

TOP Server Communications Platform: Proven technology for rigorous communications standards

TOP Server is a interoperable, scalable, affordable solution for connecting, monitoring, controlling, and managing diverse automation devices and software applications across multiple telemetry options, including all radio and modem types, ethernet TCP/IP, serial Multi-Drop, and satellite. Communications are managed through a robust software platform that supports an array of client interfaces including OPC, EFM, propriety communication protocols, and API's. TOP Server enables improved operations and decision making by providing real time data to SCADA systems as well as EFM output to validation and accounting systems.

Communication Drivers:

Information is interpreted and translated through TOP Server's vast library of communication protocols and interfaces, allowing information to flow seamlessly between automation and enterprise systems. TOP Server provides drivers for Open Standards and industry leading automation equipment, spanning over 300+ protocols.

Built-in Redundancy:

Through the add-on product Redundancy Master and TOP Server's Media Level Redundancy plug-in, establish a reliable and uninterrupted network for monitoring and controlling your automation processes. Redundancy Master increases reliability by marshaling redundant pairs of communication servers. Media Level Redundancy is a standard feature within TOP Server, and is used to establish a redundant connection of a single device or a pairing of two devices. Both redundant methodologies can be used together to eliminate a single of point of failure within a system.

Electronic Flow Measurement:

A significant number of flow devices and flow computers have the ability to store raw historical flow measurement data and perform computations on this data. TOP Server drivers with EFM capabilities retrieve the data on a configurable interval basis and the EFM Exporter creates appropriately formatted output files for upload into flow analysis/accounting software (i.e., Flow-Cal, PGAS, etc.) for custody transfer purposes.

Communications Tunneling:

OPC UA tunneling uses a client/server architecture to transfer data over the Internet, WAN or LAN which creates a secure connection through firewalls and complements existing internal OPC DA connectivity. The OPC UA tunnel boasts security, ease-of-use and maintainability.

Information Linking and Logic:

TOP Server's Advanced Tags plug-in allows users to link information among components within your OPC Server project. The LinkMaster product expands this capability to enable information to be linked among separate OPC servers. Also, Logic and Math functions on tags are performed using Advanced Tags.

Users measure the duration of operations, totalize events, perform averages, set trigger conditions for data acquisition, and combine machine conditions to generate an overall machine state—all in a convenient, cost effective, and straightforward way. These capabilities are extremely valuable for high-level archive and subsequent analysis.

Data Logging:

TOP Server can also be your data provider for a wide range of popular historian applications and has options for logging data to any ODBC compliant database.

Why Software Toolbox?

Connecting dissimilar automation devices and systems is our only business and we excel at providing the right solution to meet the specific challenges of every industry we serve. The experience TOP Server brings for the oil and gas industry is backed by:



Proven interoperability

Be confident that all of your information systems can "talk" to each other with nothing lost in the translation. Automation and enterprise information systems work together now and in the future through TOP Server's ever-growing and up-to-date communications portfolio.



Centralized Communications

TOP Server consolidates data and information from various sources—refineries, pipelines, offshore drilling sites, and more—consistently and reliably in a single, centralized source for automation communications. As a result, you reduce network traffic, device and system resource usage, and data inconsistencies.



On-Demand Scalability

TOP Server is designed to grow with your company's evolving communication requirements without interrupting your established equipment. On-demand modular design makes it easy and efficient to scale your existing solution.



Industrial Strength

Since 1996, Software Toolbox has delivered a wide variety of high quality automation software solutions for the most demanding requirements. The TOP Server and it's communications drivers have been rigorously tested through the OPC Foundation's interoperability and lab testing programs. Additionally, Wonderware users are provided assurance of compatibility, with TOP Server being a Wonderware Certified Partner Product.



Oil and Gas

Energize communications with Software Toolbox



Software Toolbox has the communication software solution to energize your business today.

TOP Server is an interoperable software solution which connects dissimilar devices and systems delivering information throughout your organization. Software Toolbox's Oil and Gas product suite is a single server platform providing centralized communications with the scalability, industrial strength, and interoperability to meet the varied business challenges in the oil and gas industry.



TOP Server can be easily configured for upstream, midstream, and downstream companies to help them connect, monitor, manage, and control diverse automation devices and software applications across multiple telemetry options.

Upstream: Improve project success backed by faster, better decisions

Seizing opportunities in oil and natural gas exploration and production demands quick, strategic action based on informed decisions. You need fast, easy access to complex project data and information across multiple geographic sites that include offshore drilling platforms, onshore rigs, and well sites. TOP Server helps manage data from dissimilar sources and make better business decisions faster by providing:

- A single source of integrated data—operational, production, geologic, and asset management
- Better visibility of onshore, offshore and field data. Easier data sharing with all project stakeholders

Midstream: Monitor environmental impact, oil and gas flow, and ensure proper reporting of custody transfer

