ElettraSuite Dispatch Console

Management, control and monitoring of Your
TETRA radio communications, easily and fast

tetra solutions

dispatch consoles and applications

™ADAPTANET®
IP solution

ELETTRA
SUITE

SELEX
Communications
A Finmeccanica Company

ElettraSuite Dispatch Console

Seamlessly integrated into ElettraSuite ADAPTANET® IP system, the dispatch console provides easy and fast interface between the TETRA operator and fleets of subscribers for the management/monitoring and control of radio communications and the flow of information's.

The **ElettraSuite IP Dispatcher** is the sub-system that provides a dispatching operation into an ElettraSuite ADAPTANET® network. It supplies a complete set of TETRA features, such as voice and data communications, dispatch management, graphics and database information. This dispatch and applications have been designed and developed to offer the maximum simplicity and ease of use to the operator. It supports organisations that operate in critical communications environments, such as PSS, utilities, oil & gas and transport, bringing interoperability to offer the benefits of cost savings.

Simplicity and user-friendly interfaces

The Dispatcher IP is an open window into ElettraSuite ADAPTANET® IP networks. Its simplicity and flexibility is composed also from the following base elements:

1. A commercial PC with Windows OS, hosting all the functional components needed for audio and data traffic processing
2. *Dispatcher Audio Console (DAC).* This is an external device designed to handle the TETRA voice streams comprising of audio accessories such as desktop microphone, headset, handset and foot-PTT (Press-To-Talk).

Fast and cheap applications

The standard application is PC-based, easy to use and has a modern graphical interface. The intuitive windows enable:
- Management, supervision and control of radio communications calls with users on field (Dispatching).
- Administrative management of users and groups (Subscriber Management).

Touch-screen facility

The GUI (buttons and other commands) is designed to simplify operation with gloved hands when in use in the field.

API & CUSTOMISATION

The *Application Programming Interface (API)* is an open interface that can be used to enhance the application with customised contents and additional features. Thanks to the API interface, the SELEX Communications Dispatcher Console can be extended by means of standard software packages and hardware cards typical of the computer telephony world. The API provides an interface hiding proprietary boards installed into the workstation. This supports either third parties or customers when developing their own enhancements or, indeed, the complete dispatching application.

FUNCTIONS AND FEATURES

The Dispatcher operator uses a set of functionality, implemented through a set of software components. These are running in ADAPTANET® network elements as Dispatch Console, inside the Server Management Node, BS Node-TS and are logically interconnected via TCP/IP.
The main components are:

- *User GUI:* the graphical user interface to allow the operator use the DS features
- *Dispatcher:* allows calls control and permits to make/receive calls, SDS, etc
- *Subscriber database server:* the server that allow the access to the database of TETRA users
- *Alarm:* the component for alarm notification

The ElettraSuite IP Dispatcher Console supports the following services:
- Speech and data calls
- Short Data Service (SDS)
- Supplementary services
- Simultaneous sixteen calls management
- Subscriber management
- Logging of the dispatcher operations.

Speech and data calls

The dispatcher application allows the operator to set-up and clear the following kinds of calls:
- Individual call
- Group call
- Circuit data call.

Circuit data calls can be made in:
- Unprotected mode at one of the following selectable speed:
  - 7,2 Kbps (1 slot)
  - 14,4 Kbps (2 slots)
  - 21,6 Kbps (3 slots)
  - 28,8 Kbps (4 slots)
- Protected mode at one of the following selectable speed:
  - 2,4 Kbps (1 slot)
  - 4,8 Kbps (2 slots)
  - 7,2 Kbps (3 slots)
  - 9,6 Kbps (4 slots).

Short Data Service

The Dispatcher Console allow the following kinds of SDS:
- Predefined individual short data message
- Predefined group short data message
- Individual free text short data message
- Group free text short data message
- SDS text with delivery notification

Supplementary Services

The Dispatcher Console application allows the operator the issuing of the following supplementary services:
- Pre-emptive priority calls
- Call authorised by the Dispatcher
- Group patching
- Subscriber monitoring
- Discrete listening
- Forced call termination
- College call
- Group management
- Subscriber Profile management

Simultaneous sixteen TETRA calls management

The dispatcher application allows the monitoring of up to sixteen simultaneous TETRA calls (either individual or group calls). The calls to be monitored are easily selected from the ongoing calls window. Call monitoring includes the capability from the dispatcher position to control the volume of any calls among those being monitored.

History window

For a management review of past calls, history folders are provided inside a dedicated window:

- The Individual Call history folder that has a record of the last individual calls made or received.
- The SDS history folder that has a record of the last SDSs sent or received. Moreover there is an area where it is possible to display the text or the code (for status messages) of the selected SDS message.
- The Alarm history folder that contains a record of the last alarms received

Encryption

The application provides a dedicated window for the selection of the key to be employed in an end-to-end encrypted call. The Dispatcher operator can choose a different key for the individual and group voice calls. Also Circuit Data calls can also be encrypted.

Packet Data Context

It is necessary to obtain an IP address in order to perform Packet Data operation (for example, to run Group Management services).

Application features

- One active Voice/Circuit Data call
  - Group Call (Half Duplex or Broadcast) or Individual call (Half or Full Duplex).
- Can store into history window the last incoming/outgoing calls, SDS.
- Can show all groups into the active radio WPS and extra WPS to manage the priority of scanning and choose some of them to display into the main window of the application
- Can manage the Radio Phone Books
- Browse the DGNA subscribers created by the operator and modify or delete them.

DISPATCHER AUDIO CONSOLE

The **Dispatcher Audio Console (DAC)** is an audio device, which handles the TETRA voice streams directed to/from the dispatcher console. The DAC is connected via a physical audio path to a dedicated audio port available on a PC. The DAC provides facilities to connect audio accessories as:

- Desktop microphone
- Headset
- Handset
- Foot PTT

The DAC has hard mechanical structures that support a monitor PC up to 24" inches. It is fitted in an enclosure that provides the desktop facilities for stand-alone use (e.g., for desktop use). Also available is a 19" SU version for rack installation.

TECHNICAL DATA

Vac supply range:	110 VAC to 230 VAC
Input frequency:	50 Hz to 60 Hz
Power consumption:	Max. 40 W
Output signal level:	400 mVrms
Size (WxHxD):	Max. 450 x 104 x 315 mm
Weight (net):	4,75 kg
Cooling system:	Convection
EMC specifications:	CEI EN55022
Installation category:	II in accordance with IEC664

Environmental specifications

Operation:	ETSI ETS 300 019-1-3, class 3.1
Storage:	ETSI ETS 300 019-1-1, class 1.2
Transport:	ETSI ETS 300 019-1-2, class 2.2

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