

TETRA PAGING

creates new ideas



Many people still picture a pager as a small beeping device showing only which phone number to call when the user can get to a landline telephone. Paging today offers much more, including advanced solutions that make it a valuable tool in day-to-day operations.

The basic idea remains the same: to alert people on duty when they need to respond to an incident. The alerted individuals are often professionals, but they may also be volunteers. In any case, they're needed to help handle a critical situation.

Thanks to secure, advanced TETRA networks, paging solutions will have many more features and functions to offer in the future.

Paging devices

Old-fashioned, basic paging is not efficient in the modern world, where dispatchers are often looking to pass critical information directly to the alerted people. Instead, it's paging's features that make it useful.

For instance, the paging device can show the priority or severity class of the alert and a timer will start running. The user must accept the alert before the timer runs out, or the

system will record that they're not available. This is useful because the dispatcher instantly knows which resources are available for call out. The pager display must be big enough to show all the important information, so that personnel know what to expect once they arrive at the scene of the incident.

The pager needs to be compact and the antenna should be integrated within the device, so it is convenient to carry in a pocket. It should also be rugged and resistant against dust and water. Most of all, it should be very easy to use with long battery life. Ideally, the user should also be



able to carry out any software upgrades and terminal configurations over an IP network by connecting the pager to their home PC. This would reduce the need to take the device to a service point when the pager settings need to be reconfigured. Being able to update the pager at home, for example, would make life much easier for volunteer firemen who do not regularly visit the fire station.

Simple or full paging?

Paging solutions nowadays can provide anything from a simple call-out to a wide feature set. In countries such as Germany, where the majority of fire brigades rely on volunteer fire fighters, paging with a simple call-out is a perfect solution. Volunteers may be drawn from many different professions, but they each have their own specified task within the fire brigade.

These part-time volunteers don't need to be involved in the public



safety authorities' voice communication during their normal working day, when they may be busy as teachers, nurses or office workers. The important thing is that they are reachable. A powerful and simple pager with a long-lasting battery and simple set of features is therefore the best solution. Voice communication is usually not needed, since the users only need to accept or reject the alert by pressing a key. An alert gathers the volunteers together at the fire station for more detailed instructions.

Full call-out can be a better solution for professionals, such as fire fighters who are on call at home. Full call-out normally requires a TETRA

radio with a paging feature. After the user has accepted the task, the radio can move to an information phase and the dispatcher can provide everyone in the alerted group with more details about the mission, via either text or voice. Those officers who accepted the task can even start a group call before they get to the fire station. This means that the group starts preparing sooner for whatever situation they face.

Of course, it's not just emergency organisations that can benefit from advanced call-out features. They can also help organise other field operatives, such as maintenance personnel. With this type of task manage-



ment, maintenance technicians could be called to their next job by a simple pager and press the “accept” or “done” key to let the dispatcher know once the job has been completed.

Operators can benefit

TETRA paging also offers benefits for network operators who can use their existing TETRA infrastructure, which is more cost effective than running a separate, dedicated paging network. Pagers are light users of the network,

because they don't require voice communication. A good balance of radios and pagers can therefore help to optimise the use of network resources. Operators might also attract new users who normally use GSM communications but are looking for task management features. During major incidents, the public mobile phone network is often jammed with too much simultaneous traffic, but TETRA provides more secure communications. In addition, a pager

scores well in terms of information security, because the risk of misuse is minimal if it gets lost or stolen.

Operators and dispatchers can also benefit from the advanced filtering features available in paging. Each user can have a specified role, such as a chemical expert, for example. That person need only be alerted if chemicals expertise is needed in a particular incident. This function can be automated so that in an emergency when every second counts, the dispatcher can simply send the alert and the pagers will handle the filtering.

Future trends

Because demand for paging in TETRA seems to be growing, operators, organisations and users around the world should take some time to define their needs and use cases. Stakeholders should get up to speed with what's possible with paging in TETRA and get ready to make the most of the technology. Paging might bring new opportunities and new ways of working with existing TETRA systems.

Photographer: Juhana Hietaranta



See the new active TETRA Pager in action at Cassidian stand in PMR Expo 2013.

Outstanding radio performance in robust and compact design.

