Selex ES

A Finmeccanica Company

SENTINEL DESK ACCESS UNIT +

Embracing best-of-breed Commercial Off-The-Shelf (COTS) technology, the Desk Access Unit+ (DAU+), whilst providing the same functions as the DAU, includes a microprocessor board capable of hosting Sentinel software sever applications. The DAU+, when hosting the Sentinel Soft Switch is, therefore, the only network control element needed to support voice and data communications in a small command post.

The Sentinel DAU+ exploits robust COTS Ethernet switches to provide 10/100Mbps Ethernet connections for Internet Protocol (IP) data and Voice over IP (VoIP) devices, and up to 1 Gbps for interconnectivity. These user devices can be connected to a free port and will readily function without any pre-planning.

THE DAU+ PROVIDES:
- Fast deployment tactical voice and data LAN connectivity
- Converged voice and data (separable if required)
- Optical and copper connections
- High capacity, leading edge technology
- Self-organising, plug-and-play redundant topologies
- A microprocessor platform to host Sentinel applications

A DAU+ can support six Power over Ethernet (PoE) devices, such as the Sentinel VoIP phones and Terminal Adapters. This allows quick deployment and avoids the overhead of separate power distribution. There are also five additional non-powered ports for other devices, such as data terminals.

The Sentinel DAU+, deployed along with DAU's, can form a larger Local Area Network (LAN), handling up to 300 voice terminals. Such a system is self-organising and will adapt to any routing topology to automatically exploit redundancy and resilience, especially if deployed in a ring configuration. The use of legacy ISDN and analogue phones within the network is achieved through the use of ISDN and analogue terminal adapters.

The microprocessor platform in the DAU+ is preconfigured to host applications such as the Sentinel Soft Switch, giving the VoIP Gateway functionality or the Sentinel Soft Conference Bridge for handling multi-party calls. It has onboard flash memory and operates with the Linux operating system to allow quick start-up. There are USB and VGA connections on the DAU+, which allow direct access for pre-configuration and maintenance.

Voice and data switching

The key benefits are:

- 1Gbps fibre and 10/100Mbps copper ports
- Configured to support voice and data
- Auto-sense of data link rate and cable format
- SNMP management

Processing platform

- Intel ULV Celeron M 1GHZ
- 1Gb RAM
- 2Gb compact flash

Implementation value for money

The Sentinel DAU+ gains the following from the use of best-of-breed
COTS technologies:

- Inexpensive initial provision and update costs
- Low set-up costs, low user resource requirements
- Minimal training requirements
- Readily expandable system

Interfaces for the sentinel desk access unit+

- 11 x 10/100Mbps copper ports (6 with PoE, e.g. for Sentinel VoIP phones and terminal adapters)
- 2 x 1Gbps fibre optic ports
- Auto-ranging 110V-230V AC power 50Hz/60Hz

Features

- Small, rugged, packaged and stackable
- Single or multimode fibre support
- Fully non-blocking ethernet switch
- Redundant link management
- SNMP
- QoS
- Equipment and link status indications

Climate/environment

Temperature:
   - Storage -40°C to +70°C
   - Operating -40°C to +55°C
Humidity 0-95% RH non-condensing
Driving rain 200mm/hr
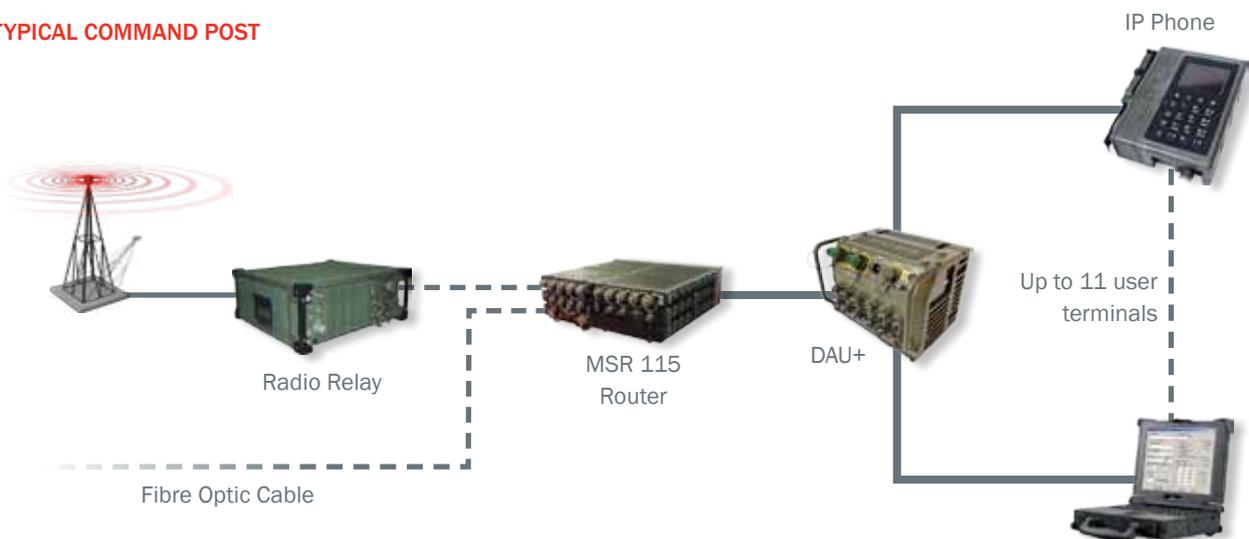Dust/sand $1.1g/m^3$ for 3 hrs
Snow $0.53kg/m^2/s$ at 13m/s for 30 mins

Induced environment

Vibration $0.02g^2$/20Hz to 500Hz
Shock 15gn 11ms half sine
EMC Mil Std 461 E

TYPICAL COMMAND POST

IP Phone

Radio Relay

Fibre Optic Cable

MSR 115 Router

DAU+

Up to 11 user terminals