



Introduction

Intelligent devices are prevalent in today's Oil refineries. DCS, MES, SIS and security systems connect controllers and monitors via Ethernet to manage and monitor the production process.

System Requirements

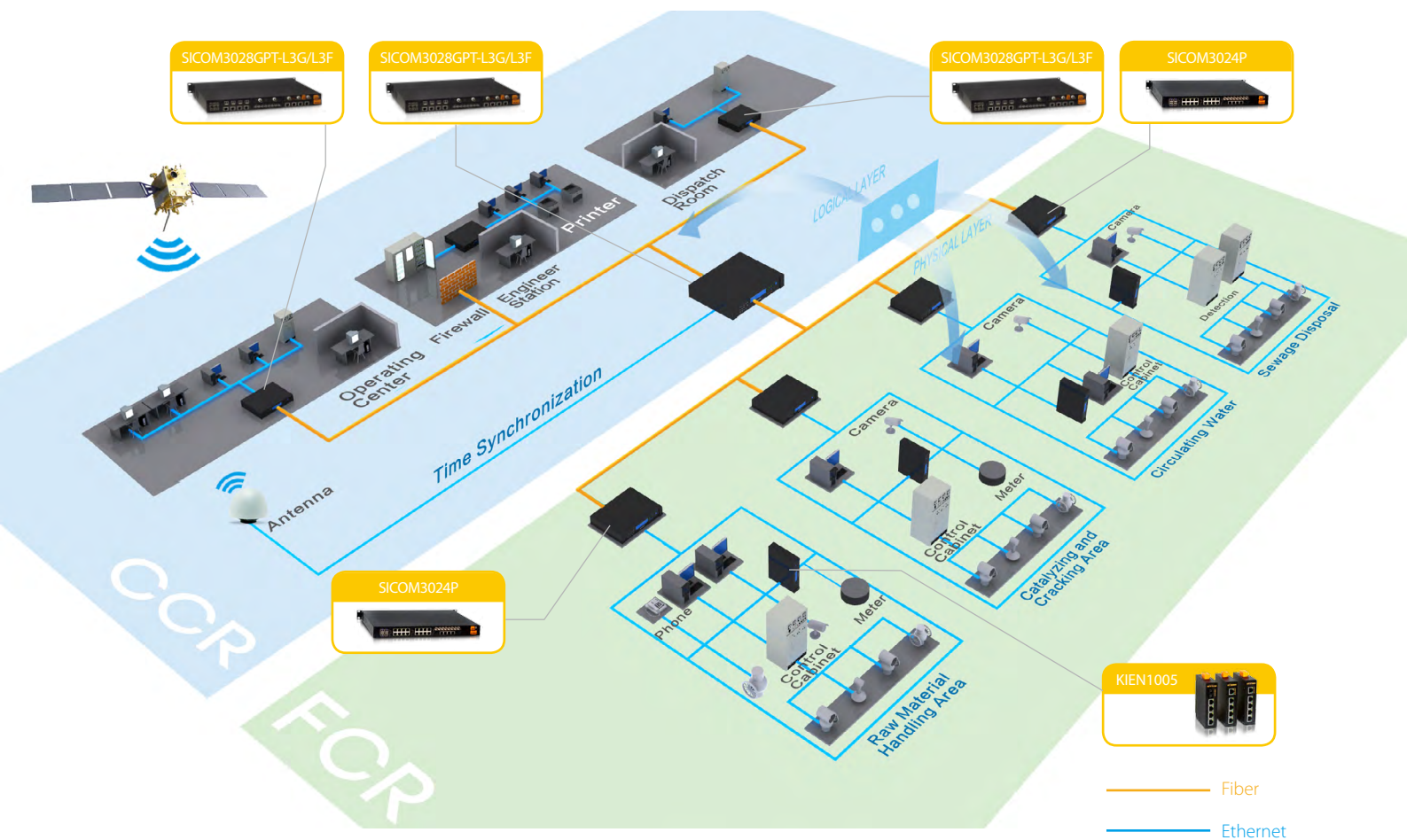
- Stable, flexible network
- Network redundancy for various systems, controllers and field devices
- Sufficient bandwidth to meet video monitoring requirements
- Failure isolation for DCS, SIS and MES problems
- Communication systems must provide data filtering and detect illegal access
- High electromagnetic protection, redundant power supply
- Low switching delay and delay jitter
- Secure access mechanism to avoid deliberate destruction of network

Why Kyland

- Managed industrial Ethernet switches provide stable network connection, excellent performance 7 day X 24 hours uptime
- Support STP/RSTP, DT-Ring, IEC62439-6(DRP) for fast network recovery
- Backbone network provides 1000Mb bandwidth. Jumbo frame supported to increase utilization rate of bandwidth
- Port isolation, loopback detection and port flow statistics
- TCP/UDP package filtering, MAC address binding prevents network from illegal access
- SSH, SSL, SNMPv3
- EMC level 4, industrial design, -40~85°C wide operating temperature, independent redundant power supply

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Oil Refining Automated Communication Network Solutions



Solution Characteristics

- Reliability: EMC level 4, IP40 protection class, fanless design, -40~85°C wide operating temperature with zero package loss, independent redundant power supply
- Real-time: switching delay < 5us, delay jitter < 1us
- Security: C/S mode authentication, different user access level, encryption mechanism
- Explosion proof: low power consumption design suitable for explosion proof areas