge Transfer sessions delivered April 2023. Session 1 topics include new core platform features, Billing and Business Monitoring, and EDAM update. Session 2 is on Mosaic Functional UI enhancements. KT presentations delivered by EnergyIP Product Management and UX Team.
<b>EnergyIP 9.0 SP5 Knowledge Transfer Series</b>  Self paced EIP9.0-SP5_KT	3.5 Hours	Edited recordings from the EnergyIP 9.0 SP5 Knowledge Transfer sessions delivered August 2023. Session 1 topics include UI and UX Functional updates. Topics discussed and demoed: Environment Branding in 9.x (Login page, and UI header), MDE Enhancements, Customer Enhancement Requests, and EM-UI Equivalence. Session 2 focusses on MDM Core Platform updates in addition to enhancements to DDS, Business Monitoring, and EDAM.
<b>EnergyIP Data Collection</b>  Self paced CoreDC	1 Hour 15 Minutes	Shelly Antony, Director of Application Development, provides an in-depth discussion of EnergyIP 8 enablement for Meter Reads and Event Processing. The topics included in this video include technical briefings on key differences between EnergyIP 7.x and 8.x. Shelly also discusses the overview and architecture of Meter Reads and Meter Events, including a detailed account of the components and configurations required to make VEE applications work. Various scenarios of Reads and VEE subsystem are also explained towards the end of the video.

<b>EnergyIP Data Delivery</b>  Self paced CoreDDS	60 Minutes	Shelly Antony, Director of Application Development, provides an in-depth discussion of EnergyIP Data Delivery Services, which represents the delivery of metering data to an external system. The topics included in this video include an overview and architecture of DDS, key DDS differences from EnergyIP 7.x and 8.x., and an in-depth discussion of DDS components and configuration.
<b>EnergyIP Data Synchronization</b>  Self paced CoreSync	2 Hours	Chris Dant, Technical Training Manager for Siemens, discusses EnergyIP synchronization and how data flows from customer information systems to EnergyIP. He then reviews the configuration properties and examines FlexSync. Next, he shows how to create rules and use rule sheets for synchronizing your data. Finally, he discusses core derive actions and effective dates and explains the rules processing context and data objects that enable synchronization.
<b>EnergyIP Expert Series Webinars</b>  Self paced EIP-ES-Webinar-Sync	1 Hour	The EnergyIP Expert Series Webinars are live virtual events for customers focused on EnergyIP product features and technologies. This series launched in July 2020 and all recordings are posted here for the benefit of all Learning Cloud customers. Please check back every 2-3 months for the newest recordings. If you wish to be added to the email-list for future webinar invitations please send a message to SGAppsTraining.si@siemens.com
<b>EnergyIP Installation and Upgrade from Version 8.x to 8.6</b>  Self paced Upgrade-to-EIP86	1 Hour	The basics of installing and upgrading EnergyIP are covered in this video prepared by Thaddeus Jimenez, Technical Director in eMeter Engineering. The particular example shown takes an 8.5 system to 8.6. This single-server configuration would not be suitable for use in production, but the design and configuration considerations covered in the walk-through are integral to any EnergyIP 8.6 installation. Note that EnergyIP 8.6 supports a new data storage paradigm that permits the data in the MUDR schema to be stored on Cassandra technology. We do not provide an automated tool that upgrades an existing MUDR on Oracle to the MUDR on Cassandra configuration.
<b>EnergyIP Installation Walk-Through (8.x and 9)</b>  Self paced EIP8xInstall	1 Hour	The basics of installing EnergyIP are covered in this series of videos prepared by Thaddeus Jimenez, Technical Director in eMeter Engineering. The process he covers results in a single-server installation which combines EnergyIP and Oracle Enterprise in a convenient system suitable for development, tests, learning / experimentation, and demonstrations. This single-server configuration would not be suitable for use in production, but the design and configuration considerations covered in the walk-through are integral to any EnergyIP installation. Note that steps covered in this video apply to an installation of EnergyIP 8.x and 9.0.

