



# Welcome to a World of Professional Radio Communications

The power of true scalability

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## The power of true scalability

At DAMM, we have specialized in developing future-proof, truly scalable professional radio communications solutions for over 30 years.

DAMM TetraFlex® Systems have been specifically designed to adapt or grow with you, without incurring major additional infrastructure costs. This increases functional efficiency while significantly reducing both operational costs and Total Cost of Ownership.

### Choosing the right technology

DAMM has been fully committed to TETRA technology for more than a decade. This advanced digital system will remain the industry standard for mission-critical radio communications technology far into the future.

### Future-proofing your system

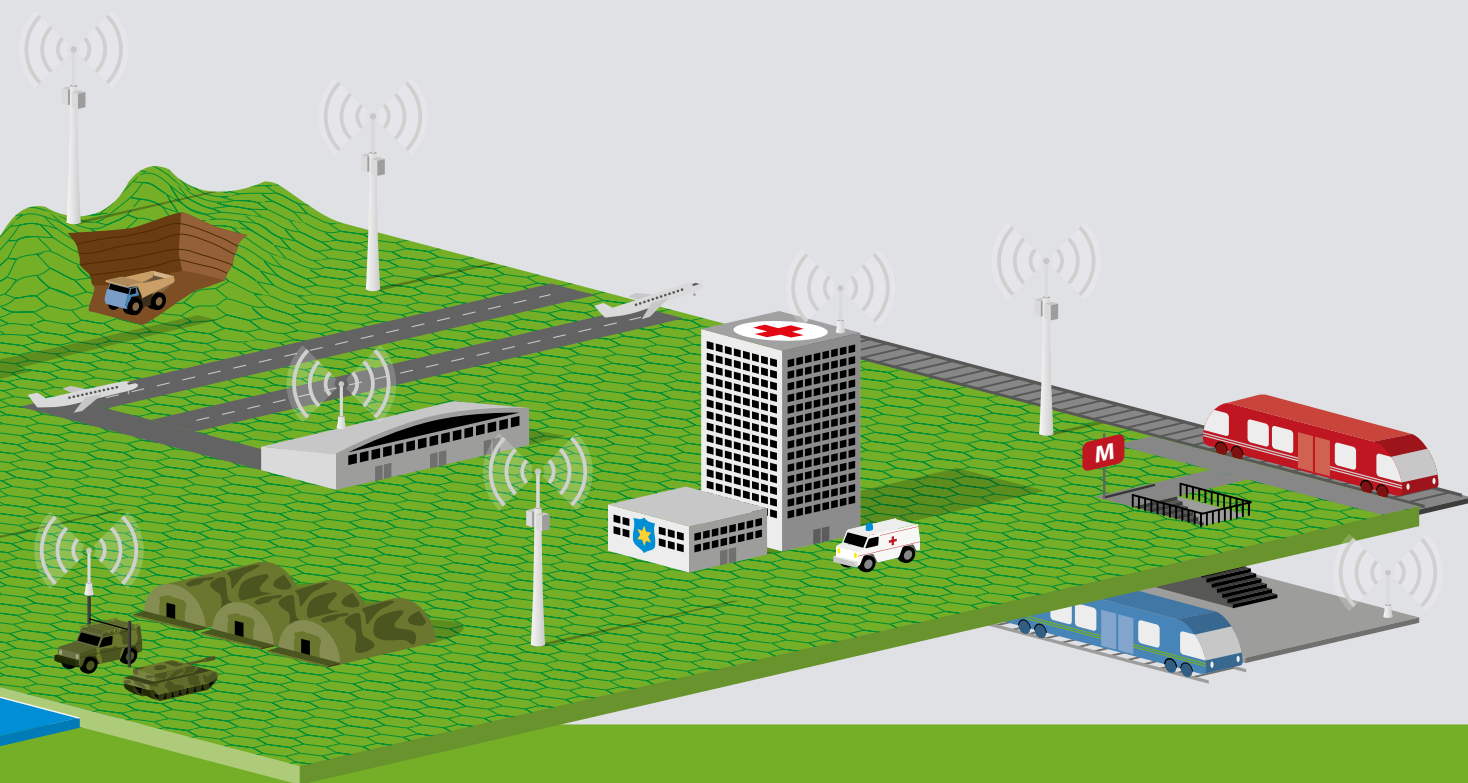
TetraFlex® Systems are fully scalable, with no limitations – however large your network may become. Our plug-and-play principle is effective in expanding network capacity to include more users - and just as easy and effective in extending the coverage of the network itself.