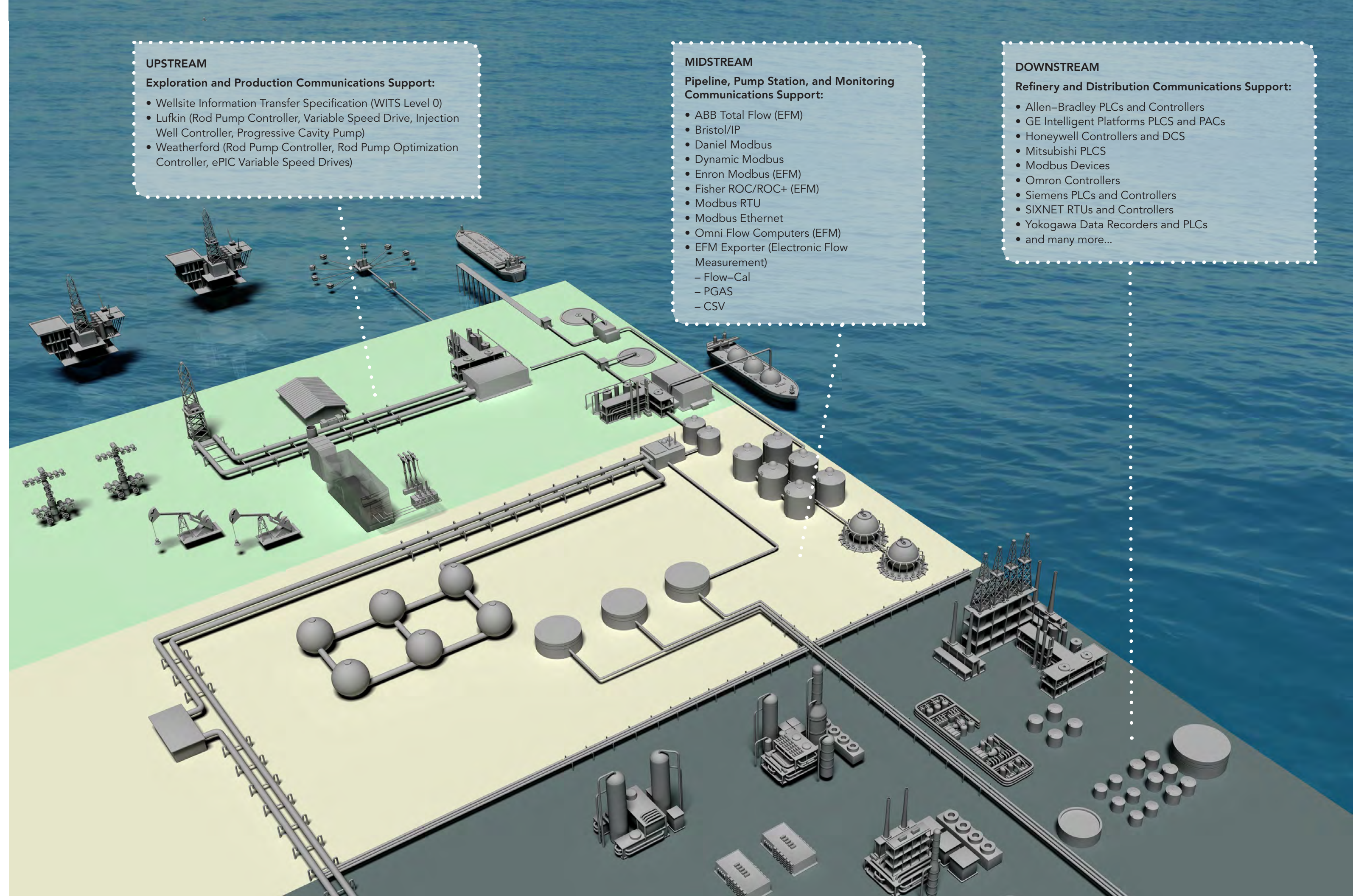
Managing diverse assets and pipeline infrastructures, staying compliant with multiple regulatory mandates, and ensuring reliable product transmission and distribution throughout the supply chain – doing business in the midstream sector is exceptionally complex. Custody transfer data for documentation and reporting must be quickly visible and accessible to manage ownership. You'll need to monitor and manage flow and leak detection to reduce risk of non-compliance and environmental impact. TOP Server can help you streamline many aspects of your midstream operations by providing:

- Greater visibility into pipeline performance data across multiple geographic areas
- Easier, faster data collection and consolidation for audits
- Automated data consolidation and distribution between gathering plants, pipelines and refineries

Downstream: Gain visibility and control to improve business decisions and operational excellence

Improved operations and intelligence through increased automation and access to information is essential in today's competitive global market. As refineries look to increase profitability, throughput, safety, and reliability, many are turning to automation and leveraging the vast amount of data that is available. The ability to see and act on various events within the process is critical to improving business operations and long-term success. Software Toolbox enables refiners to achieve these improved levels of operational performance by providing:

- Real-time visibility into process data and information
- Alarm and event notification of potential safety or environmental hazards
- Tracking of production irregularities in real time
- Equipment health and network asset monitoring



UPSTREAM

Exploration and Production Communications Support:

- Wellsite Information Transfer Specification (WITS Level 0)
- Lufkin (Rod Pump Controller, Variable Speed Drive, Injection Well Controller, Progressive Cavity Pump)
- Weatherford (Rod Pump Controller, Rod Pump Optimization Controller, ePIC Variable Speed Drives)

MIDSTREAM

Pipeline, Pump Station, and Monitoring Communications Support:

- ABB Total Flow (EFM)
- Bristol/IP
- Daniel Modbus
- Dynamic Modbus
- Enron Modbus (EFM)
- Fisher ROC/ROC+ (EFM)
- Modbus RTU
- Modbus Ethernet
- Omni Flow Computers (EFM)
- EFM Exporter (Electronic Flow Measurement)
 - Flow-Cal
 - PGAS
 - CSV

DOWNSTREAM

Refinery and Distribution Communications Support:

- Allen-Bradley PLCs and Controllers
- GE Intelligent Platforms PLCs and PACs
- Honeywell Controllers and DCS
- Mitsubishi PLCs
- Modbus Devices
- Omron Controllers
- Siemens PLCs and Controllers
- SIXNET RTUs and Controllers
- Yokogawa Data Recorders and PLCs
- and many more...