SEGMIC ENGINEERING

Solution Empowered by Innovations

Solutions for Safe and Resilient Infrastructure Automation

Infrastructure Automation with PLC based Control

As a specialist in PLC-based control, Segmic delivers advanced control systems for public and critical infrastructure. Our integrated approach combines redundant controllers, robust communication and SCADA software into scalable solutions that keep civic systems safe and available around the clock.

Our solutions are built for resilience and long-term performance, for new schemes and upgrades of existing assets. With expertise in platforms such as Siemens, Allen-Bradley, Schneider Electric and many more, we deliver tunnel ventilation, fire-hydrant and pump networks, emission control and access systems tailored to each project.

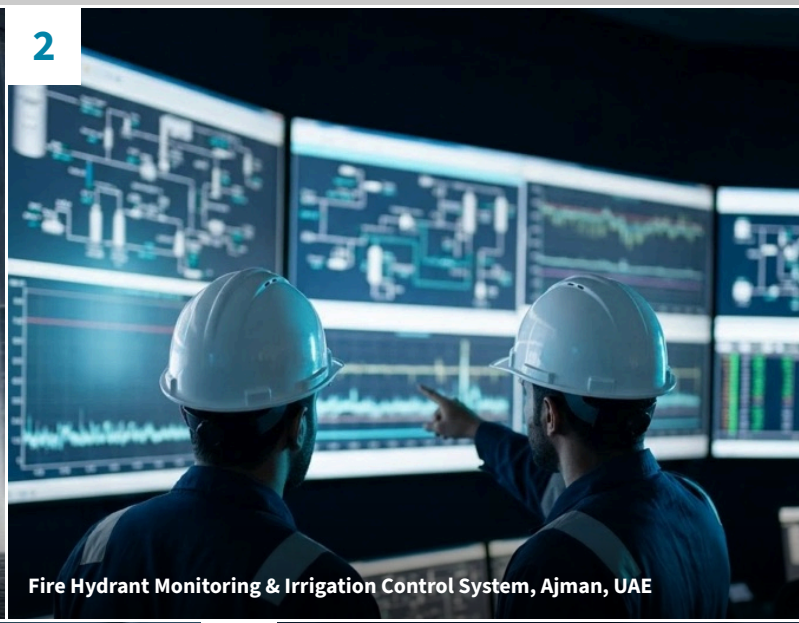
From tunnels, underpasses and waterfronts to municipal pumping networks, public facilities and landmark attractions, our systems improve safety, availability and energy efficiency across large, distributed sites.

We ensure seamless integration with existing systems over fibre-optic networks, supporting protocols like PROFINET, Modbus, BACnet, IEC 60870-5-104, OPC UA and more. Additionally, we enable edge and cloud connectivity for central control rooms.

Application areas for the Segmic control solution

1. Tunnels & Underpasses
2. Fire Hydrant Networks
3. Pumping Stations
4. Waterfronts & Canals
5. Public Buildings
6. Stations & Terminals
7. Car Parks
8. Emission Control
9. Landmarks & Attractions