<b>EnergyIP Platform: Device Control Transactions (DCT), Part 1</b>  Self paced EIP86_DCT-P1_v1.0	45 Minutes	In this course you will be introduced to the types of Device Control Transactions and learn to understand the different device control components. You will also learn the different ways in which DCT is executed within EnergyIP. The second part of the course will examine the use cases for DCT.
<b>EnergyIP Platform: Device Control Transactions (DCT), Part 2</b>  Self paced EIP86_DCT-P2_v1.0	6 Minutes	This is the second part of the course and will examine the use cases for DCT. In Part 1, you were introduced to the types of Device Control Transactions and the different device control components.
<b>EnergyIP System Administration Task Tool</b>  Self paced SATool	NA	<p>The System Administration Task Tool is designed to help EnergyIP platform and system administrators as they work with the system. The tool is intended to provide just-in-time information and procedures on common tasks. When launched, a pop-up window will appear and you may move this window to a second monitor if available so that while you work with EnergyIP you can have the tool open in separate browser window.</p> <p>The Task Tool also includes a comprehensive glossary and a full text searching function.</p>
<b>EnergyIP System Console</b>  Self paced EIP82SysCons	72 Minutes	<p>In this session, Saurabh Saxena and Pushpa Penukonda from the Platform Development Team will review new features and changed aspects of the EnergyIP 8.2 System Console. Topics covered and discussed in this video include:</p> <ul style="list-style-type: none"> <li>• Dynamic Log Management</li> <li>• Log Viewer</li> <li>• System information</li> <li>• Authorization in SystemConsole</li> <li>• Enhanced monitoring dashboard</li> </ul>
<b>Introduction to EnergyIP 9.0</b>  Self paced Intro_EnergyIP_9.0	60 Minutes	<p>This course will provide you with a basic understanding of the core fundamentals and technologies of EnergyIP and is designed for anyone new to the EnergyIP 9.x Platform. There are four parts to this course:</p> <ul style="list-style-type: none"> <li>• Introduction and Overview to EnergyIP,</li> <li>• Database Synchronization,</li> <li>• Data Collection,</li> <li>• Data Delivery and Reporting.</li> </ul> <p>Also included is a tour of the new Mosaic user interface in Module 1.</p>

<b>Introduction to EnergyIP System Administration</b>  Self paced SysAdminWBT	2 Hours	The EnergyIP System Administration topic includes tasks to administer the EnergyIP solution including information and procedures on how to administer both the EnergyIP User Interface and the EnergyIP Database. This course introduces you to System Administration functions in EnergyIP. Topics include System Console, User Management, Performance Monitoring and Controlling, Configuration and Setup.
<b>Introduction to Virtual Channels</b>  Self paced VirtChan-Ovr	30 Minutes	In this course you will be introduced to Virtual Channels (VC) which is the aggregation of interval data from different channels into a non-physical asset representation. That asset representation is used to support advanced billing requirements. Virtual Channel functionality supports Net Metering, Subtractive Metering, and Totalized Metering business scenarios.
<b>Kafka Considerations for EnergyIP</b>  Self paced Kafka4EIP86	24 Minutes	In this video Andrew Stefanick reviews the purpose of Kafka in EnergyIP, and considerations for managing and monitoring it.
<b>Kibana Visualization Tool - Installation and Configuration</b>  Self paced Kibana_demo	25 Minutes	Raymund Pimentel provides an overview of the installation and configuration steps, plus a software demonstration of Kibana, a visualization and reporting tool for Elasticsearch used in EnergyIP® Analytics Foundation.
<b>Real Time Framework (RTF) 2.0</b>  Self paced RTF2-OKT	45 Minutes	Elena Shur provides an overview of RTF, FEP, CDCI, and monitoring as it applies to EnergyIP.
<b>Reports Using BIRT</b>  Self paced EIPBIRT	2 Hours	This technical webinar is presented by a custom report expert. He focuses on reporting basics and then demonstrates how to create custom reports using BIRT.

## 2.9 Meter Data Management 9.1 (MDM)

Note: nearly all titles related to EnergyIP 9.0 are also relevant to MDM 9.1.

