PERSEUS

PERSEUS Wired Remote Dispatcher
WDS-310 - WAN Dispatcher Station

Simulcast

TETRA

LAN

Optical Fiber

WiFi

WiMAX

Satellite

Internet

UMTS

SELEX Communications

A Finmeccanica Company

PERSEUS Wired Remote Dispatcher
WDS-310 - WAN Dispatcher Station

This product line is part of the PERSEUS Wired Remote Dispatcher Stations provided by SELEX Communications for dispatching operation in a TETRA system. These stations run the dispatcher application with full functionality and are thought for a single-operator arrangement. Each WDS Station acts as an autonomous dispatching system.

Professional tools for a professional dispatching

The workstation is provided with a professional set of audio-accessories allowing a clear communication with personnel on the field and a comfortable management of audio calls, that are separated on two different loudspeakers distinguishing between monitored calls and active calls (the ones the operator is engaged in).

The station is given also the possibility to record the analogue signal of the ongoing calls, separating, if needed, the operator track from the voice tracks incoming into the Dispatcher Station.

In addition is possible to deviate the audio signal from the loudspeakers to a headset for a better privacy for reserved speeches

GENERAL FEATURES

This single Station is able to supply all the dispatching and administrative services foreseen by the Dispatcher Application:

- Call management (voice and data)
- Supplementary PMR services
- Dynamic group management
- Subscriber management.

The WDS-310 can manage up to 16 voice calls at a time.

In addition to the voice calls also data calls can be managed at the same time, resulting in the following table, summarizing the total (managed voice/data calls) capacity of the dispatcher:

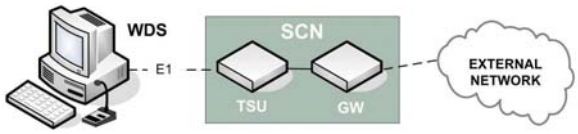
MAX CAPACITY		
Voice calls	Data calls	
16	32	1-slot
	16	2-slot
	8	4-slot

Secure identification and authentication

For a more personlized and effective access task (with respect to the flat Windows user-name/password paradigm), it is possible to add a smart card reader in order to identify/authenticate a Dispatcher Operator before accessing the TETRA system's resources. This solution allows also the creation of different access profiles depending on the customer needs.

Remote Connection

The WDS has to be connected to an SCN (Switching Control Node) in order to ask for the dispatching services and to receive information and data. The connection with the SCN is achieved by means of an E1 link.



Even in the case of more WDS Stations present in the same control-room, they are independent one another (they do not constitute a multi-operator environment).

Composition

The WAN dispatching station (WDS) is based on the following industry standard personal computers running under MS-Windows XP Professional operating system.

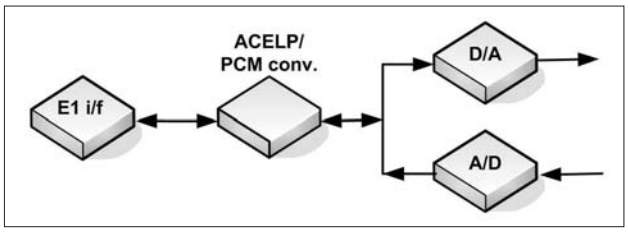
The WDS is configured in the version named WDS 310, comprised of two main items:

1) Standard desktop mini-tower PC hosting the functional components needed for the data/audio traffic processing.

2) Dispatcher Audio Console (DAC)
external device designed to provide audio-accessory (headset, microphone, loudspeakers, etc.), analogue recorder and Push To Talk connections.

The main architectural components are:

- E1 link interface, which interfaces the WDS to the external TETRA SCN equipment;
- Voice processing, which makes voice traffic processing by means of DSPs, translating ACELP code used in TETRA into PCM and viceversa
- D/A-A/D block used to output/input voice streams to/from audio accessories connected to the DAC device.



In the following table the items that can be chosen in the composition of the WDS are listed:

ITEM	QUANTITY	OPTION
E1 link	1	75 ohm
		120 ohm
Dispatcher Audio Console	1	standard
		DAC with Voice Rec. I/F
		DAC with Voice Rec. I/F and volumes control
Monitor	1	Monitor 17" CRT
		Monitor 17" LCD
		Monitor 19" CRT
		Monitor 19" LCD
		Monitor 21" CRT
		Monitor 21" LCD

Typical composition of WDS operator

TECHNICAL DATA

The WDS-310 is provided with a power supply characterized as following:

Electrical power:	220 VAC ± 10 %
Frequency:	60 Hz
Maximum power consumption:	400 W

Environmental specifications

The WDS-310 is compliant to the following environmental characteristics:

Operational:	ETSI ETS 300 019-1-3 class 3.1
Storage:	ETSI ETS 300 019-1-1 class 1.2
Transportation:	ETSI ETS 300 019 1-2 class 2.2
Electromagnetic compatibility:	EN 550022 Class A

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