OSIRIS™ (OSI Remote Information System) is a versatile and innovative, secure remote information and metering unit, designed for the electric power, oil & gas, communications and water industries. The industry’s first Linux-based Remote Terminal Unit (RTU), OSIRIS is a low-cost, flexible and expandable next-generation RTU, with unsurpassed features and functionality.

Using a small form factor, OSIRIS is an ideal electrical power distribution/pole-top Telemetry Unit, for both retrofit and upgrade projects. Additional applications include: protocol conversion, data concentration, mailbox RTU, equipment health monitoring and acting as an automation platform.

With built-in security features to deliver secure communications for critical utility operators, OSIRIS is capable of communicating securely, over Ethernet, modem lines, microwave radio, cellular modems, dial-up and other serial and IP-based communication technologies.

OSIRIS features several standard peripheral interfaces to allow expansion for new connections and devices. These interfaces include: 10/100BaseTX Ethernet, RS232/RS485 serial, USB, CompactFlash and CANbus (for I/O expansion). OSIRIS functionality is expandable with off-the-shelf components. Serial expansion can occur with standard terminal servers. Ask today about the OSIRIS trial unit program.

Salient Features

- Linux Operating System
- Standard Linux TCP/IP Stack supporting multiple concurrent sessions over each Ethernet Port
- Data concentration and protocol conversion of up to 5,000 data points and 150 IEDs/RTUs
- Maintenance through telnet, SSH or dedicated maintenance port
- Terminal based protocol and communication diagnostic tools to allow configuration and debugging of problematic channels (no proprietary software required)
- Supports storage of up to 6.4 million point changes in the event of master communication failure
- Easily supports security requirements
  - VPN, SSH and SFTP
  - Syslog
  - Integrated Firewall
  - Cryptographically signed upgrade files
- Fully compliant IEC 61131-3 PLC Programming Support
- Resident Web-enabled Configuration Utility
  - Configuration validation and easy error location
  - Remotely view OSIRIS log files for auditing purposes
  - View and control point data on OSIRIS
- Time Synchronization via SNTP, NTP, IRIG-B or Protocol
- 1ms SOE data
- Compact Size: 10 x 8.69 x 1.63 inches (25.5 x 22 x 4.2 cm)
- Base Unit I/O expandable up to 10X using OSIRIS XM™ Expansion Modules
  - Maximum 176 Digital Inputs, 88 Digital Outputs, 88 Analog Inputs
OSIRIS™ General Specifications

Main Processor System
- 400 MHz Motorola PowerPC™ RISC Processor
- 32 Mbyte Flash Memory
- 64 Mbyte SDRAM
- Real-time Clock (2 ppm stability)

Communications
- (2) 10/100BaseTX Ethernet ports with full TCP/IPC stack
- (2) USB ports for memory and device expansion
- (2) RS232, RS 485 serial ports (baud rates 300 bps to 56 kbps)
- (1) RS232 port for maintenance
- (1) CANbus interface for I/O expansion
- (1) CompactFlash for memory and device expansion

Power Requirements
- 20V – 60V DC
- Optional External Universal Power Supply

Operating Conditions
- Operating Temperature: -40° to 80° C (-40° to 176° F)
- Utility Grade: meets IEEE C37.90.1, IEC 61000-4-4

Analog Inputs
- (8) optically isolated 16-bit DC analog inputs
- ±1V, ±5V, ±10V, ±1mA, 4-20mA inputs, or as specified

Digital Inputs
- (16) optically isolated digital inputs
- 12, 24, 48, or 125V bi-polar wetting voltage
- Optional internal wetting voltage
- 1ms time stamp resolution with configurable COS (Change of State) and SOE (Sequence of Events) recording

Digital Outputs
- (8) clean contact Form C relay outputs
- Pulse on or hold
- Select Before Operate (SBO) functionality
- Maximum constant current: 6A
- Maximum momentary current (5 sec): 10A
- Maximum switched current: 10A @ 240VAC, 8A @ 30VDC
- Maximum switched voltage: 240V AC/DC

Protocol Compliance
- DNP 3.0 over IP & Serial (slave/master)
- Modbus over IP & Serial (slave/master)
- IEC 60870-5-104 over IP (slave)
- IEC 60870-5-101 over Serial (slave)
- Telegyr 8979 (slave)
- DNP over UDP
- SNMP

Expansion Capability
- OSIRIS XM Expansion Module offers 16 Digital Inputs, 8 Digital Outputs and 8 Analog Inputs
- Up to 10 Expansion Modules per OSIRIS

Mounting
- DIN rail
- Panel
- Custom enclosures available

Options
- TASE.2 (ICCP)
- SEL (Master)
- IEC 61850
- Additional protocols as requested
- SMS/Email alerts

OSIRIS Product Overview
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Product specifications in this document are subject to change without notice.