

Case Studies

Hessen Road Maintenance System

Germany is famous for its highways, and no fewer than 24 pass through the state of Hessen, where the Frankfurter Kreuz A3/A5 interchange handles as many as 320,000 vehicles a day. For maintenance purposes, the state road network is divided into 50 districts, with crews using analog radios to ensure that the right resources are in the right place at the right time. Each district has been using 10~20 mobile radios, 5 portable radios, and up to 4 repeaters. However, Hessen decided to conduct a pilot project using a digital communications network to ascertain the cost and performance benefits of the latest radio technologies.

● Clear requirements

State officials were looking for a system that would offer **the same or even better performance than other digital networks at a lower cost, with narrow-bandwidth operation to increase coverage, high audio quality, security features, and IP connectivity.** Moreover, it had to be able to **work with the existing analog infrastructure to facilitate a smooth migration.** And in addition to replacing the legacy system, there are plans to expand the network in future, to connect with the highway maintenance system.



● Robust response

This was a very important project, involving about more than 1000 radios, and it received the full attention of Kenwood Germany and their system partners who have established a good working relationship with the state government. They also received strong support from Japan. It was thus possible to **make good use of the multisite IP networking capability of NEXEDGE® to develop a system that was fully customized to meet the state's requirements. And the cost was kept lower than that of competing systems because it required fewer sites.**

The complete NEXEDGE® system developed for Hessen comprised 50 sites and 100~140 NXR-700E repeaters, serving nearly 1000 NX-700E mobile radios and more than 200 NX-200E portable radios, and using up to 10 channels.

● Gratifying result

Hessen's new NEXEDGE® system provides much better coverage than the previous analog system. Crews working on road maintenance benefit from an easy-to-use dispatcher system supplied by FunkTronic, as well as ready for data communications for crucial GPS location information. **Kenwood has again proved that NEXEDGE® is a scalable solution capable of taking on the challenge of even the most demanding applications.**

