



Considering paging for a P25 upgrade

Many public-safety organisations are currently updating their analogue communication technologies to digital ones. The reason for switching from analogue two-way voice communications to a digital system (such as P25, Tetra, DMR) is often to revamp outdated infrastructures. In most cases communications and alerting (paging) are running on the same analogue radio network. Operators need to account for future alerting scenarios when planning a migration in order to avoid loss of performance, high costs and the frustration of users. Traditional, analogue networks provide both services; they enable two-way voice communication and are used to send page alerts to volunteer, retained and permanent firefighters. For several reasons, this infrastructure has come to the end of its lifecycle.

The transition to digital systems brings many advantages for data and voice communications, but paging is too often left behind with the old analogue infrastructure. However, it is simply too costly to operate and maintain an obsolete analogue infrastructure for paging alone without benefitting from the advantages of the digital system.

Compliant and cost-effective

Which decision should public authorities take in order to solve this dilemma?

Use P25 pagers on the same network. Some public authorities consider using P25 pagers to digitise their pagers. However, using P25 pagers comes with three major disadvantages:

1. P25 pagers are costly, priced at nearly \$1,000 compared with the \$200 it costs for a high-quality digital fire pager that runs on the POC-SAG protocol, the predominant global standard for digital paging. For a fleet of 300 pagers, this results in a difference of \$240,000. If you consider a fleet replacement every five years, this cost difference increases to \$720,000 during a 15-year period.
2. Pagers based on technology designed for two-way radio devices are quite big and bulky and need to be recharged every one to two days. In contrast, high-quality digital pagers are slim and can run for up to three months on one battery, making them convenient for volunteer firefighters who carry their pagers every day. Additionally, digital pagers can be operated with a single AA battery, which is ideal in case there is a power outage or if you want to avoid the cost of battery chargers.