<b>Kafka Overview</b>  Self paced KafkaMDM	34 Minutes	Introduction to Using, Configuring, and Troubleshooting Kafka in Gridscale X MDM 9.1 and EnergyIP 9.0.  The topics include: <ul style="list-style-type: none"> <li>• Kafka overview</li> <li>• Kafka deployment configuration and sizing</li> <li>• Gridscale X MDM Kafka configuration</li> <li>• Kafka monitoring</li> <li>• Kafka troubleshooting</li> </ul>
<b>MDM 9.1 Knowledge Transfer Series</b>  Self paced EIP9.1-KT	4 Hours	Edited recordings from the MDM 9.1 Knowledge Transfer sessions delivered in August and September 2024. Sessions included EnergyIP Platform updates and User Interface functional updates.
<b>Quick Start Guide to the Mosaic New User Interface in EnergyIP 9 (SP6)</b>  Self paced QS_New-UI_v1	1 Hour	These short videos will help you get familiar with using the new UI in EnergyIP 9.0 (optionally available in EnergyIP 8.7). Use the information, videos and job aids in this course to get a feel for the major screens and basic operational tasks. Quick Start video screens based on EnergyIP 9.0 SP6.

## 2.10 Energy Solutions (ESolutions)

<b>A Rising Tide (Tidal Power)</b>  Self paced OceanDoc	10 Minutes	The UK has a technological lead in both the development and the operation of tidal power. The Narec renewable test center is now expanding its services for tidal applications. Siemens, together with its Marine Current Turbines subsidiary, is using this service for testing of its new power train. This article from Living Energy, May 2014.
--	------------	---

<b>Case Study: Energy Engage at Pepco/PowerCentsDC</b>  Self paced EEpepco	10 Minutes	An award-winning pilot validates fast implementation, dynamic pricing and web-based consumer engagement result in load reduction and high customer satisfaction.
<b>Case Study: EnergyIP at Burbank Water &amp; Power</b>  Self paced EIP8Burb	10 Minutes	Southern California public utility addresses current and future requirements with advanced meter data management system capabilities
<b>Case Study: Outage Management</b>  Self paced OutManDoc	10 Minutes	How three utilities are enhancing their ability to detect and respond to outages using EnergyIP®.
<b>Communities</b>  Self paced ITOTComm	3 Minutes	IT/OT Convergence Hosted by Chris King, Global Chief Regulatory Officer, these videos offer a glimpse at current integration projects combining technology and Smart Grids and discusses considerations for future integration projects. The videos highlight real-world projects underway in Salzburg, Austria, and features commentary by Michael Strebl, Managing Director of Salzburg Netz.
<b>DRMS at Wabash</b>  Self paced DRMSWab	10 Minutes	The case study covered in this document presents Wabash Valley Power Association's (WVPA's) decision and actions taken to implement a demand response management system (DRMS).
<b>Energy on Tap</b>  Self paced GasInsDoc	10 Minutes	A gas-insulated line (GIL) tunnel allows a beer producer to make optimal use of the construction site for its new Munich brewery. Paulaner's COO Stefan Lustig talks about beer, Bavarian lifestyle, and energy transmission. This article from Living Energy, May 2014.
<b>Energy Scenario 2050</b>  Self paced Energy2050	10 Minutes	This article discusses what the future of energy sources may look like in 2050, and features interviews with Robert Schlög and Michael Weinhold. Robert Schlög is head of the Fritz Haber Institute and founding director of the Max Planck Institute for Chemical Energy Conversion. Michael Weinhold is Chief Technology Officer of Siemens Energy and a member of the Siemens Sustainability Board.

