INDUSTRY SOLUTIONS: Oil and Gas (Compression)

Monico provides a solution for equipment managers and compressor technicians to increase their visibility and knowledge into how their engines and compressors are working. The increase in visibility of what connected equipment is doing helps to facilitate a move from reactive equipment maintenance to proactive management of production optimization and servicing of equipment.

Goals and Challenges

- **Keeping engines running at peak performance**
- **Avoiding or minimizing costly unplanned shutdowns**
- **Optimizing compressors for safety and productivity (i.e. flow)**

challenges that make this difficult

- Lack of data from equipment
- Shortage of manpower hours/qualified personnel
  - Analysis of the data
- Insufficient industrial communications
  - To collect useful data

The Solution

Connected Equipment Data Acquisition → **Data Interpretation and Visualization**

mCore® SDR

- Connects to Engine and Compressor
- Translates Protocols (Cat® CDL, J1939)
- Logs Data
- Runs Edge Analytics
  - **Detailed compressor models**
    - Machine Safety
    - Optimization
- Streams and Transmits real-time data to:
  - SCADA, HMI, PLC
  - IIOT Platforms (using OMF and MQTT)
    - OSIsoft® PI Systems
    - MonicoLive™

MonicoLive™

- Provides **Alerts and Notifications** (email and text)
- **Visualize Data f**rom engine and compressor
- **Stores data** for historical analysis
  - Trending and **Cloud Analytics**
- **Subject Matter Expertise**
  - Creation of pre-configured visualizations
  - Development of Analytics
    - (engine and compressor)
  - Cooperative Machine Troubleshooting

Benefits Of The Solution

- Provides immediate low cost access to **OSIsoft® PI** via **MonicoLive™**
- Enables proactive maintenance and service
- Improves engine/compressor production optimization capabilities
- *Real Time* **High Fidelity Data** for use in Diagnostics and Analytics

Your machine. Your data. Your way.

monico™
SIMPLE SOLUTIONS. POWERFUL MONITORING.

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18530 Klein Church Road Spring, Texas 77379
T—281.350.8751
sales@monicoinc.com

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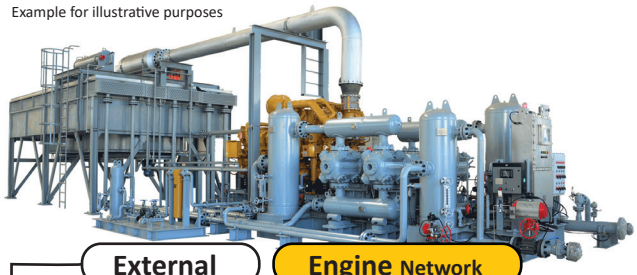
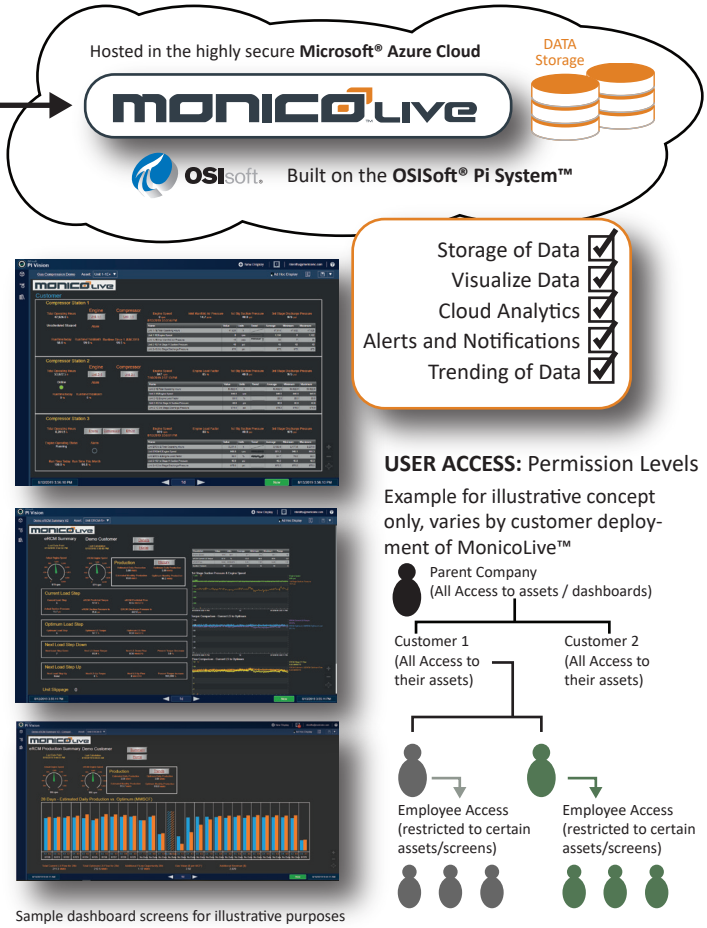
INDUSTRY SOLUTIONS: Oil and Gas (Compression)

How it works:

Engine and compressor data is streamed in real-time using the **mCore®SDR** and then transmitted to either an existing OSIsoft® PI Solution, other Control or Monitoring Systems (IIOT, SCADA, HMI, etc.), or **MonicoLive™ Remote Monitoring Solution** hosted in the Microsoft® Azure Cloud.





Additional Value through Partnership

ACI Service - eRCM Express

Monico's mCore®SDR, empowered with ACI's eRCM Express™ technology, provides end users advanced protocol conversion capabilities and a real-time edge performance compressor modeling solution. ACI's trusted expertise in reciprocating compressors and Monico's industry leading knowledge and experience in industrial communications has led to the development of this unparalleled partnership. **mCore®SDR**, loaded with **eRCM Express™**, is an ideal solution for end-users, packagers, and automation companies needing to control and monitor their reciprocating compressors.

- **Provides OEM-Compatible Modeling**
- **Models Single and Multi-Stage Units**
- **Predicts Safe Performance Across Unit's Full Operating Map**
- **Calculates Full Rod Loads and Pin Reversals Per Throw**
- **Empowers UCP with Dynamic Speed and Pressure Safety Limits**

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