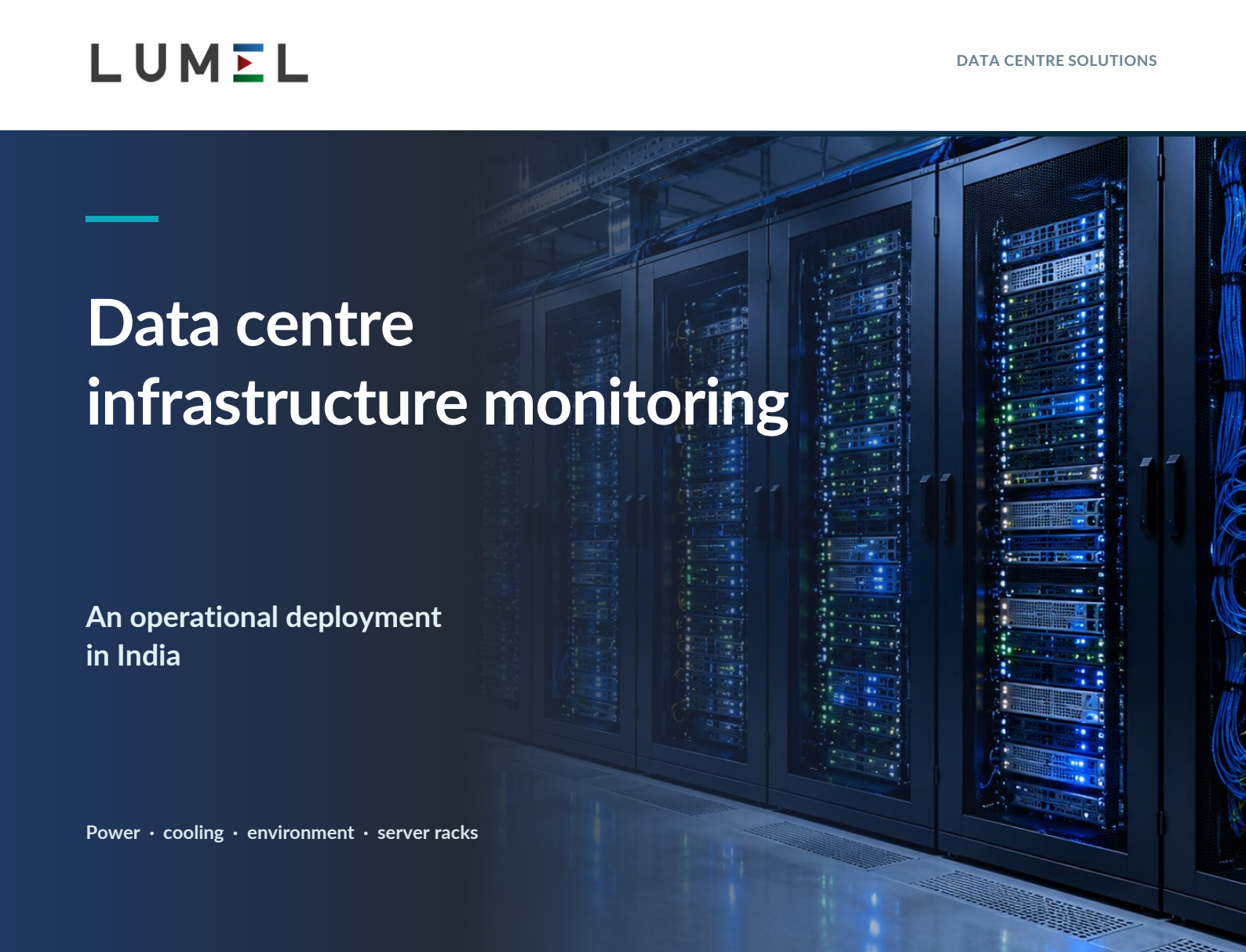




Data centre infrastructure monitoring

An operational deployment
in India

Power • cooling • environment • server racks

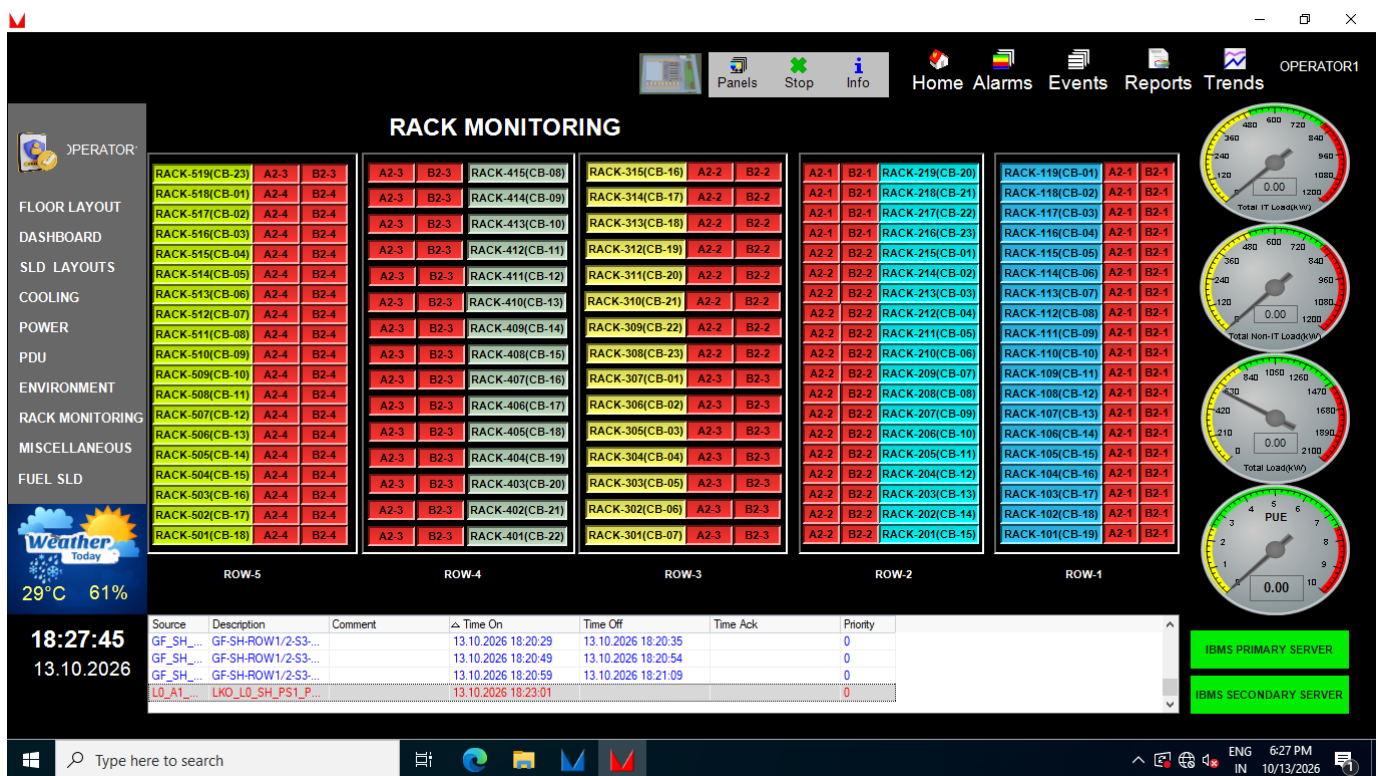
The DCIM system is already in operation at a data centre run by one of India's leading operators. The facility provides multiple independent customers with space for their servers, together with the power, cooling and technical infrastructure required to support them. Maintaining stable operating conditions calls for continuous access to up-to-date data from across the facility.

The deployed solution collects data from UPS systems and power distribution units (PDUs), CRAC/CRAH cooling equipment, temperature and humidity sensors, and server racks. Operators gain a consolidated view of equipment status, alarms and electrical loads without switching between separate applications.

This integrated Rishabh Group solution combines LUMEL and Rishabh Instruments devices with PROMOTIC SCADA software developed by Microsys. All components operate within a single architecture.

Infrastructure monitoring with PROMOTIC SCADA

PROMOTIC SCADA consolidates data from the facility's technical systems and makes it available to operators in real time. Its visualisations let users move from an overview of the data centre to a particular zone, row of racks or individual device.



Live PROMOTIC SCADA application: server rack status, IT and non-IT loads, and power usage effectiveness (PUE).

