UCOS®
Field Recorder

TechnipFMC

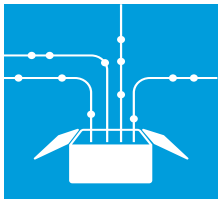
Secure and Efficient Sharing of Process Control Data Across Public or Wide Area Networks

FMC Technologies' Field Recorder is a highly configurable interface that simplifies system diagnostics and performance monitoring. The Field Recorder is FMC service interface for system diagnostics and product performance monitoring,

Live oilfield data can be analyzed and securely shared with process experts in real time, helping maximize production.

FMCTI's Field Recorder it is built on an open platform and runs on many popular servers.

Use information stored by FMCTI's Field Recorder to execute service tasks such as production optimization, field asset integrity assessment, missing/broken field instrumentation back-calculation, etc.



Collect

Communication Status
Instrument Operation
Subsea Processes

Secure

Encryption protects your data
One-way communication - cannot control wells

Analyze

Production Metering
Process Equipment
Leakage amount and position.

Reliable

Store & Forward works despite network interruptions

Act

Maximize Production
Predictive Maintenance
Rapid Intervention

Efficient

Filtering and compression save valuable bandwidth.
Filter out unnecessary tag values.
Zlib compression reduce file size up to 80%

FMC Technologies Field Recorder Features

- Access to all online and historical data for logging and diagnostics and support for Condition and Performance Monitoring and Predictive Maintenance.
- Supports data collection from multiple subsea or topside sources using various standard protocols.
- Allows user to define subsea and topside points to be collected based on project specific need.
- Read-only design ensures no impact on existing offshore control systems.
- Automatic subsea tag configuration on initial start-up reduces manual configuration.
- Subsea Historian is optimized for storing, processing, and browsing large time series.
- Includes a web based plotting tool to enable trending of both current and historical values.
- Installation on virtual computer(s) is supported.
- Proprietary protocol used between onshore and offshore servers ensures secure connection over a public network when using interfaced architecture.
- Store & Forward functionality ensures consistent data delivery over an intermittent Wide Area Network (WAN) when using interfaced architecture.
- Data compression and available tag filtering enables system to meet project bandwidth constraints when using interfaced architecture.
- Data Center Relay server can be configured to interface with many offshore Field Recorders to allow data from multiple offshore installations to be centralized onshore.
- Data can be pushed to any ODBC compliant database.
- Built in drivers for forwarding information to CPM software for processing.