### Simple deployment and operation

Our 100% IP-based technology platform gives you full architectural network flexibility. You can increase capacity, extend network coverage or move capacity from one area to another, as required. You can even use our mobile rapid deployable solutions to create emergency or temporary radio networks, wherever and whenever you need them.

### Self-configuring site expansion

The DAMM TetraFlex® IP-based platform connects all network components – including base stations, dispatchers, network management tools, external gateways and other applications – in one state-of-the-art flat distributed IP architecture. No central switch is needed. Together with our intelligent TetraFlex® software, this enables simple and smooth self-configuring site expansion – even while the TetraFlex® radio communications system is fully operational.



### Ready for tomorrow's challenges

With data playing a more and more important role in daily operations, DAMM TetraFlex® Systems have been designed to support tomorrow's advanced LTE data solutions.

Off-the-shelf mobile broadband data devices can be fully integrated into your TetraFlex® System, with a high level of authentication and encryption security. This allows you to send large data files – such as pictures or video – between data devices and TetraFlex® Dispatchers as quickly and securely as a voice transmission.

### Active on the world stage

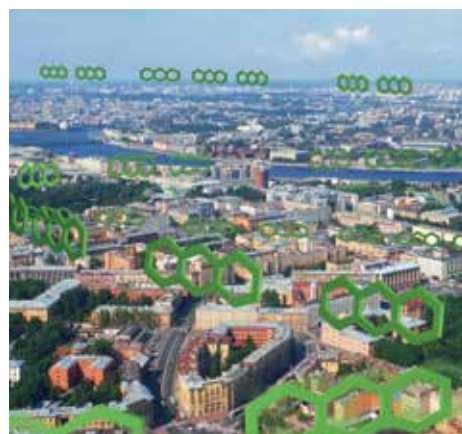
DAMM TetraFlex® Systems are currently operational in hundreds of mission-critical communications applications worldwide. Industries and sectors we work with include:

- Rail & Metro networks
- Oil & Gas industry
- Regional operators
- Military
- Public safety
- Mining
- Airports
- Utilities

We will be pleased to provide case studies of recent projects on request.

## Did you know?

Thanks to our 100% IP-based platform and flat distributed network architecture, a DAMM TetraFlex® System can easily be scaled to literally hundreds of sites. Without using a central switch.



## DAMM TetraFlex® in action

No matter how complex your system requirements may be, TetraFlex® offers you plug-and-play simplicity for easy set-up and fast deployment.



## TETRA over LTE

Benefit from coverage extension as well as data capacity for videos and pictures with DAMM TetraFlex® soft terminals. DAMM offers TetraFlex® Android Client and TetraFlex® Windows Client - a vendor independent soft terminal, fulfilling the needs for non-critical voice & data communication operating through WiFi, WiMax, UMTS(3G) and LTE(4G) networks.

Installation and configuration really couldn't be simpler. Switch on the power, enter your basic IP settings, and your TetraFlex® System is ready for operation.

Our TetraFlex® software features a unique user-friendly and intuitive graphical interface that enables you to get your system up and running quickly. Developed with flexibility, simplicity and user-friendliness at the core, TetraFlex® delivers substantial savings on training and project costs.

### **Maximum system flexibility**

The TetraFlex® System offers both high-capacity rack-based indoor base stations and compact, easy to handle outdoor base stations.

Depending on your requirements, these can be freely combined to create the ideal system for your needs.