<b>GDPR - General Data Protection Regulation</b>  Self paced GDPROver	8 min	<p>The General Data Protection Regulation (GDPR) is regulation that intends to strengthen and unify data protection for all individuals within the European Union (EU). GDPR is a regulation that requires businesses to protect the personal data and privacy of EU citizens for transactions that occur within EU member states. Companies that collect data on citizens in European Union (EU) countries will need to comply with strict new rules around protecting customer data by May 25.</p> <p>In this video you will learn more about GDPR and how MDM intends to be compliant with the rules mandated by this new regulation. The video is presented by Amit Prakaash, Product Manager at Siemens.</p>
<b>General Overview of Meter Data Management</b>  Self paced OverMDM_VEE	10 Minutes	<p>This video explains how MDM can identify and automatically resolve common data errors through the VEE (Validate, Estimate, and Edit) Process.</p>
<b>Green Button Standard</b>  Self paced GrnBtnVid	30 Minutes	<p>Chris King, Global Chief Regulatory Officer for Siemens Smart Grid, discusses the development, community adoption, and policy issues regarding the Green Button Standard. All electric users have meters that are used to measure how much energy they use. This metered data is used by energy service providers to calculate how much that energy will cost. Green Button is all about making that data available and secure to energy consumers.</p>
<b>IT-OT Solutions</b>  Self paced ITOTvid	5 Minutes	<p>In this video, Michael Strebl, Managing Director of Salzburg Netz GmbH discusses the successful implementation of SmartGrid projects between Siemens and energy utilities in Salzburg, Austria.</p>
<b>Nigeria: Land of Powerful Opportunities</b>  Self paced NigeriaDoc	10 Minutes	<p>After decades of neglect, Africa's most populous nation has started a revolution in its power sector. The country faces tremendous challenges, but even greater potentials, writes Chinedu Nebo, Nigeria's Minister of Power for Living Energy. Article from Living Energy, May 2014.</p>
<b>OT and IT Go Hand in Hand</b>  Self paced OTITDoc	10 Minutes	<p>Utilities today face complex grid management tasks. The new Siemens and Accenture joint venture OMNETRIC Group is there to help, offering integrated solutions based on the companies' expertise in information technology (IT) and operations technology (OT). This article from Living Energy, May 2014.</p>



<b>Power for Mining in Mexico</b>  Self paced PowMexDoc	10 Minutes	Grupo Mexico has developed the most innovative turnkey plant with the technological support of Siemens. It is the largest user-owned electric power plant in Latin America. La Caridad Power Plant will allow Grupo Mexico to cut costs in electricity by 40 percent and help the state of Sonora and the country by supplying power to the grid. This article from Living Energy, May 2014.
<b>Renewable Energy</b>  Self paced ITOTRenew	3 Minutes	In this video Chris King and Michael Strebl discuss the integration of renewable energies in to the grid - solar, wind, electricity. Also shown are video clips showing how renewable energy has been field tested and utilized in the town Kostendorf in Salzburg, where 50% of rooftops are equipped with solar panels, and 50% of the automobiles are electric cars.
<b>Smart Buildings</b>  Self paced ITOTBuild	3 Minutes	In this video Chris King discusses how buildings can act as a micro-grid and Michael Strebl demonstrates the development of a smartgrid ready apartment building in Salzburg, Austria.
<b>SmartGrid Living with John Cooper</b>  Self paced SGCoopDoc	10 Minutes	The following article is the second part of the Smart Grid Living Lab interview series. John Cooper is a nationally-recognized innovator in energy. Part 1 of the series can be found here: <a href="https://blogs.siemens.com/en/smart-grid-watch.entry.html/1268-siemens-living-lab-for-the-21st-century-grid.html">https://blogs.siemens.com/en/smart-grid-watch.entry.html/1268-siemens-living-lab-for-the-21st-century-grid.html</a>
<b>The Future of the Smart Grid</b>  Self paced ITOTFuture	3 Minutes	Chris King and Michael Strebl discuss the future roles and responsibilities of utilities acting as a transactional grid whereby energy is delivered and managed..
<b>Utility Industry Overview</b>  Self paced UtilOver	30 Minutes	This web-based training course provides an overview of the energy and utility industry through a combination of animated slides, videos, and interactive quizzes and activities.
<b>White Paper: The Emergence of Meter Data Management (MDM)</b>  Self paced EmergeDoc	10 Minutes	The Meter Data Management (MDM) industry has recently emerged as a key to smart grid rollout in North America. MDM offers the ability to manage, store and employ consumption data, a crucial element of operating the smart grid as well as creating the value-added services that lead to consumer efficiency and economic viability.

