Operations Optimizer Essentials

Delivering a central data repository to enable revenue assurance and AMI operations

SOLUTION OVERVIEW

AMI data has become one of the pillars needed to support utility business processes. Having timely and complete data is no longer an option. However, some utilities need a solution that can be implemented quickly and with low effort, ensuring a quick return on investment.

Operations Optimizer (OO) Essentials is pre-integrated with the Itron UIQ headend and does not require any additional integrations. Because of this, it can be operational in a matter of a few short weeks. This allows you to prioritize time and resources on other critical-path projects, but quickly start getting value from your AMI data using the powerful analytics in the OO AMI Ops and Revenue Assurance modules.

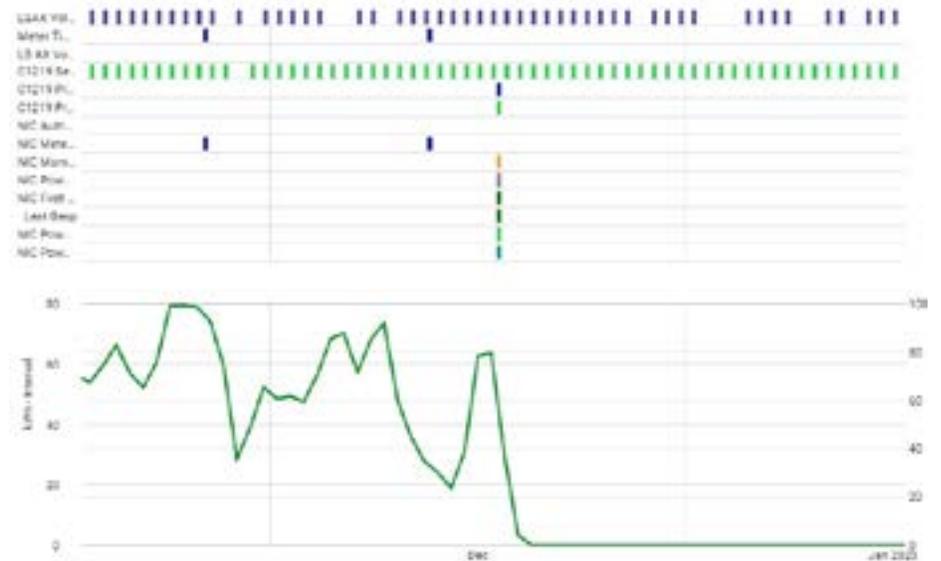The OO Essentials bundle delivers key benefits, such as:

» Pre-integration to Itron's UIQ headend,

» Instant insights through speed and simplicity, and a

» Quick return on investment.

KEY BUNDLE COMPONENTS

Revenue Assurance

Revenue Assurance (OO Essentials) provides a base set of use cases that will help utilize smart meter data, meter events and configuration data to protect against revenue leakage and other non-technical losses.

Graph showing events and usage data before and after a theft event.

With Revenue Assurance you can:

» Use the collection of more than 100 analytical methods to identify service points and transformers associated with potential theft, diversion and tampering, and show the timelines associated with these events.

» Detect, resolve, monitor and recover revenue losses associated with unauthorized use, self-reconnects and meter bypasses.

» Integrate distributed intelligence analytics results into Revenue Assurance, allowing you to operationalize this edge analytic in the backoffice.

AMI Operations

AMI Operations (OO Essentials) provides a base set of use cases that helps utilize smart meter data, meter events and configuration data to identify and diagnose meter data collection and delivery problems. With AMI Operations you can:

» Identify read quality issues such as missing reads, missing billing registers, negative reads, high or low reads, and estimated meters.

» Detect meter exceptions or events that will keep the meter from communicating.

» Resolve back-office data issues such as configuration mismatches or incorrect location data.

Meter Temperature Monitoring

Meter Temperature Monitoring uses meter temperature readings and/or high meter temperature events to identify meters reporting temperatures over a configurable threshold and provides statistics for assessing meter temperature history.

Integrations

The OO Essentials bundle is pre-integrated with UIQ and doesn't require any other integrations to be fully operational. This is what allows the solution to provide value quickly.

Workflow and Rule Automation

The OO workflow feature is used to track events and exceptions through their process lifecycle. All OO workflow and rules capabilities are available as part of the OO Essentials bundle. With these features, you can:

» Assign work automatically,
» Create work orders automatically,
» Record field investigation results automatically and
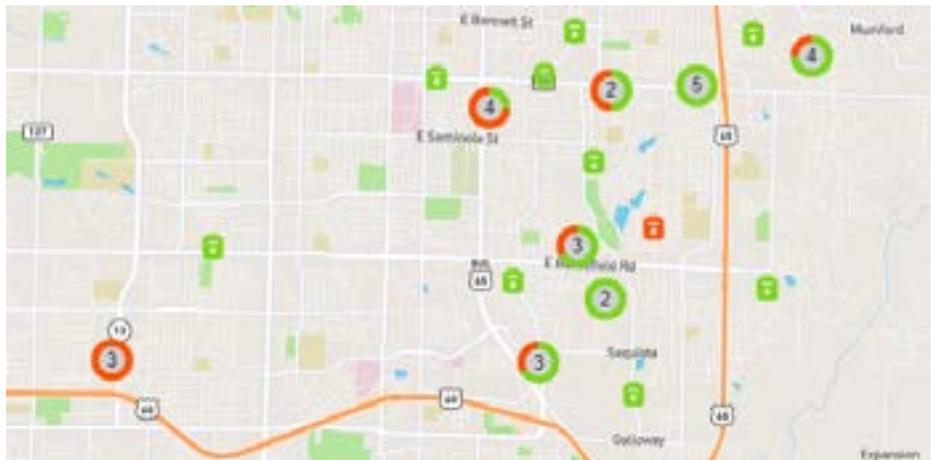» Track the history of all investigations.