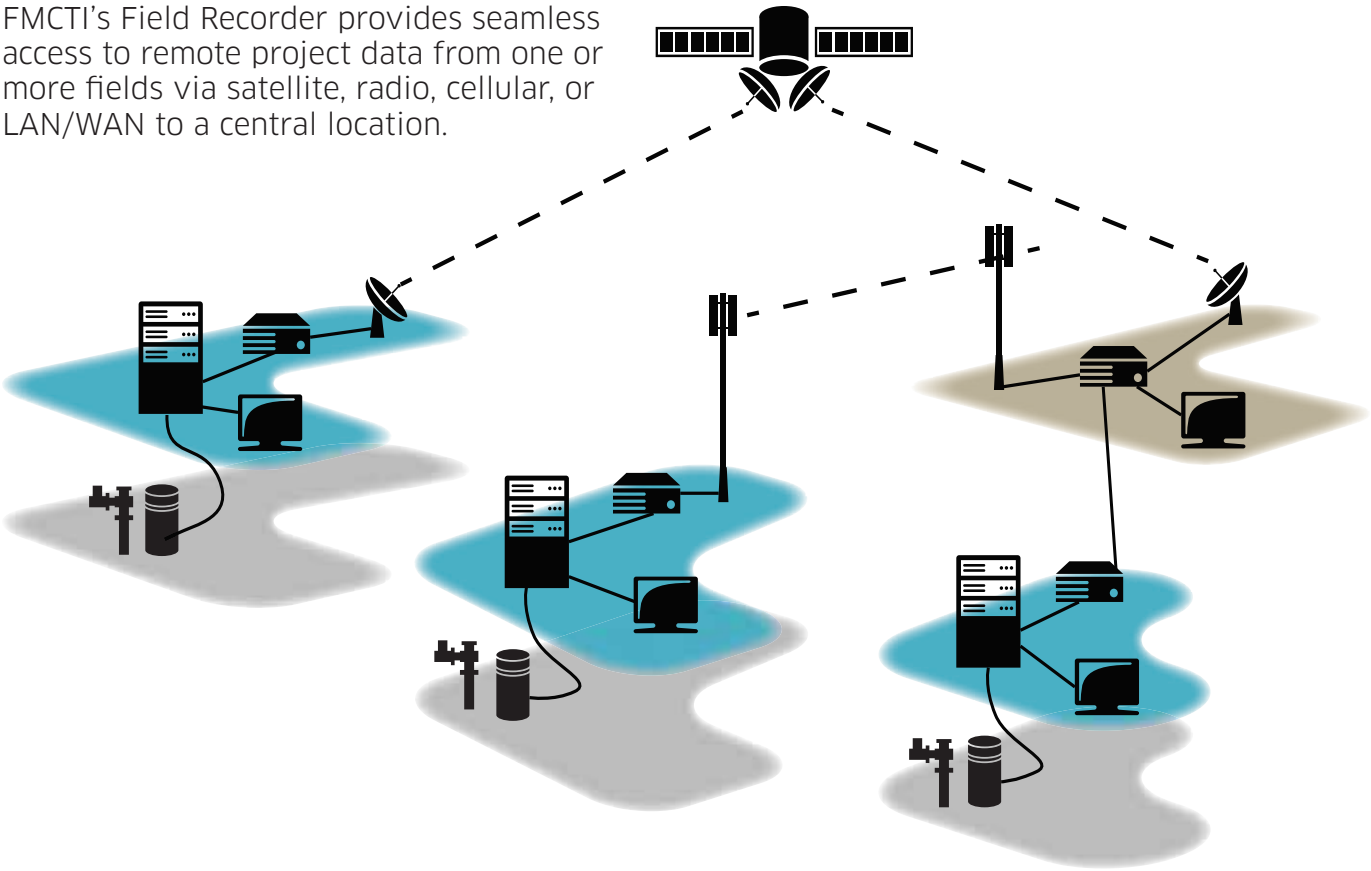
Listen to Your Field

With FMCTI's Field Recorder, your field can tell you what's going on.

Features	Benefits to You
A Field that lets you know when an equipment is starting to deteriorate.	Focused troubleshooting efforts and targeted decision making.
A Field that advises on how to optimize production through targeted equipment utilization.	Better equipment utilization and higher probability of meeting production targets.
A Field that automatically sorts and stores information relevant to equipment performance.	Backs up warranty claims should they ever arise and creates a solid base for you and TechnipFMC to continue to create even more technologically superior products.

Centralized Monitoring

FMCTI's Field Recorder provides seamless access to remote project data from one or more fields via satellite, radio, cellular, or LAN/WAN to a central location.



Standard System Specifications

- Standard System Specifications
- Standard 2U 19" rack mounted HP ProLiant DL380 Gen9 enterprise class server.
- Standard Windows Server 2012 R2 operating system.
- Remote access ready
- Time synchronization via NTP
- Java JRE
- Microsoft SQL Server
- Intel Xeon E5-2640v3 2.6 GHz 8 Core processor
- 16 GB DDR4 memory
- 4 x 1.2 TB 10k rpm Hard Drives
- 4 x 450 GB 10k rpm Hard Drives
- Total = 6.6 TB Disk Space
- RAID 5
- HP Smart Array
- Redundant Power Supply

Requested data:

- Product performance data
- SCM sensor data for all internal and external sensors
- Valve signature data
- SCM housekeeping data

