Reliable SCADA Networking for a 700MW Desert Wind Farm

Case Study

A rugged industrial Ethernet and MaxView network management solution for remote wind farm O&M in harsh desert conditions.

Country: Middle East

Results:

Stable performance in harsh desert conditions:
The network equipment continued to support site operations despite high heat, dust, and demanding outdoor conditions.

Lower remote maintenance workload:
Centralized visibility and browser-based management helped reduce unnecessary site dispatches and improve response speed.

Scalable model for renewable energy sites:
The architecture can be adapted for wind, solar, oil and gas, transportation, and other distributed industrial applications.

Products:

MISCOM7028G-4GC-24GT
Layer 2 Full-Gigabit Industrial Ethernet Switch

MISCOM7028G-12GF-8GC-8GT
Layer 2 Full-Gigabit Industrial Ethernet Switch

MISCOM7028-4GF-24F
Layer 2 Gigabit Industrial Ethernet Switch

System Requirements

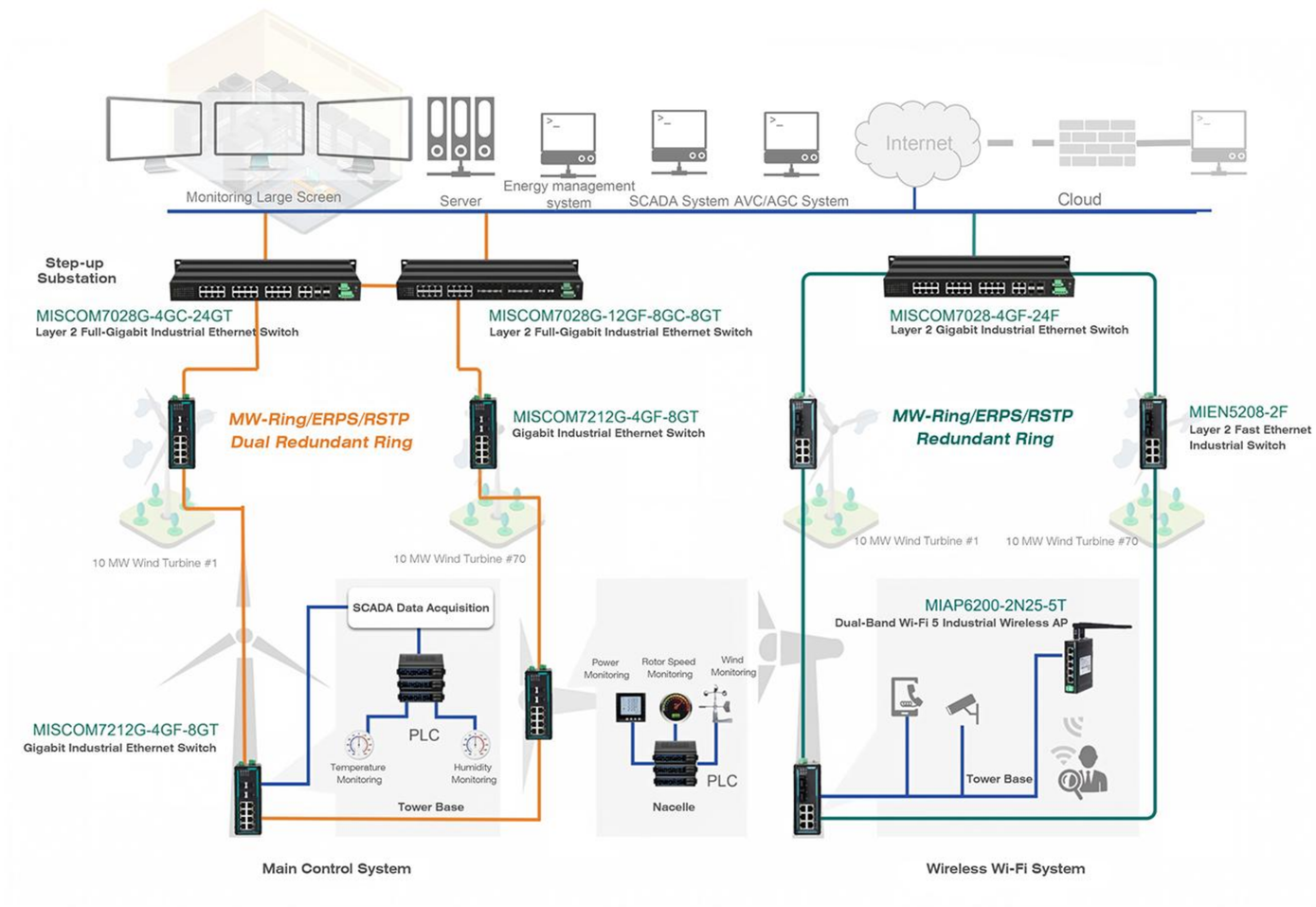
- Reliable operation in high heat, dust, and frequent temperature swings.
- Long-distance turbine-to-turbine communication with ring redundancy.
- Centralized SCADA visibility, remote configuration, and faster fault isolation.

The Maisvch Solution: Intelligent IIoT Integration

Maisvch designed a site-wide industrial Ethernet network with MISCOM7028 Series switches as the core network devices. The switches provide web-based management for remote configuration and troubleshooting, while SNMPv1/v2c/v3 enables integration with upper-level management systems.

Operational functions such as port mirroring, RMON, LLDP, tiered logs, and remote log output help engineers identify abnormal conditions and locate communication faults more quickly. MaxView gives the operations team unified visibility of switches, optical modules, and link status through a topology view.

Network Architecture



Why Maisvch

- Rugged industrial Ethernet design for harsh and distributed assets.
- Remote web management plus SNMP integration for easier maintenance.
- MaxView topology visualization for centralized operations and faster troubleshooting.

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Maisvch