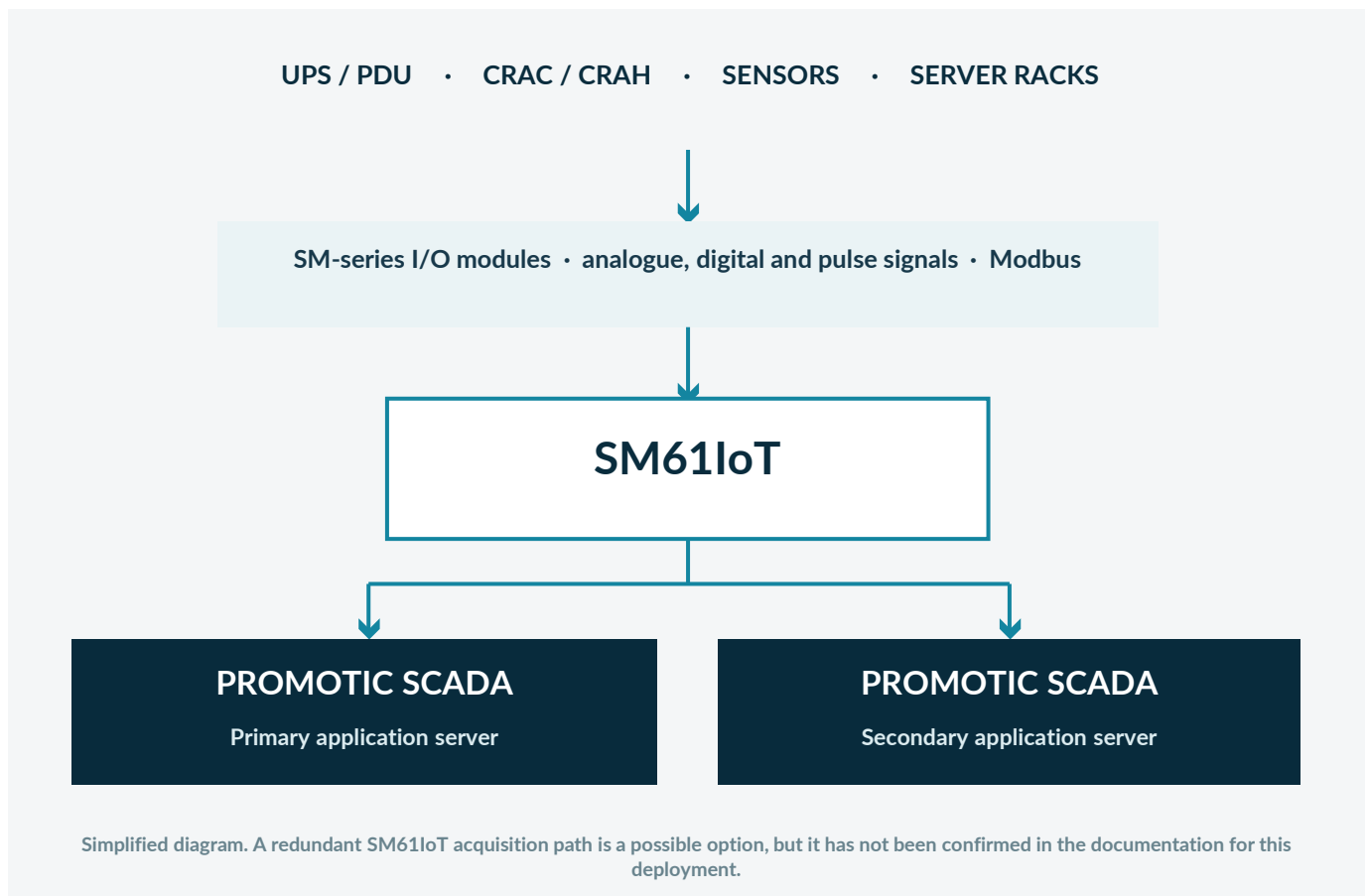
The monitoring screens show data from UPS systems, PDUs, cooling equipment and temperature and humidity sensors. The rack view helps pinpoint the location of an abnormal condition within the facility.

Alarms and events are recorded with timestamps. Reports and historical trends help identify the causes of deviations, assess energy use and plan maintenance activities.

Live operating parameters and historical infrastructure data are available in the same application.

System architecture and monitoring continuity

Data from facility equipment is acquired by I/O modules and the SM61IoT data logger, then passed to the PROMOTIC SCADA supervisory layer. The installation described here uses two application servers: a primary and a secondary server.



The primary and secondary SCADA servers improve the resilience of the visualisation and monitoring layer in the event of a single-server failure. Open Modbus TCP and SNMP communication allows integration with equipment from different manufacturers and supports future expansion as the facility grows.

Hardware and software in one integrated system

The integrated Rishabh Group system covers the entire data path, from measurement through to supervision. Devices offered by LUMEL and Rishabh Instruments work with Microsys PROMOTIC SCADA software. This shared architecture supports data acquisition and archiving, visualisation, alarms and analysis of the facility's operating history.

100

Up to 100 Modbus devices
per SM61IoT

2,500

Up to 2,500 polled
values

8 GB

Local data logger
storage

SM1/S4AI, SM4 and SM5 modules handle analogue, digital and pulse signals, while the SM61IoT collects readings and makes them available over Modbus TCP. PROMOTIC SCADA displays device status, IT loads, PUE, alarms and measurement history. RishFlex power supply modules provide power to the equipment in control panels.

Benefits for data centre operators

Continuous monitoring of critical power, cooling and environmental parameters.

Alarm and event logging helps identify abnormal conditions promptly.

Real-time visibility of IT loads and power usage effectiveness (PUE).

Historical data and trends support analysis and maintenance planning.

Planning a similar solution for your data centre? Let's discuss monitoring and integrating your infrastructure.