A Centralized Data Repository and Ad Hoc Reporting

The OO Essentials bundle pulls data from the head-end (AMM) to provide a data repository that will support the pre-built use cases in the bundle. With this rich data set, data analysts can ask new questions and create new use cases using a rich set of Query and BI tools.

KEY BENEFITS

Itron's OO Essentials bundle includes a reduced, but still very powerful set of AMI Operations and Revenue Assurance use cases. The power of this bundle will help you successfully manage your meters with the least amount of effort. The OO Essentials bundle makes it possible to achieve a variety of business benefits such as:

» Maximizing AMI performance by managing meter exceptions and events in a structured and intelligent manner.

» Saving labor costs by realizing operational savings with effective tools that minimize back-office efforts.

» Reducing unnecessary truck rolls.

» Increasing revenue by detecting theft (and other revenue loss situations) and reducing estimated bills.

» Identifying safety issues.

Analytic results displayed geo-spatially on a map

CONCLUSION

OO Essentials gives you a quick path to realizing the value of your AMI data. The functionality of the OO Essentials bundle will help safeguard the health of your meters, ensuring AMI data is available for the many utility business processes that depend on this data.

OPERATIONS OPTIMIZER

Operations Optimizer is used to integrate data from multiple sources and leverage big data technologies to maximize analytic performance and support various outcomes. Leading utilities count on data-driven insights from Operations Optimizer in their daily operations. Operations Optimizer is used by utilities around the globe and analyzes data from over 30 million water, gas and electricity meters, in both AMI and legacy environments, at more than 25 utilities. Operations Optimizer supports many outcomes such as AMI operations, revenue assurance, EV and solar detection, meter-to-transformer connectivity and transformer load monitoring. Operations Optimizer is available as a hosted solution and is integrated with Microsoft® Azure.

Analyze

	Service Point	Meter	ST	SetDate	AdminStatus	OpStatus	BvOp	↓ DrpEvtSc	PatThftSc	RA0UseSc	Post100sAvg
	1033200001	A1ND301425	E	8/10/2015	Active	Active	1903	792	63	0	3.1
	7487000022	ATCA304346	E	12/5/2016	Active	Active	2183	789	342	0	0.0
	8306200070	A1ND300470	E	6/15/2015	Active	Active	2183	76	30	0	3.3
	0664000083	A1ND300811	E	11/18/2016	Active	Active	1923	731	23	0	5.9
	169000070	A1ND330966	E	3/10/2017	Active	Active	2057	695	72	0	2.6
	6990200070	327267	F	6/14/2017	Active	Active	2147	695		21	0.0
	3742699596	A1ND332896	E	12/7/2016	Active	Active	2183	657	307	0	0.0
	6287200070	A1ND346956	E	2/2/2017	Active	Active	2185	620	493	0	0.0
	7842000022	342124	E	12/5/2017	Active	Active	1954	600		50	3.3
	569000070	A1ND330991	E	11/3/2016	Active	Active	1852	573	81	0	7.8

Analytic results displayed in a table with prioritization scores

Revenue Assurance Use Cases	OO Essentials	OO Advanced
AMI Zero Use	X	X
Channel Reverse Energy	X	X
Demand Reset	X	X
Disconnected with Events	X	X
Disconnected with Usage	X	X
Disconnected Unreachable	X	X
Drop on Event	X	X
Drop on AMI Meter Exchange	X	X
Increase on AMI Meter Exchange	X	X
Meter Bypass Detection (DI)	X	X
Pattern Theft	X	X
Repeat Offender	X	X
Stolen Meter	X	X
Consumption on Inactive Meter		X
Estimating Consumption		X
High Received Night Usage		X
Load Side Voltage (Bypassed Meter)		X
Low Night/Weekend Usage		X
Power Quality (Phase Issues)		X

AMI Operations Use Cases	OO Essentials	OO Advanced
Meter Temperature	X	X
Missing Reads	X	X
Exception States	X	X
Fatal Events	X	X
High Turnover Meters	X	X
High/Low Reads	X	X
Zero Usage (aka Fail to Zero)	X	X
Estimated Usage	X	X
Headend/CIS Mismatch		X
Read Rate Report		X
Register Digit Mismatch		X
Register Rollback & Spikes		X
Register Without Location		X
Service Point Lat/Long Validation		X
Service Type ID Mismatch		X

Network Operations Use Cases	OO Essentials	OO Advanced
Over/Under-Utilized Access Points		X
No Secondary AP		X
Low Ping Percent		X
Discovered Devices		X
High Churn Access Points		X
High Reboots		X
Network Health (Scoring)		X
High Hop Count		X
Event Counts by Device		X
Backup Battery Management		X

Meter Temperature Monitoring Use Case	OO Essentials	OO Advanced
High Meter Temperature	X	X

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