

## **CASE STUDY:** **Iceland Emergency Roadside Telephones (ERT)** Icelandic Road Administration standardise on Norphonic VoIP phones for their roadside emergency communications



### **Norphonic is providing new VoIP Emergency Roadside Telephones (ERT) for deployment inside the road tunnels in Iceland.**

Vegagerðin, the Icelandic Road Administration, has started a structured plan to replace all old legacy analogue telephones inside Iceland's tunnels with modern Heavy Duty VoIP telephones. The Norphonic VoIP ERT telephones will also be installed in three new road tunnels currently under construction.

"Norphonic's robust performance coupled with the unique VoIP capabilities makes this an ideal emergency roadside telephone solution" comments Guðmundur Ingi Guðmundsson, at Smith & Norland, a leading system integrator in charge of the installation and replacement program.

"The Norphonic Heavy Duty VoIP telephone is built on Open SIP Standards which enables easy integration with both new and existing network infrastructures, making the telephone solution highly scalable and future-proof"

#### **Installation Summary**



Norphonic VoIP Emergency Roadside Telephones (ERT)

#### **Location**

Road tunnels in Iceland

#### **Customer**

Vegagerðin (The Iceland Road Administration)

#### **Industry**

Road Security, Emergency Roadside Telephones

## The Solution

In the tender for the Emergency Roadside Telephone (ERT) solution, the Iceland Road Administration put emphasis on the need for full redundant service, making sure that there always is a back-up line in case one line goes down. The telephone also needed to have an excellent sound quality with a MOS (Mean Opinion Score) of 4 or higher (the best MOS is 5).

Norphonic fulfilled all the requirements, as Helge Rognstad, global sales and marketing director at Norphonic explains "The Icelandic ERT solution is based on a Norphonic VoIP product with two single mode industrial fiber ports built into the telephone, which allows a fully redundant service".

"Furthermore, the Norphonic Heavy Duty VoIP telephone has an excellent voice sound quality with a Mean Opinion Score of 4.3. Norphonic also have a long and successful track record, having been installed in numerous tunnels in the past".

The ERT system is based on a Norphonic VoIP telephone without a keypad, allowing stranded motorists simply to lift the handset to be put straight through to the emergency services, eliminating the need for road users to remember what telephone number to dial in case of an emergency.

### What is a VoIP Telephone?

*VoIP is an acronym for "Voice over Internet Protocol" which is one of the newest cutting edge communication technologies today. VoIP allows users to make telephone calls using their existing data networks rather than from the traditional analogue land line service. These calls can be made from one computer to another or to landlines as well. VoIP telephony represents a billion world market in which analogue is being rapidly displaced by modern networked technology, known as VoIP telephones.*



*A tunnel under a fjord; the Hvalfjörður Tunnel, is among the longest underwater road tunnels in the world. It is 5,770 m (18,930 ft) long and goes 165 m (541 ft) deep below sea level.*

## The Results

The robust Norphonic VoIP telephones will be installed in eight finished road tunnels in Iceland and also three others currently under construction in the Icelandic road system.

The Norphonic VoIP Emergency telephones are based on open SIP standards and can therefore work seamlessly with any IP based PBX solution, in Iceland's case a brand new Alcatel- Lucent Omni PCX Enterprise switchboard solution. The Alcatel solution has a full redundant system and a 12 hour battery back up which will automatically be deployed in case of power failure.

Since the Norphonic ERT telephones comes with remote control and automatic fault check features as standard, any maintenance or upgrade work can be done from a central location, reducing maintenance costs considerably.

Once the installation and replacement program is complete, the Iceland Road Administration will be able to manage all emergency roadside telephones in Iceland from one central control room.



### Heavy Duty VoIP Telephones

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