

Enable Secure Real-Time Oil and Gas Pipeline Operations Through Digital Solutions



What if you could improve your pipeline technology to get better insights into your operations? We provide you with the solutions to digitalize real-time operations efficiently and securely.

Every day, your teams are challenged by outdated legacy infrastructure and technologies, reduced budgets, pipeline leakage, cybersecurity threats, and increasing regulatory pressure. Digital technologies can help you rewrite your operating landscape and support your operational activities but, with a lack of expertise, the task can be daunting. And as your assets become increasingly connected to the network, you will need to protect digital pipeline infrastructure against cyber attacks and promote a culture of security awareness.

Smart Connected Pipeline brings digital innovation to pipelines, oil fields, and processing facilities—from upstream production to operations and transport. This end-to-end solution encompasses professional services, industry expertise, and technology. It can help you assess, deploy, and maintain digital systems and cybersecurity solutions aligned with your needs.

Benefits



End-to-end solution management: enterprisewide oil and gas management including project management, engineering, business intelligence, predictive modeling, and analytics

- Identify the right solution for your needs
- Select key components that meet your operational needs and align with best practices (Figure 1)
- Leverage industry experts, products, and best practices
- Improve pipeline management to better manage leak detection and repair



Secure operations: a combination of architecture and cybersecurity practices to help you address security, standards compliance, and risk management

- Reduce business risk
- Comply with standards and avoid penalties and fines
- Increase revenue by minimizing downtime



Predictive capabilities through analytics and insights: a platform to manage oil and gas data and cybersecurity that applies

- Gain insight into operations and security from multiple components and devices in a single dashboard
- Increase predictive modeling capabilities
- Add new functionality quickly with a modular IoT platform

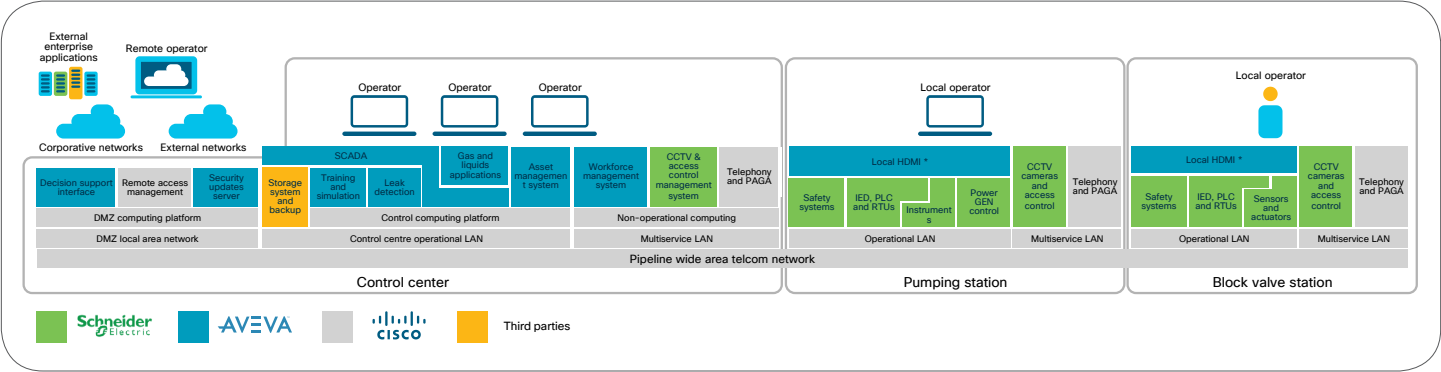


Figure 1 Smart Connected Pipeline addresses pipeline operational challenges with an end-to-end solution

Digital technology advancements, unsecure environments

Digital technologies are helping many industries transform their operating landscape—including the oil and gas industry. Information technology-centric solutions are being introduced to support improved pipeline management and to reduce risk of pipeline leakage and total cost of ownership (TCO). As a result, oil and gas companies can help ensure operational efficiency and cost-effectively maintain pipeline assets while keeping operations running 24/7 year-round.

With the digital era comes the need for practices that address risks such as cyber attacks. Oil and gas companies face the same cybersecurity threats as corporate systems but with the addition of a greater risk to safety and operational availability. As assets become increasingly connected to the network, oil and gas companies will be challenged to protect critical digital and pipeline infrastructures. They will need to monitor threats, identify vulnerabilities, build robust controls, and promote a culture of security awareness.

Use cases

Industry	Description
Oil and Gas	<ul style="list-style-type: none">• SCADA real-time operations• Remote access and decision support• Energy management• Leak detection• Intrusion detection• Physical security• Voice and emergency response• Asset health• Mobile worker

Financing to help you achieve your objectives

Cisco Capital can help you acquire the technology you need to achieve your objectives and stay competitive. We can help you reduce CapEx. Accelerate your growth. Optimize your investment dollars and ROI. Cisco Capital financing gives you flexibility in acquiring hardware, software, services, and complementary third-party equipment. And there’s just one predictable payment. Cisco Capital is available in more than 100 countries. [Learn more.](#)



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Case study

Large pipeline company helps ensure safe and efficient pipeline operations

Challenges

- High visibility project with tight deadlines
- First major crude project—required stringent operator training and strong qualifications
- Need for a best-in-class, highly available supervisory and control solution

Solution

AVEVA OASys SCADA solution (SCADA Pipeline Edition Powered by OASyS), Pipeline Operations, Integrity Operations (leak detection) and Pipeline Trainer software

Outcome

- Met stringent regulations and complex operational requirements
- Helped ensure safe operations through leak detection tools
- Optimized power usage
- Reduced implementation risk and TCO with an integrated solution

IGDAS ensures safe, reliable natural gas services

Challenges

- Operate reliably and safely
- Manage market liberalization and increased demand

Solution

AVEVA OASys SCADA solution (SCADA Pipeline Edition Powered by OASyS), dual redundancy at main control center, and off-site redundancy at emergency backup control center

Outcome

- Increased efficiency
- Reduced database management costs
- Reduced training and certification costs
- Improved customer satisfaction



The Cisco, Schneider Electric, and AVEVA advantage

Cisco, Schneider Electric, and AVEVA provide oil and gas industry-leading solutions that enable the safe operation of pipeline assets at the enterprise level, leveraging recognized security solutions and infrastructures. Together, we can help you ensure an architectural approach to mitigate deployment risk, accelerate solution deployment, improve operational efficiencies, minimize total cost of ownership, facilitate rapid resolution of critical network issues, and deploy cybersecurity best practices through the Smart Connected Pipeline Solution offerings.

Call to action

Do you have the proper technology and expertise to address the security of your pipeline operation? Address your technology and security challenges with Smart Connected Pipeline. For additional information, visit www.cisco.com/go/oilandgas, www.schneider-electric.com, or www.aveva.com then contact your Cisco, Schneider Electric, or AVEVA sales representative or Cisco authorized channel partner.