DAMM TetraFlex® Enhanced Bridge

The DAMM TetraFlex Enhanced Bridge is a comprehensive network interconnection tool that can be used as an Inter-System Interface (ISI). It allows interoperation with a foreign system or migration of terminals from a foreign system to a DAMM system and vice versa.

Bridged communication – the traditional DAMM way
Group communication is ensured using one radio modem per group. Using radio modems, DAMM TetraFlex networks can be connected to TETRA networks from different manufacturers and even networks operating in different frequencies or technologies. Using this traditional group bridging setup, terminals remain in their own networks, but can engage in group voice communication with terminals from a foreign network. Additionally, this setup allows group SDS in TETRA.

Bridged communication – the enhanced way
The DAMM TetraFlex Enhanced Bridge also enables individual communication of terminals to/from foreign TETRA networks. The system is set up to detect when a terminal from the foreign network migrates to or is switched on within the DAMM network. Via a TETRA modem, a virtual subscriber is established in the foreign network using the same ISSI number. The modem assignment is handled within a table in the DAMM TetraFlex Enhanced Bridge software and is based on priorities and vacancies.

Maximum flexibility and user friendliness
A terminal will be deregistered in the DAMM system as soon as it returns to the foreign system to which it belongs or when it is switched off within the DAMM network. This means that the virtual subscriber which had been allocated to it will be freed up for use by another terminal.

The registering and deregistering process that happens when the terminal migrates between the networks is a smooth process, which will not be noticed by the user. The terminal interface will look the same to the user, and all operations will remain unchanged.

Benefits of an IP network
Since all connections to the DAMM TetraFlex network are pure IP, the TETRA modems and virtual TETRA modems can be placed anywhere and thereby be distributed to reduce the load on the air interface in the best way.

Additionally, the DAMM IP network works according to the TETRA standard and is thus independent of the feature set and software status of the existing system – this is superior to any standard ISI solution available on the market.

Comprehensive functionalities across networks

The DAMM TetraFlex Enhanced Bridge includes a comprehensive range of communication functions:

- Group and individual calls (simplex, duplex)
- Emergency calls
- Priority calls
- SDS text and status messages
- Caller ID
- DGNA

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Key features

ENHANCED BRIDGE

Designed for three bridging scenarios

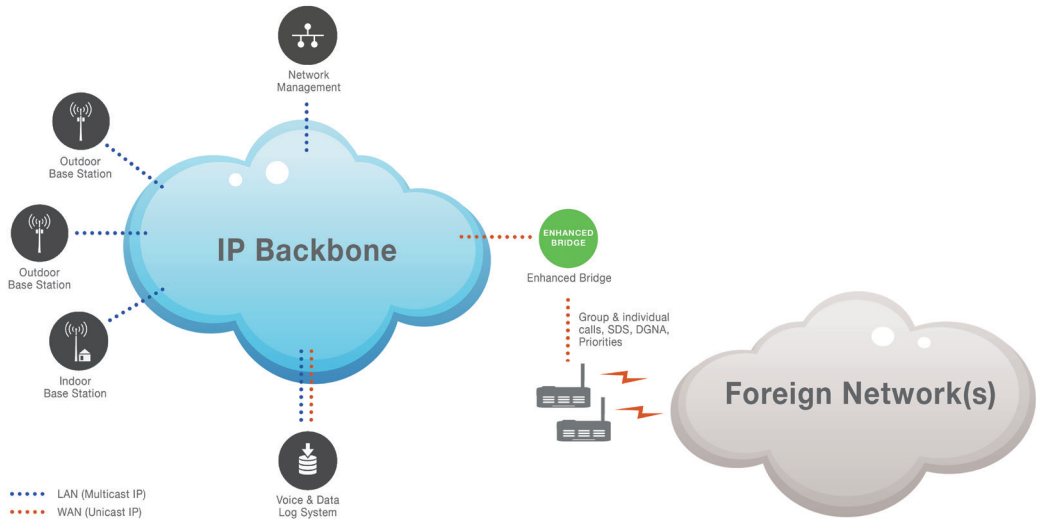
- Connection of DAMM TetraFlex networks to:
  - TETRA networks from other manufacturers
  - Networks operating in different frequencies
  - Networks operating in different technologies
- Migration of terminals to and from different TETRA systems
- Representation of terminals that are switched on in a foreign TETRA system

Features

- Group calls
- Individual calls
- Group SDS
- Individual SDS
- Status SDS
- Caller ID
- Emergency calls
- Priority calls
- DGNA

Benefits of an IP network

TETRA modems and virtual modems can be distributed in clusters and placed anywhere in the foreign networks. This reduces the load on the air interface.



Use case

A railway operator wants to implement a state-of-the-art TETRA solution on a new line, but finds himself in a vendor lock – a typical obstacle met in the rail industry.

A DAMM TetraFlex Enhanced Bridge allows the railway operator to integrate to a DAMM TetraFlex network without any updates or replacement of the existing system. He can start a slow migration process or gradually replace all end-of-life base stations with DAMM hardware.

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