### **Rugged performance**

With its IP65 protected housing, our compact outdoor base station is optimized for installation in harsh environments, such as on antenna masts or in tunnels. In addition, the compact TetraFlex® Outdoor Base Station supports rapid mobile deployments. It can be delivered either in a tough wheeled suitcase for maximum mobility, or housed in a 19" modular cassette that can easily be mounted in trucks or containers, for example.

### **Reliable and failsafe communication**

To ensure constant availability, even in the event of a power outage or during mobile deployment, the TetraFlex® System features full support for battery back-up, redundant controllers and carriers.

### **No single point of failure**

Thanks to the intelligent distributed network architecture, all system information is constantly replicated to all sites in the network, eliminating any single point of failure. In this way, local call and data traffic will always continue uninterrupted, with all features intact, even if one or more local sites loses connection with the rest of the network.

### **Unlimited application integration**

TetraFlex® is supplied with application gateways for easy access to the Application Programming Interface (API), Packet Data Gateways, Voice Gateways and logging API. This allows you to easily connect to third-party or customized applications.

### **Effortless interoperability**

As an independent TETRA infrastructure provider, DAMM has developed TetraFlex® for full interoperability (IOP) with all TETRA terminals, allowing you to freely choose and combine any of your favorite terminal brands.

Thanks to the system's Group Bridge Solution, TetraFlex® can also provide group calls and SDS messages between different radio systems, including independent TETRA networks, or from TETRA to analogue networks.



Indoor Base Station

## Did you know?

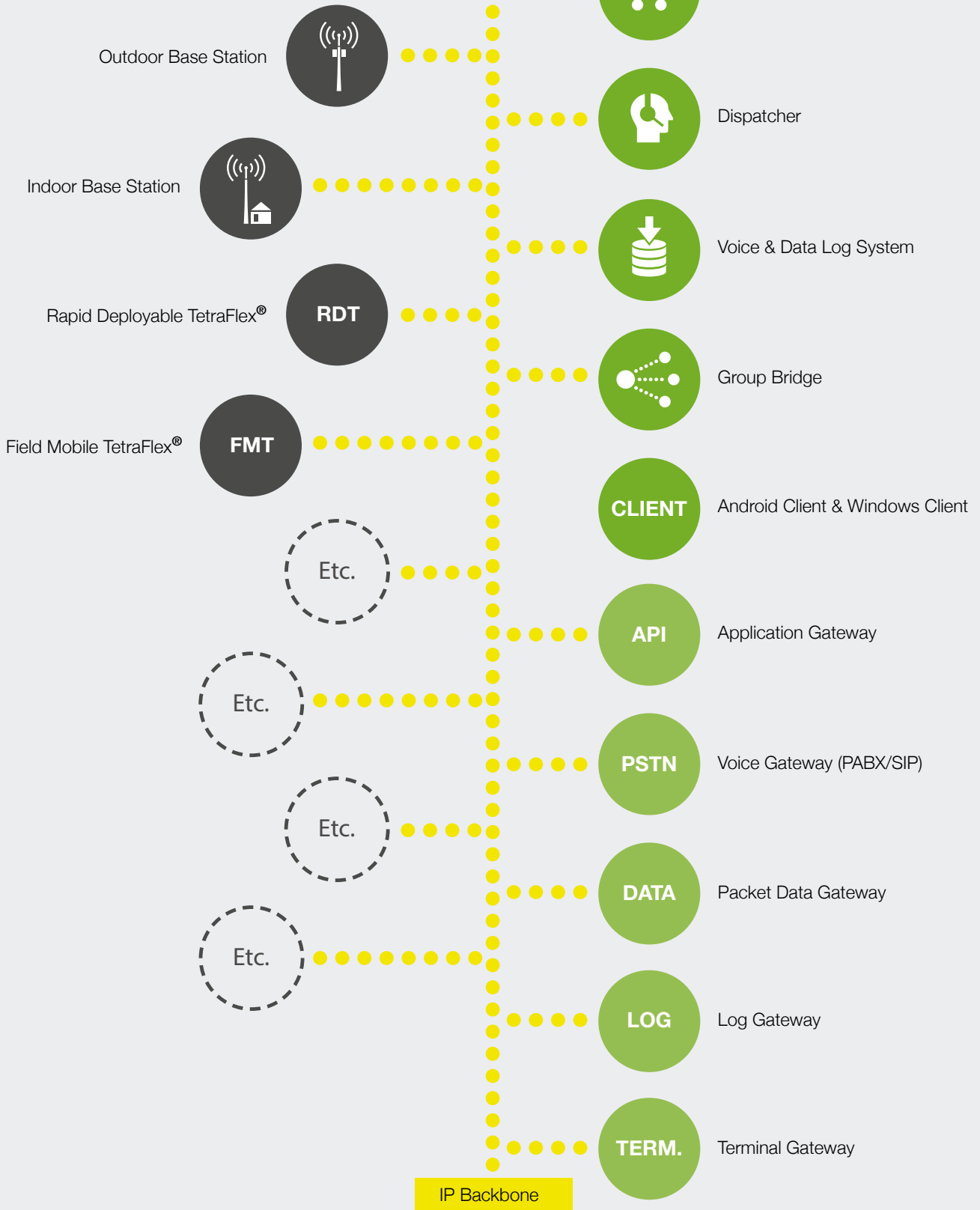
Our flat distributed IP architecture and intuitive software work together to enable effortless self-configuring site expansion. You can add or integrate all network components – including base stations, dispatchers, network management facilities and external gateways – at any time. Even while the system is in operation.



