reliable technologies

Media Switch
ST Unit

The best-seller CADMOS solution for ATC data integration and routing

Highlights

- Multiple serial lines synchronization
- **6 independent sections**
- **Multiplex** features
- **Link Quality analyzer**
- **Central** and **remote** control
- **Standard and legacy protocols adaptation**
- User-configurable **packets filtering**
- **Worldwide operational**
- **SNMP**

PRODUCT OVERVIEW

The ST unit (Switching and Tunneling) is the equipment of the Media Switch family specifically designed to act as an ATC Router, performing switching multiplexing and tunneling functions between serial ports and/or Ethernet ports.

Manage up to 24 serial ports and up to 12 independent Ethernet/Fiber ports

Operate with different serial protocols

Integrate advanced remote control functions by FTP, WEB server, SNMP,or proprietary NMS.

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OPERATIONAL CONCEPT

The ST unit, connected to a local area network, acts as a data communications server providing wide-area connectivity. The ST unit supports a wide range of WAN protocols, allowing several different clients to access the data communication server simultaneously.

The ST unit provides up to 6 independent sections, each one with two 10/100 Ethernet ports and 4 high-speed WAN serial ports, thus acting as an intelligent WAN/LAN bridge, a WAN/LAN gateway device, or a remote WAN connectivity unit.
Moreover, the SNMP server functionality of the ST unit allows any workstation on the LAN to obtain detailed information from the unit.

Thanks to the modular design of the ST unit, it can be easily expanded supporting additional communication protocols, thus preserving the user's investment upon technological changes.

FLEXIBLE DESIGN

The unit is made up of max 6 independent sections: for each one, the communication protocol can be defined, as well as the operating characteristics of each serial line.
The ST unit can be configured with 1 to 6 boards, which can be used for independent processing or making them cooperate.
Switching/Tunneling functions are fully user-configurable via Remote Control software.

ENCAPSULATIONS

The unit manages data exchange between serial devices and/or Ethernet LAN, by using different encapsulation protocols.
Each section interfaces the serial remote device by using the relevant protocol. Data are extracted and can be addressed to another serial or Ethernet port of the same board or a serial/Ethernet port of another board.

RELIABILITY & MAINTENABILITY

ST units plus are:
• highly reliable: designed to achieve a high MTBF, and all its parts can be redundant;
• optimized maintainability: with redundant modules, hot-swap interfaces, obtaining an extremely low MTTR (Mean Time to Restore) and a network downtime close to zero.

Synchronization

The ST unit set for Serial Data Synchronization allows to interface WANs which differ in the protocol type, standard (V.24, V.36, etc.), baud rate, and/or timing (also using the internal clock).
Advanced user-configurable filtering functions can be used to redirect or remove specific data packets.

Multiplexer

Used as MUX, the ST unit can connect remote devices, matching each one for protocol, baud rate, electrical standard, and/or timing.
The connection can be made by LAN or fiber, based on the distance and installation requirement.

Centralization

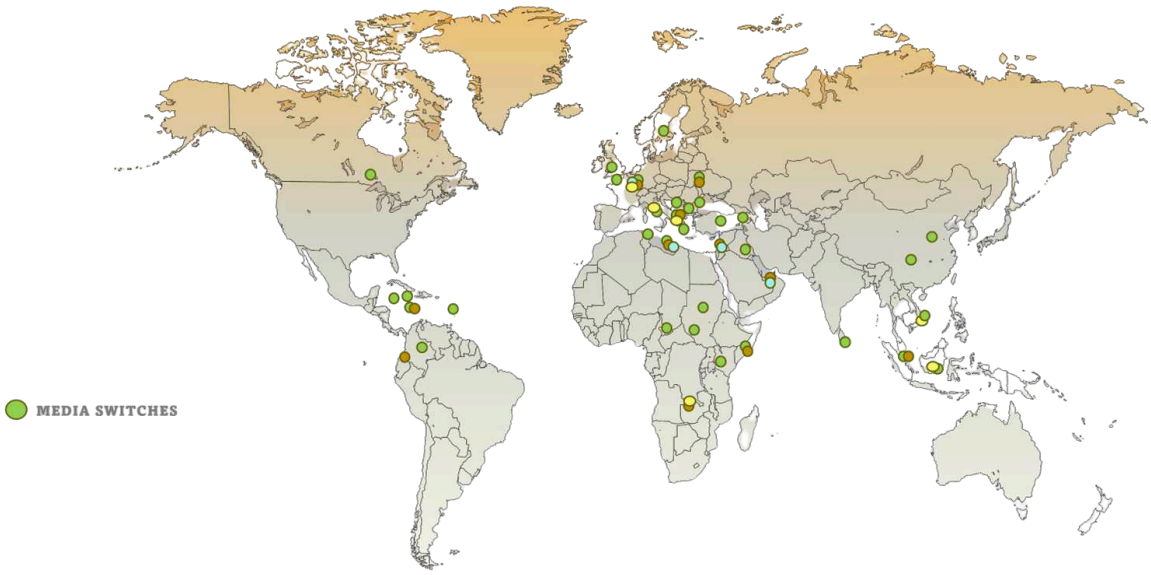
ST unit is also the ideal solution to centralize serial devices to a remote control center.
Different kinds of devices can be simultaneously connected, matching each one with the relevant serial line characteristics.
Data are multiplexed on the IP network connection to be sent to the remote control station.
The unit is fully remotely configurable, by using FTP, WEB, SNMP features, or proprietary NMS.

SPECIFICATIONS

Operational:	The unit manages several serial multi-standard lines, performing the following functions: • serial-to-serial, • serial-to-ethernet, • switching/tunneling.
Max configuration:	Up to 6 SC-MCF boards, each one able to interface: • up to 4 V.24 or 2 V36/V.11 serial ports • up to 2 Ethernet ports 10/100Mbps.
Serial port characteristics:	Serial ports can be set for a different type, standard, baud rate, or timing: • Synchronous / asynchronous • Baud rate or timing are user-configurable (internal clock generator available) • ITU-T standard: V.24, V.36 or V.11 (X.21)
Remote setting:	Via WEB server.
Operation:	Local: limited to monitoring functions, by frontal panel LEDs. Remote: configuration and operation monitoring, via LAN.
MTBF:	>500.000 hours for each data channel (MIL-HDBK-217F Part stress)
Power distribution:	Power distribution relies on two power supplies, in redundant configuration
Mains:	Typical: 220 Vac / 50 Hz Max range: 90 to 264 Vac
Power consumption:	0,16A (max configuration)
Dimensions:	Height: 176 mm (4 U rack 19") Width: 482 mm (19" rack mount) Depth: 250 mm (mainframe) max size 280 mm

REFERENCES

MediaSwitches are the long time best seller of the CADMOS products, worldwide installed in several different contexts and with different third parties systems integration: a reputation based on adaptability, robustness and performances.



RELATED SERVICES

- 1 year warranty, extendable
- Set-up and configuration
- Training
- Stock availability
- Obsolescence management
- Remote and on-site support
- Corrective and evolutive management
- Integration with third parties systems

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