



Oracle Utilities Live Energy Connect Protocol Support

Oracle Utilities Live Energy Connect supports a broad range of industry protocols.

Oracle Utilities Live Energy Connect (LEC) is scalable, OT-centric middleware that seamlessly integrates systems and devices speaking many utility and industry protocols. From our early days developing the original standard for TASE2/ICCP to safely control grid assets, to our development of a new category of real-time software, the operational technology message bus (OTMB), Oracle Utilities understands that integrating real-time operational technology (OT) systems and devices has a fundamentally different set of requirements than IT enterprise systems.

Leveraging OTMB into every product we deliver allows us to be sensitive to the OT imperatives of protecting life, equipment, and environment while delivering exceptionally efficient integrations of grid automation devices, OT, and IT systems securely across low quality networks, and a range of OT standards ranging from 40-year-old device protocols to state-of-the-art large-scale streaming standards.

OTMB is at work when we connect a single generation asset to an ISO and when we help manage a network of millions of devices. Oracle Utilities' team of engineers and our OTMB architecture combine to deliver OT-hardened rapid system integrations. Features include:

- Native support for major utility protocols including ICCP/TASE.2, OPC, DNP 3.0, MultiSpeak, Modbus, CIM, Web Services
- Point and Click configuration for simple and complex data flows
- Over 50 built-in data filters
- Embedded Python support for complex data manipulations

BE ASSURED WITH PROVEN RELIABILITY

100+ customers utilize Oracle Utilities LEC as an OTMB to connect their assets, systems, and devices. Oracle Utilities Live Energy Connect is backed by Oracle and supported by experienced, OT-savvy professional services engineers who provide a quick path to getting your solution online.



The Oracle Utilities LEC OTMB Architecture Ensures Efficient Integrations

- Native support for many utility protocols including ICCP/TASE.2, OPC, DNP 3.0, MultiSpeak, Modbus, CIM, Web Services
- Point-and-click configuration for simple and complex data flows
- Over 50 built-in data filters
- Embedded Python support for complex data manipulations

ORACLE UTILITIES LIVE ENERGY CONNECT SUPPORTS THE FOLLOWING PROTOCOLS AND TRANSACTIONAL DATABASE LANGUAGES:

Bi-Directional Protocols

- DNP 3.0 (RS-232/485, TCP, UDP)
- Extensible Web Services Support
 - REST
 - SOAP
 - ODATA
- GE ISC, ISD, IST
- GRPC*
- ICCP Blocks (1, 2, 4, 5, 7, 8)
- IEC 60870-5-104
- IEEE 2030.5*
- Modbus (RS-232/485, Modbus+, TCP, UDP)
- MMS (TCP)
- MultiSpeak
- OPC DA*
- OPC UA
- SMS (cellphone alerts)
- UCA 2.0
- UDDI WAP
- XML

Database Support

- DB2
- Firebase
- InfluxDB
- MS SQL Server
- MySQL
- MySQL MaxDB
- MongoDB
- ODBC
- Oracle
- Postgres
- SQLite
- Sybase

Technology for Adding Connectivity

Embedded Python Scripting Language Support

Leading development environment support

- .Net
- ActiveMQ
- Azure Service Bus
- IBM MQ
- OPC Client and Server
- Oracle ESB
- Sockets C/C++ API
- TIBCO Rendezvous

Interface to any SCADA, EMS, HMI, DCS and/or OMS System, including:

- ABB
- Advanced Control Systems
- AREVA
- EFACEC
- GE
- Honeywell
- iFIX
- Intellution
- Invensys
- M3i
- Open Systems International
- Oracle
- OSISoft
- Siemens
- Sisco
- Telvent
- Triangle Microworks
- Wonderware
- Full support for CIM, DAF, ICCP, UCA, OPC/CORBA, and XML

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