1 Dubai Canal Waterfall, Dubai, UAE



2 Fire Hydrant Monitoring & Irrigation Control System, Ajman, UAE

3 Early Alarm Monitoring System, Riyadh, Saudi Arabia

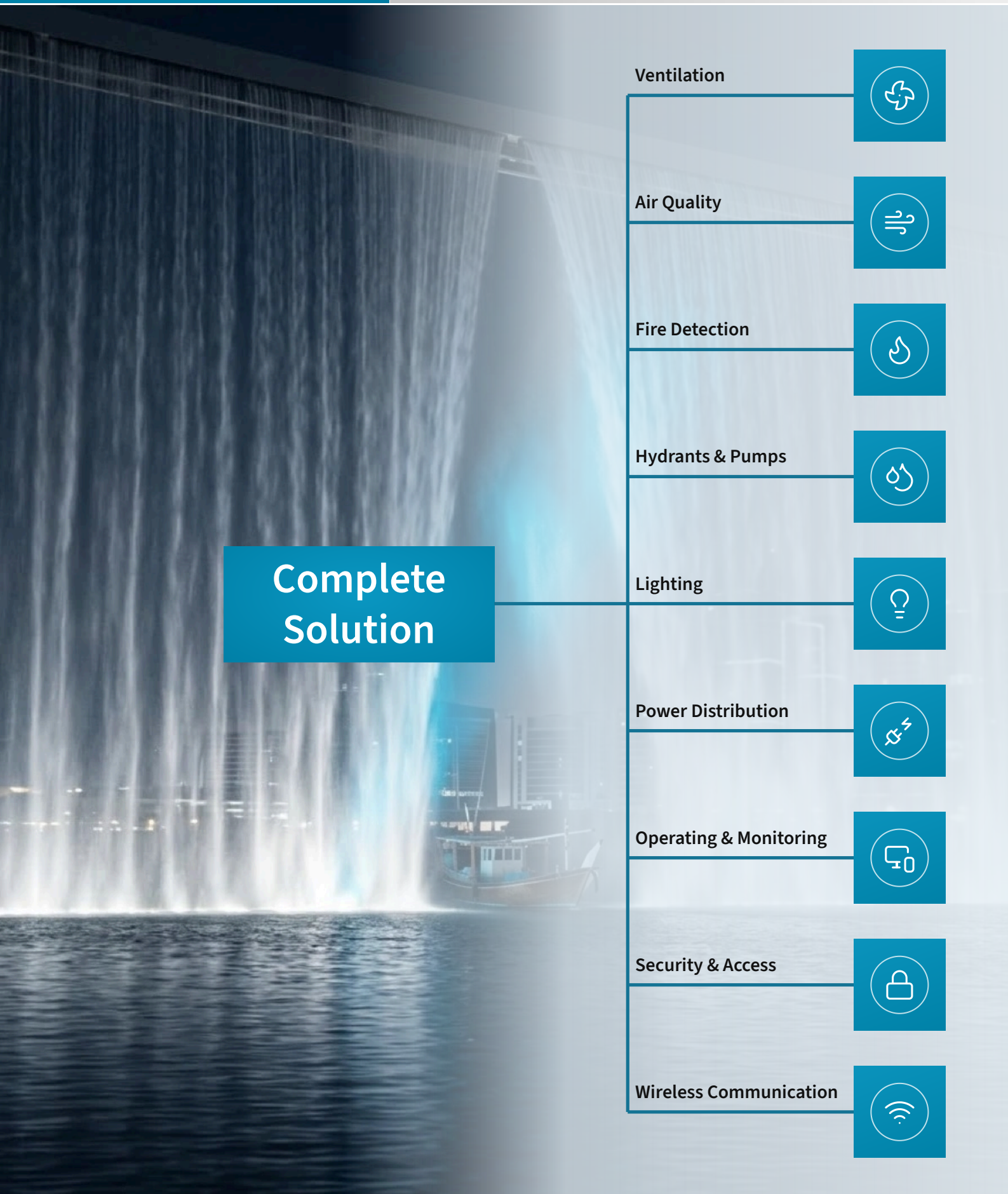
4 Tunnels & Underpasses

5 Pumping Stations

From individual technical systems to a safe, resilient complete solution

All technical systems integrated in one control system:

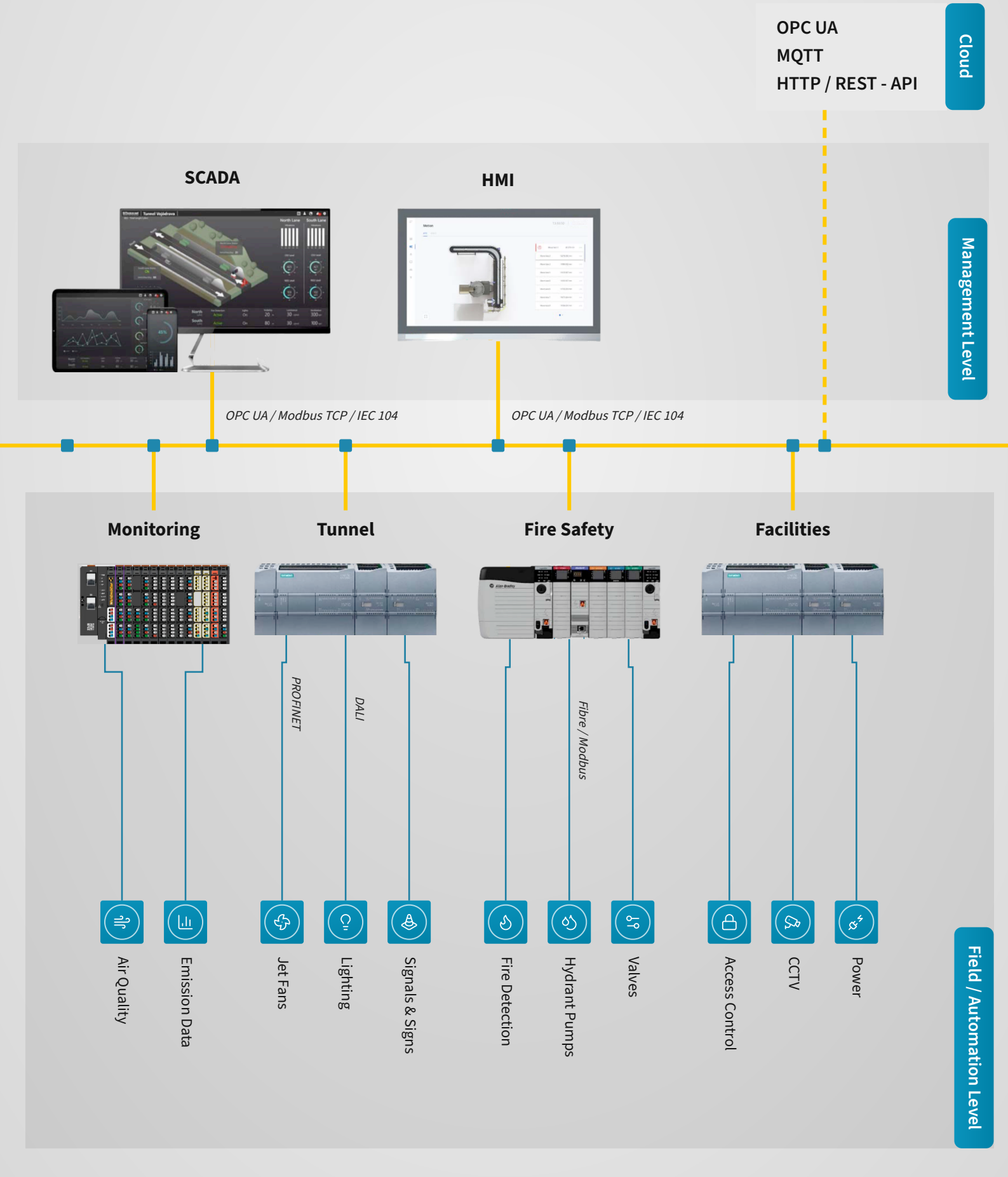
- Tunnel ventilation and air quality
- Fire detection, hydrants and pumps
- Lighting and power distribution
- Emission monitoring and control
- Security and access control
- Central SCADA and event logging



All components for smart infrastructure automation

At Segmic Engineering, we automate large, distributed infrastructure in a comprehensive, scalable, and future-ready manner. Redundant controllers and decentralized I/Os connect over fibre-optic and fieldbus networks to a central SCADA.

This architecture keeps each zone running independently while the control room sees everything — significantly reducing cabling, simplifying expansion and improving response to incidents.



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