<b>Worldwide First: Warm Component Heat Reuse Concept</b>  Self paced FlexPdoc	10 Minutes	German plant operator Kraftwerke Mainz-Wiesbaden AG (KMW) is developing a steam reuse concept that will maintain the hot-start capability of its power plant at times when generation is not profitable, but a fast restart is desired. As part of numerous upgrades and updates to stay competitive, KMW says the steam reuse concept is a world first. This article from Living Energy, May 2014.
---	------------	---

## 2.11 Meter Data Management SaaS (MDM SaaS)

<b>Gridscale X Meter Data Management SaaS- Introduction and Overview</b>  Self paced EIP_SaaS_Intro	1 Hour	This course provides an overview of Gridscale X Meter Data Management SaaS and is divided into four modules. The first module provides a general introduction to the system- what it does and how it works, including a tour of the new user interface. The other three modules are optional and provide an in-depth technical presentation on how the system works behind the scenes. Topics include Database Synchronization, Data Collection, and Data Delivery.
<b>Gridscale X Meter Data Management SaaS Foundations Course</b>  Instructor EIP86Found	1 Day	This one-day instructor-led course provides end users with a practical explanation of the MDM platform and applications. This course also focuses on how meter data flows from AMI to billing. This is not a self-paced course, advanced registration and enrollment fee is required.
<b>File Exchange Guide and Procedures</b>  Self paced File_Exchange_v1.0.1	45 Minutes	Tutorial on loading data into EnergyIP and preparing data for billing.
<b>MDM SaaS Quick Start</b>  Self paced SaaS_QS_1.7	120 Minutes	Use the information, videos and job aids in this title along with your MDM SaaS system to increase your knowledge of the platform as well as increase your skills on billing and VEE tasks.

## 2.12 Market Transaction Manager (MTM)

<b>Market Transaction Manager 1.0 Product Overview</b>  Self paced MTM1	45 Minutes	<p>The Market Transaction Manager (MTM) application is an add-on application for the EnergyIP platform. MTM is designed to manage aggregation, change tracking, and deliver meter reads data to enable settlement transactions. With the MTM application, you can provide access of meter reads data and aggregated usage data to the market participants, analyze grid loss data, and process exceptions.</p> <p>In this product introduction video you will be introduced to MTM features and benefits, explore use cases, and learn about the product architecture and data flow.</p>
--	------------	--

## 2.13 New UI

<b>Quick Start Guide to Mosaic UI in EnergyIP 9.0 (SP3)</b>  Self paced QS_New-UI_vEIP9.0_SP3	1 Hour	<p>These short videos will help you get familiar with using the new UI in EnergyIP 9 (optionally available in EnergyIP 8.7). Use the information, videos and job aids in this course to get a feel for the major screens and basic operational tasks.</p>
<b>Quick Start Guide to the Mosaic New User Interface in EnergyIP 9 (SP6)</b>  Self paced QS_New-UI_v1	1 Hour	<p>These short videos will help you get familiar with using the new UI in EnergyIP 9.0 (optionally available in EnergyIP 8.7). Use the information, videos and job aids in this course to get a feel for the major screens and basic operational tasks. Quick Start video screens based on EnergyIP 9.0 SP6.</p>

## 2.14 Outage Event Management (OEM)

---

<b>Outage Event Management (OEM) 2.2 &amp; Low-Voltage OMS (LVOMS) Product Introduction Video</b>  Self paced OEM-LVOMS_1	60 Minutes	<p>The Outage Event Management module to process power outage and power restoration events sent from the meter. The Outage Event Management subscribes to outage and restoration events, filters the events based on configurable parameters, and passes the validated notification to the utility's OMS.</p> <p>Additionally, Outage Event Management allows the MDM to receive power verification requests from an OMS, process the response from the AMI system, and provide a response to an OMS with the status of a meter.</p>
<b>Outage Event Management (OEM) 3.0 and LVOMS 2.0 Product Overview</b>  Self paced OEM-LVOMS_23	60 Minutes	<p>Product Introduction and Overview to Outage Event Management (OEM) and Low Voltage Outage Management System (LVOMS). Seitaro Nagao, Product Manager, presents a market overview and discusses the features, benefits, and use cases of OEM and LVOMS. This video includes a demonstration of the products and includes some Q&amp;A questions from the recorded session.</p> <p>Note: the training video was originally recorded for OEM 2.3/LVOMS 1.1, but all content is still applicable to versions OEM 3.0 and LVOMS 2.0 which have been updated for compatibility with EnergyIP 8.6.</p>

