

# Cell Site Management System



The Remote Instruments Cell Site Management System (CSMS) is an open, versatile and expandable remote monitoring and control system for all cell site's equipment; designed to meet the mobile network operator's demand for continuous operation, rapid response while containing maintenance cost.

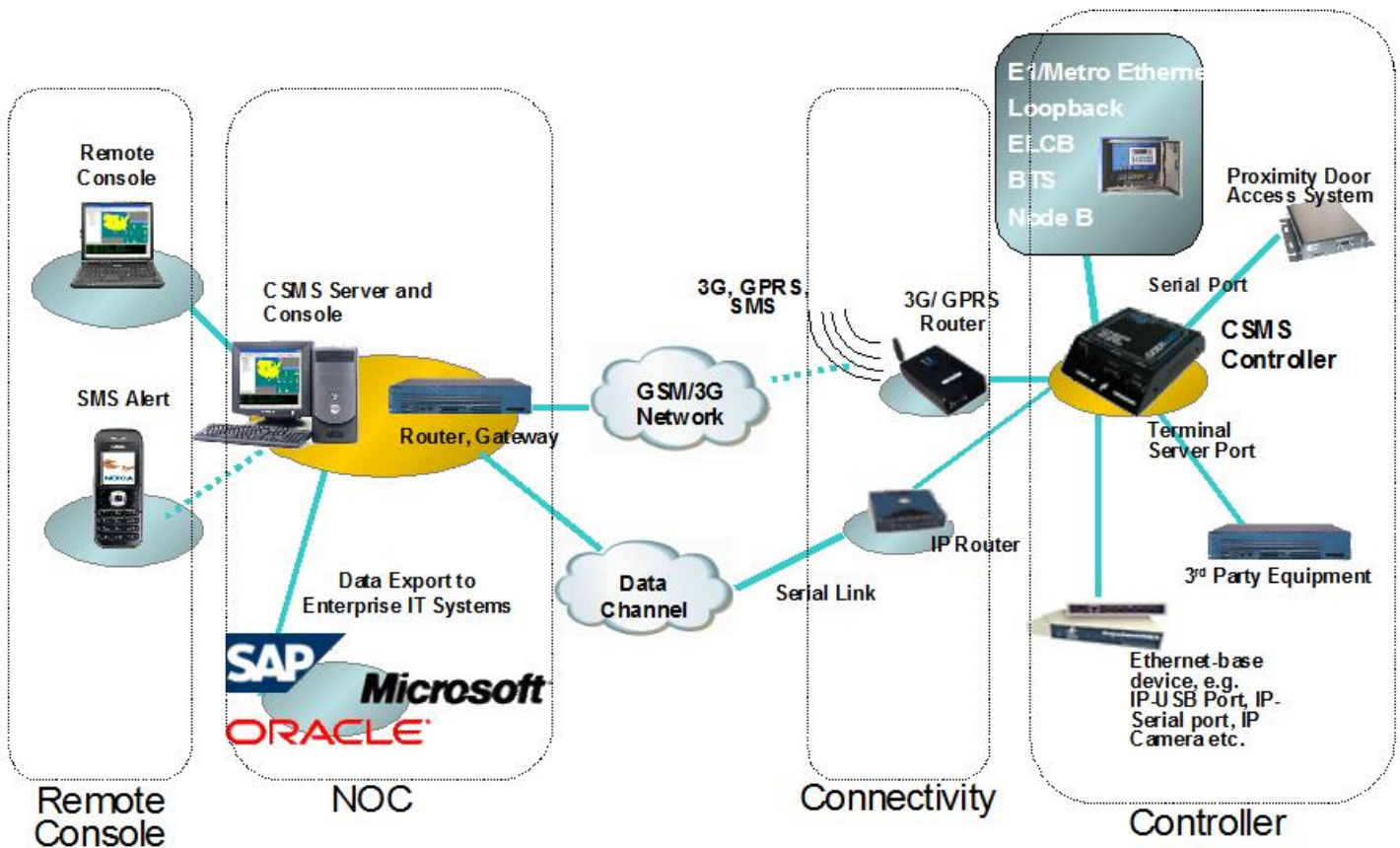
Highlights of the CSMS includes:

- Based on open standards
- Support varied deployment options including 3G, GPRS, SMS and fixed-line IP network
- Integrated Ethernet switch ports and terminal server ports
- Graphical console with layered maps, color-coded status and event logs
- Sophisticated trending and alert options
- Remote consoles for multi-site NOC
- Built-to-measure for each customer

The CSMS enables you to

- Monitor and control power and communications equipment
- Conduct E1 loopback, remote reset ELCB, BTS and Node-B power cycle testing
- Remotely access the console port of a device
- Connect a surveillance camera, proximity card access system, etc.
- Access and archive critical information about operational status, diagnostics, and alarms

It is a cost-effective system that's robust, scalable and future-proof as a platform to expand the scope of remote management beyond what you envisage today.

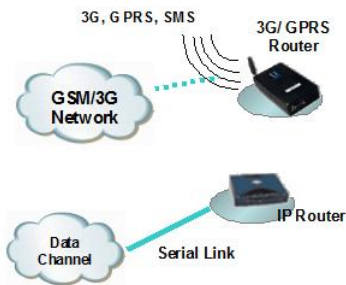
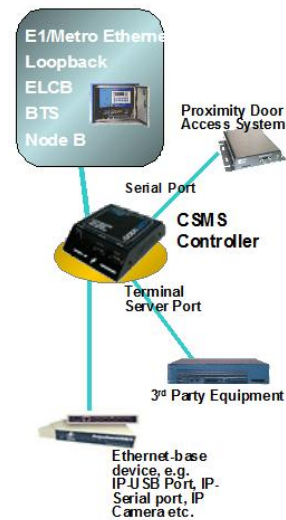


For the purpose of clarity, the CSMS can be seen as made up of four layers.

### Built-to-measure Controller and Peripherals

Customised to each customer's needs, the controller is a compact 19-inch rack-mountable equipment with Ethernet and serial ports and a series of digital and analog inputs-outputs. Further, the embedded software can be enhanced to meet specific needs such as protocol conversion or remote monitoring.

Peripherals includes, but are not limited to, E1/Metro Ethernet loopback, remote reset ELCB, DC power cycle.



### Connectivity

The CSMS is largely network-neutral and adapts well to any 3G/GPRS/GSM mobile networks or a fixed-line or radio-link IP network.

### Network Operation Centre and Remote Consoles

The CSMS Server, being the nerve centre, makes the CSMS system user-friendly and scalable by providing these advanced features:

- Supports multiple remote consoles for 24x7 monitoring
- Multi-level topographic maps and colour-coded status to easily identify fault
- Custom-built device view and custom menu to integrate 3rd-party devices and software
- Logs and event handlers to automate responses to fault
- Many alert options including email, SMS, audio alarms
- Trending with threshold alarms to pre-empt potential faults
- Data exports for detailed analysis
- User-based privilege to secure access to the CSMS Server
- Multi-threaded poller to ensure timely monitoring of all sites

For more information about the CSMS, contact

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