Supported Interfaces

Input interface

- FMC722
- KOS150
- OPC DA 2.0
- Modbus TCP/IP
- UCOS UBrowser

Output interface

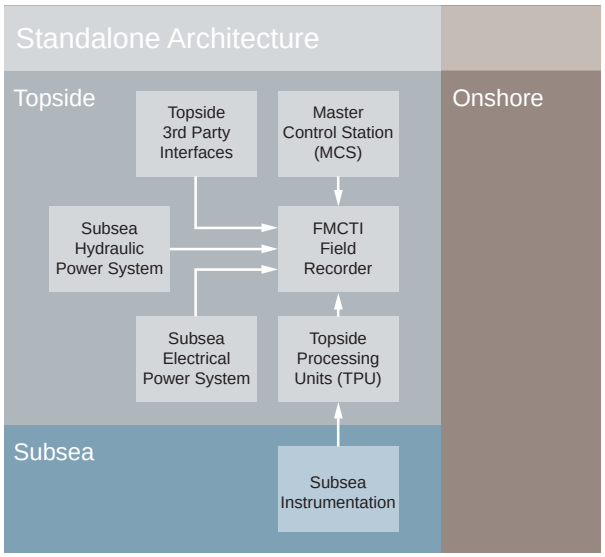
- FMC SyncBridge
- OPC DA 2.0
- Modbus TCP/IP
- ODBC

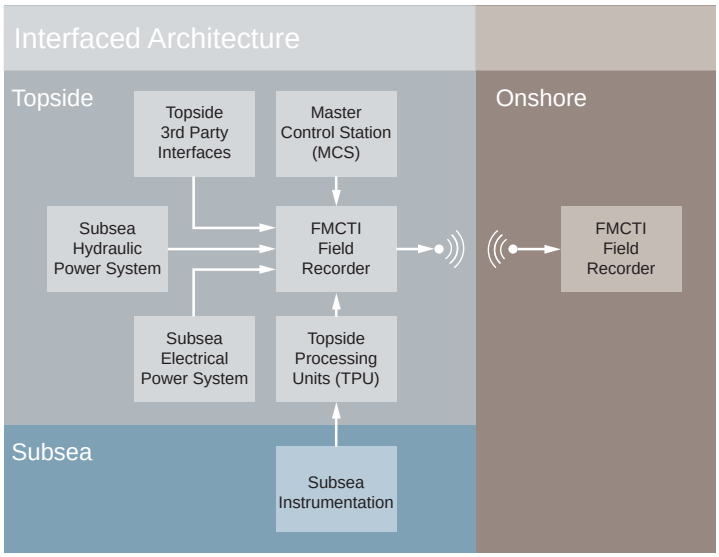
Configuration

Selectable system architectures based on available onshore/offshore telemetry and customer security policies. Flexible software components can be installed on existing hardware if required.

Standalone architecture, utilized when onshore/offshore telemetry is not available, results in the Field Recorder collecting, storing, trending and processing data offshore.

Interfaced architecture, utilized when onshore/offshore telemetry is available, results in the Field Recorder collecting offshore data and sending it onshore over a Wide Area Network (WAN) to a Data Center Relay server for storage, trending, and processing.

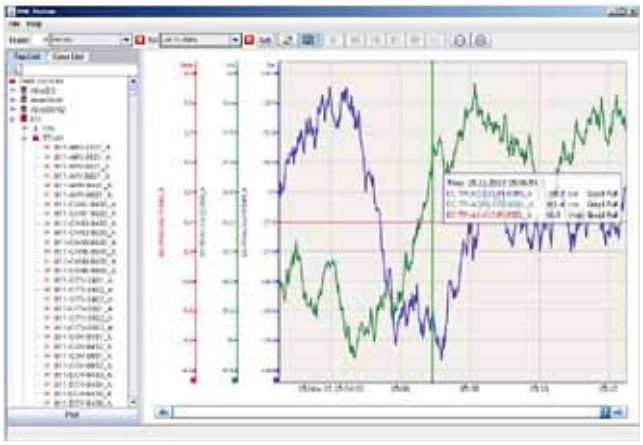




Plotting

When using the standalone architecture, FMCTI's Field Recorder contains a flexible powerful plottingtool for trending both current and historical data from the sub-sea historian. Users can search or browse for tags, zoom and copy data to text file or spreadsheet.

When network conditions permit, users may open plotter remotely using a web browser.



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