



Introduction

Because oil & gas pipelines are one of the ways that both oil and gas are transported, automation systems play an important role. SCADA systems, video networks and voice systems are all part of the real time multi-service platform. Network devices are distributed in the control center, field stations and valve control areas which communicate over a fiber backbone. It is important that all communication devices have access to field instruments and provide stable, reliable and consistent data transmission.

System Requirements

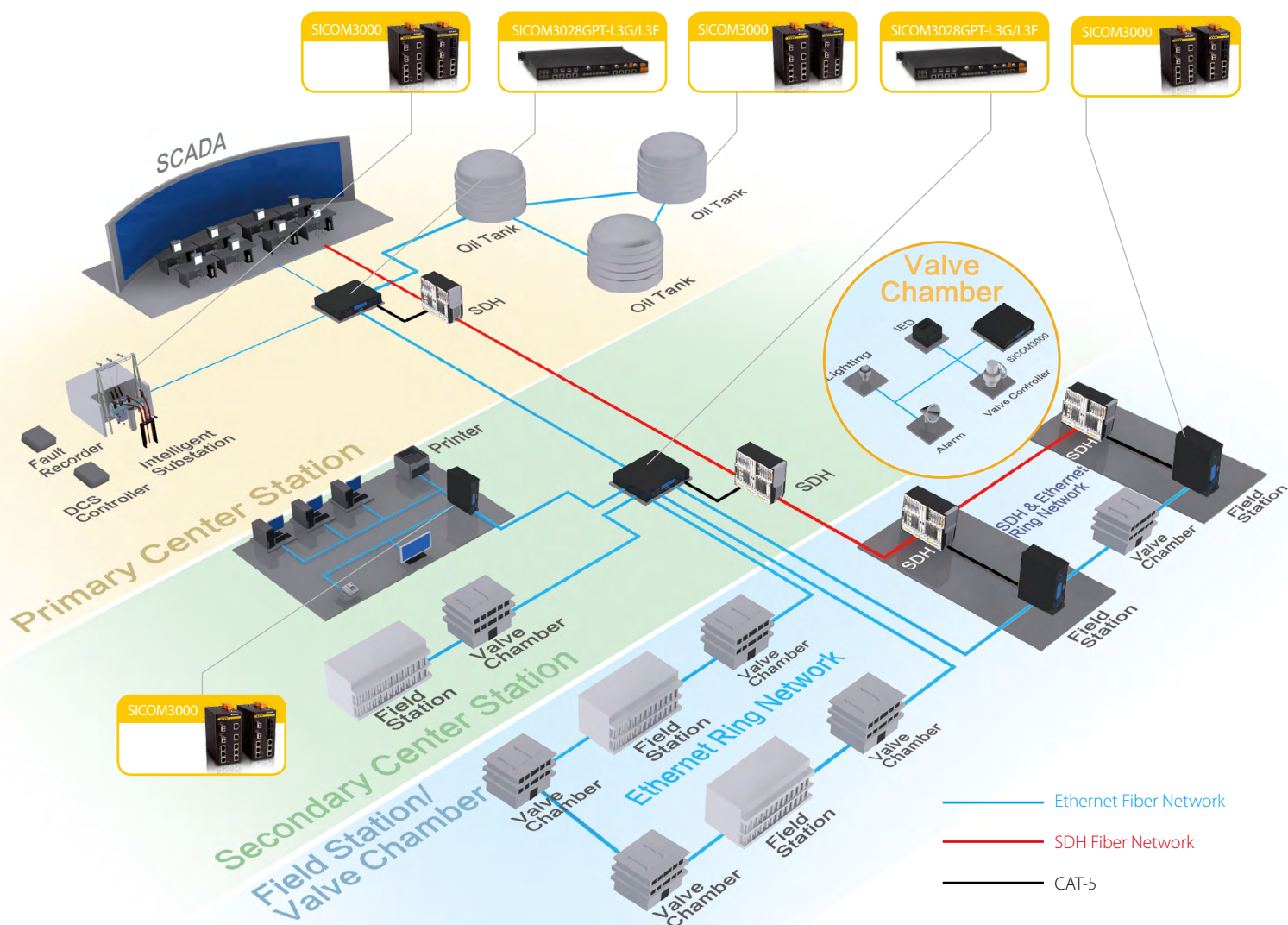
- SCADA and network management software can receive and monitor the state of the pipeline
- Remote data monitoring and real-time communication with central system through a stable fiber network
- Large bandwidth gigabit backbone network supporting real-time remote transmission of service, video and voice data
- Supports network self-healing, quick recovery after network failure, redundant protocols compatible with SDH and fiber systems
- Convenient network management and failure detection functions
- Industrial grade, wide operating temperature, adapted to harsh environments

Why Kyland

- Kyland provides complete network solutions, layer 3 core industrial Ethernet switches and rack-mount/DIN-rail layer 2 industrial Ethernet switches suitable for management centers, field stations and valve control
- Supports IEC62439-6(DRP), ring network recovery time < 20 ms (Supports SDH system)
- Supports Network Management System, Kyvision provides convenient and reliable monitoring of network state and network failure detection
- Supports port mirroring, port statistics
- EMC level 4, IP40 protection class
- Wide operating temperature -40~85°C , independent redundant power supply
- Low power consumption design

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Oil & Gas Pipeline Monitoring and SCADA Communication Network Solutions



Solution Characteristics

- Reliability: EMC level 4, IP40 protection class, fanless design, $-40\sim 85^{\circ}\text{C}$ wide operating temperature with zero package loss, independent redundant power supply, ring network recovery time $< 20\text{ms}$
- Real-time: switching delay $< 5\mu\text{s}$, delay jitter $< 1\mu\text{s}$
- Security: C/S mode authentication, different user access level, encryption mechanism
- Compatibility: POE products provide 802.3at interface