## 2.15 EnergyIP Prepay Application Demonstration

<b>EnergyIP Prepay Application Demonstration</b>  Self paced Prepay Demo	15 Minutes	<p>EnergyIP Prepay is an end-to-end solution that offers everything from connecting to the smart meter infrastructure, rating, and charging, up to the mobile payment system as one comprehensive package. It features flexible tariff management as well as intelligent energy consumption control features.</p> <p>Customers can easily access all their account information and the statistics of their consumption via mobile applications or Web Portal – giving them full control of their energy budget. This allows customers to also use this app on a smart phone or tablet to pay exactly the amount they intend to pay. Additionally, they can use automatic recharging programs to avoid becoming disconnected.</p>
---	------------	--

## 2.16 EnergyIP Prepay Overview

<b>EnergyIP Prepay Overview</b>  Self paced Prepay_Overview_2023-12	30 Minutes	EnergyIP Prepay is a pre-paid solution utilizing the idea of the central wallet at its core. This pay-as-you-go application is powered by an energy rating engine that interfaces with head-end and meter data management systems. You can add meters and tariff models to individual wallets, integrate other utilities, and accommodate the influx of prosumers. This presentation is an edited recording of a presentation given by Martin Stur, Product Manager.
--	------------	--

## 2.17 SAP Adapter

<b>Introduction to SAP Adapter Implementation</b>  Self paced Intro_SAP_Imp	3 Hours	This course is structured to follow the typical stages of an SAP Adapter implementation project. Note: the first two modules are available now, the others are currently in development and will be released individually when complete. All enrolled students will be notified when new modules are posted.
<b>SAP Adapter 4</b>  Self paced SAPAD4	6 Minutes	This video introduces you to the new features and benefits of the SAP Adapter 4. Listen to YanPei Chao, Senior Product Manager, discuss how the SAP Adapter helps reduce the complex integration of SAP ISU and MDM for businesses.
<b>SAP Adapter 4.4 Product Introduction</b>  Self paced SAP44	30 Minutes	<p>This product introduction course to SAP Adapter 4.4 provides an overview of the product features and benefits, market overview, use cases and data flow.</p> <p>SAP adapter is the integration package that implements the standardized interfaces between MDM and SAP ISU. Supported by both Siemens and SAP, the SAP adapter productizes the most commonly used web services and integration interfaces. This adapter reduces complexity and cost of the integration project between the platforms.</p>
<b>SAP Adapter 4.6 Release Knowledge Transfer</b>  Self paced SAP46KTvid	27 Minutes	Shishir Singh, Product Manager for the SAP Adapter, introduces the new features and functionality of the and reviews the features and benefits and relationship with SAP. Among the features discussed are compatibility with EnergyIP 8.6 and Data Compliance Protection required for GDPR compliance.

## 2.18 Settlements

<b>Settlements 3.0 Product Overview</b>  Self paced Settlements31	30 Minutes	The Settlements application is an add-on application for MDM. Settlements is designed to manage aggregation of interval data for enabling settlement financial transactions in wholesale markets. For metering points that are not interval metered, profile estimations are performed and allocated to market parties. This video provides a product overview of Settlements - Markets, Features, Use Cases, and Data Flow.
--	------------	--

Published by Siemens AG  
Humboldtstrasse 59  
90459 Nuremberg, Germany  
E-mail: [gridsoftware-training@siemens.com](mailto:gridsoftware-training@siemens.com)

For the U.S. published by  
Siemens Industry, Inc.  
100 Technology Drive Alpharetta, GA 30005 United States  
E-mail: [gridsoftware-training@siemens.com](mailto:gridsoftware-training@siemens.com)