

# Outage Detection System (ODS)



Data sheet

# Turning raw data from the AMI network into actionable insights in the Outage Management System (OMS):

- » Enables rapid identification and scoping of outages
- » Tracks restoration status to quickly spot nested outages following repairs
- » Offers CIM-based data interfaces (IEC 61968) to easily integrate with OMS and other systems
- » Filters events to ensure only accurate and actionable outage data is reported

# MINIMIZE IMPACT AND RESTORE SERVICE TO YOUR CUSTOMERS

The Itron smart grid solution combines network infrastructure, software, and professional services to enable a range of smart utility applications. Utilities can leverage Itron's Advanced Metering Infrastructure to accelerate outage management, increase grid reliability, and improve customer experience.

Smart meters with embedded Gen5 Network Interface Cards (NICs) communicate real-time outage information back to a utility's operations center, providing a more complete and real-time picture of outages and corresponding restoration activities.

ODS allows utilities to easily integrate outage data from AMI into a third-party OMS, yielding previously unavailable detail and real-time outage status down to individual meters. Leveraging outage data from AMI enables utilities to better scope outages, minimize their impact, and more rapidly restore service. This data also allows utilities to realize significant operational savings and demonstrate a clear customer benefit for their smart grid investments.

# **GEN5 SOLUTION ARCHITECTURE**

# **BACK OFFICE SOFTWARE**

Any application server: not dependent on Itron head end



Itron's Gen5 solution supports a range of smart grid applications on a single open standards-based network.

#### **ELIMINATE GUESSWORK**

Outage Detection System collects data from multiple points across the AMI network to ensure that the most up-to-date information is available. The software also performs complex event processing to filter this data in real time and ensures that only relevant and actionable data is forwarded to downstream systems. For example, ODS knows when meters are undergoing maintenance or are part of a planned outage and can be configured to not forward alerts from such devices. In addition, ODS can automatically filter out momentary outages, ensuring outage tickets are created only for sustained customer interruptions.

	Home	Devices	Outages	Admin	U
Application Settings	Syst	em Settings			
Storm Mode Enable Storm Mo	de				
Momentary Duration (Seconds)					
60					
60					
OMS Forwarding					
OMS Forwarding					
OMS Forwarding	ations for Decla	red Outages			

ODS offers a number of configuration options to control the outage information flowing to the OMS.



ODS processes last gasp and restoration data arriving from the AMI network and displays this information on a map allowing utility staff to see the extent of an outage.

### SIMPLIFY INTEGRATION

Outage Detection System simplifies integration with existing systems and supports powerful workflow development. The software easily interfaces to OMS using a message bus and web services. Through this CIM-compliant data interface, ODS can pass real-time outage and restoration updates to the OMS, and the OMS can communicate back to ODS. For example, OMS can query the software for the restoration status of specific meters. ODS software also supports a "storm mode" to prevent notifications from overwhelming the OMS when the grid is experiencing a large number of outages. By simplifying integration between AMI and OMS, ODS reduces costs for utilities and enables them to realize benefits sooner.

### **DEPLOYMENT SERVICES**

To assist utilities in deploying outage detection, Itron offers an outage testing service that enables a utility to accurately simulate outages without disrupting power delivery. Itron can program the NICs in meters to send a last gasp, sleep a configurable period of time, and then send a corresponding restoration message. This outage testing allows a utility to simulate any size outage, from a single customer to a large feeder outage affecting thousands of meters. Such testing helps a utility maximize the value of its smart grid deployment, since it enables the utility to complete the change management process in tandem with the technology roll out.



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