TETRA for critical infrastructure

Professional mobile communication and workflow management
Leveraging mission-critical excellence

In extreme situations, reliable communication is the key to success. Nowhere is this statement more true than in the case of large infrastructures in remote or dangerous surroundings, such as oil rigs, off-shore wind parks or petrochemical plants. To ensure safe and efficient operations, a multitude of staff members and systems have to interact seamlessly, no matter how far away they are from established communication networks.

A mission-critical, secure and flexible platform is required that acts as the communications backbone and organizes the interplay of operations necessary for safe and economical operations.

Atos' solution TETRA for Critical Infrastructure (TCI) sets up a safe, secure and streamlined communication network in even the most extreme locations. It is based on the mission-critical, wireless industry standard "Terrestrial Trunked Radio" (TETRA) and consists of a variety of powerful applications for voice and data communications as well as workflow and workforce management.

TCI provides targeted radio coverage for your entire area of operations, even inside metal constructions, such as wind towers. It lets you communicate with single users or specific user groups and tracks their movements on an intuitive graphical user interface (GUI). Thus, you have full control over all ongoing activities, allowing you to optimize work efficiency and to ensure the safety of your staff.

To prevent critical situations, TCI utilizes the TETRA network to remotely monitor the status of your equipment, for example power generators. This ensures optimal performance at all times while saving your staff unnecessary trips through potentially hazardous surroundings.

TETRA for Critical Infrastructure – reliable and efficient in even the most remote locations

- "Atos delivers a comprehensive package for communications, personal tracking, telemetry and data monitoring in an area where no other wireless coverage is available or would do the same."

- "Atos has guaranteed reliable communications and personal tracking even inside metal tower constructions."

- "The Atos telemetry system lowered our initial capital expenditures and continues to help us keep our maintenance costs to a minimum."

Customer feedback

Trusted partner for your **Digital Journey**

Atos

Targeted radio coverage – high availability indoors and outdoors

TCI utilizes radio dispatchers and line-connected application servers to set up a targeted local radio cell for voice and data transmissions. In order to guarantee radio communication and position information even inside solid metal structures, such as wind towers in a wind park, TCI includes fully integrated gateways. Hence, there are no "white spots" on your communication map, and every member of your staff is always within reach.

Because it is designed as a closed, self-sustained system, TCI can be set up even in the most remote locations, for example on an oil rig in the middle of the ocean, but it can also be used to create a secure communication cell in a densely populated area, for example in the case of a chemical plant in a large city.

TETRA Dispatcher (TD) – increased operational efficiency

TD is the hub of TCI. It manages all your dispatcher clients and allows you to communicate with single users or specific user groups, such as all of the deckhands or tankermen on an oil rig. TD's intuitive web-based GUI is highly customizable and lets your dispatchers create dynamic groups or automatic dispatches at the touch of their fingertips. Because it also automatically suggests qualified resources to fix a specific problem, it speeds up your dispatchers' workflow and increases their productivity.

TD provides a wide range of additional data and communication services, such as broadcast calls or status messaging, as well as security features such as end-to-end encryption with key updates. It ensures the efficient and effective coordination of your activities, and minimizes the response time of your staff considerably.

Automatic Vehicle Location (AVL) – reliable tracking with on-the-map interactivity

TCI's AVL offers precise and reliable location tracking of vehicles and mobile users equipped with TETRA terminals carrying GPS receivers. Using this equipment, your dispatchers can see the actual positions of the terminals on the display and visually track historical movements.

Additionally, it includes on-the-map interactivity, such as dynamic group creation or user status / emergency status visualization, and even tracks positions in indoor locations. To ensure the safety of your staff, geofencing generates alarms whenever a user is too close to a specific area, such as a depot of highly flammable materials.

## TETRA workflow integration – optimizing resource utilization

Each user is issued a TETRA handset that receives tasks directly from the TD. The voice and message controlled system lets the dispatcher monitor the status of each task, giving him the necessary real-time information to optimize resource management and increase the productivity of your field staff.

Telemetry – efficient equipment performance monitoring

TCI allows the telemetric monitoring of your equipment, for example to track the performance of a generator. In this case, data is read out from the generator's controller and sent through the TETRA network to the control center where the data is visualized on a web-client.

Other applications include customized alarms that are activated whenever threshold values are exceeded. These features save your field staff unnecessary trips to check on the performance of your equipment – making your operations safer and more efficient.

TETRA for Critical Infrastructure is the secure and reliable communication and workflow management solution for large, self-contained infrastructures. It sets up a targeted communication cell in even the most extreme locations and provides intelligent features to enable safe and economical operations.
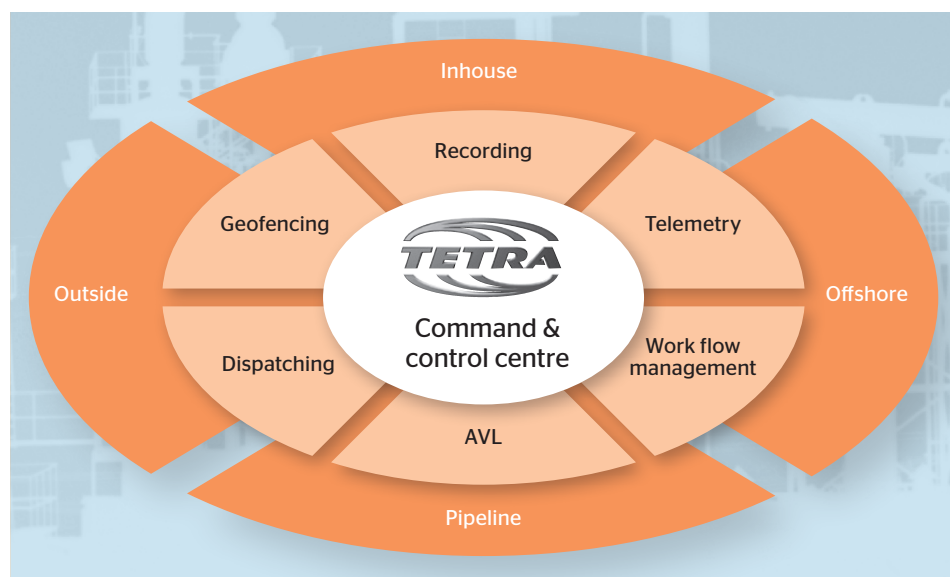
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