# DAMM TetraFlex® System

## TetraFlex® Outdoor & Indoor Base Stations

## TetraFlex® Applications & Gateways



## Life with TetraFlex®

The DAMM TetraFlex® System features a wide range of embedded software tools to make all aspects of operating and managing the system as simple and cost-effective as possible.



### **Intuitive and user-friendly interface**

The unique graphical TetraFlex® Network Management system provides a user-friendly and highly flexible tool for subscriber management, monitoring and optimization.

Thanks to the underlying IP technology and dedicated DAMM maintenance facilities, you can easily monitor your entire network, manage subscribers, operate sites and much more – regardless of where you are in the world. Because all sites can be controlled remotely from this function, there is no requirement to invest in third-party management systems.

### **Advanced functionality, simple operation**

The embedded TetraFlex® Dispatcher tool provides a wide range of features for increased efficiency - such as GPS-based tracking of subscribers. These features are especially relevant when managing a large base of TETRA subscribers with mixed command, control and radio communications monitoring needs.

The TetraFlex® Voice and Data Log System enables you to access system parameters from across your entire network. Log and replay activities, i.e. voice, SDS and CDR, and access gathered statistics on operational performance.

## What is TETRA?

First launched in 1995, Terrestrial Trunked Radio (TETRA) is today the definitive standard for the most demanding radio communications applications worldwide. TETRA's fully digital technology provides low-noise, secure and robust communications. Key features include individual simplex and duplex calls, group calls, pre-emptive emergency and priority calls, Dynamic Group Number Assignment (DGNA), authentication, late entry, voice encryption and packet data services.





## The TETRA experts - trusted by industry leaders worldwide since 2000

Founded by Hans Damm in 1981, DAMM has been a leader in professional radio communications for over 30 years. Through superior engineering and a constant focus on reducing both complexity and cost, we are today among the global leaders in TETRA technology.

Hundreds of successful projects worldwide have proved the durability and cost-effectiveness of our solutions. They have also won us a global reputation for providing the most scalable, flexible, future-proof and user-friendly TETRA infrastructure on the market.

We are also recognized as being the most environmentally conscious TETRA supplier. DAMM holds the prestigious ISO 14001 certificate and we continuously set new targets for reducing the environmental impact of our products, production and daily work processes.

To support our state-of-the-art TetraFlex® Systems, DAMM has built up an extensive global network of certified system and application partners. We only choose highly experienced partners with substantial knowledge of radio technology and TETRA.

**For more information or to find a certified DAMM TetraFlex® System Partner near you, please visit [www.damm.dk](http://www.damm.dk)**



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