



# MOTOTRBO™ RAISES PAPER MILL PRODUCTIVITY

HUNGARIAN COMPANY MIGRATES TO DIGITAL TWO-WAY RADIO FOR BETTER COMMUNICATIONS



To enhance vital voice communications across its expanding operations, Hamburger Hungária, one of Europe's leading producers of recycled paper has upgraded its analogue two-way radio network to a MOTOTRBO digital system.

Based in the city of Dunaújváros, the Prinzhorn Group-owned company is responsible for the production of almost 90 percent of the country's waste paper recycling requirements. Hamburger Hungária's success has resulted in it outgrowing its original premises and increasing its operations at additional locations across the city.

This subsequently demanded the phasing-out of its existing two-way radio system and replacing it with a cost-effective, easy-to-deploy, digital solution that would future-proof communications and allow for easy expansion of the network.

The new solution, implemented by local partner, Fercom, has been augmented with Motorola's IP Site Connect technology which allows the company to easily extend the radio network to multiple sites via the Internet.

#### CUSTOMER PROFILE

**Company**  
Hamburger Hungária

**Technology Partner**  
Fercom Ltd.

**Industry Name**  
Waste Paper Recycling.

#### Key Benefits

- Easy to install, expand and upgrade
- Remote management capability
- Voice and data capability
- Seamless roaming across multiple sites

#### Product Name

- MOTOTRBO DR3000 repeater
- MOTOTRBO DP3400 portable
- DM3400/DM3600 mobile radios

**“The enhanced functionality of the MOTOTRBO system makes it the perfect solution for our customer. The migration was virtually seamless and Hamburger Hungária will be able to take advantage of the system’s data capability in the near future.”**

Attila Végh, Project Manager at Fercom.



## THE CHALLENGE

Hamburger Hungária’s original network was relatively rudimentary, based around Motorola CP040 portable and CM140 mobile analogue two-way radios sub-divided into departmental user groups. While it served its purpose at the time and the company was happy with the quality of the radios, there were network ‘dead zones’ throughout the buildings, quite a lot of signal interference and excessive machine noise in certain operational areas which made clear communication difficult.

This began to have a significant impact on the various departments’ productivity (such as engineering, laboratories and dispatch) as they rely heavily on radio communication to ensure the various stages throughout the paper production process are carefully co-ordinated. Also, the construction of an additional paper mill at a different site – to cater for the increased demand for recycled paper – required an extension and integration of the radio networks. It would also have to cater for any additional expansion in the future.

As a result, the company investigated the feasibility of implementing a MOTOTRBO digital two-way radio solution that would not only solve their immediate communications problems, but would allow them to retain their existing analogue radios so they could be phased out over time, extending the life of their initial investment.

## THE SOLUTION

Following a successful pilot network, a MOTOTRBO digital two-way radio system was deployed comprising 50 MOTOTRBO DP3400 portable and DM3400/DM3600 mobile radios which are used as fixed stations.

At the heart of the system is a DR3000 repeater which uses time-division multiple-access (TDMA) technology to provide twice the calling capacity while delivering spectrum efficiency and enhanced voice communications. As the system has the capability of operating in both analogue and digital mode, the company has been able to retain a number of legacy radios for a few small groups across the plant – these will, in due course be replaced with digital radios.

Hamburger Hungária has also implemented IP Site Connect - a digital software feature of MOTOTRBO - to link up additional sites where new paper mills are being installed. It allows up to 15 repeaters at a single site or across multiple locations to be interconnected to create a single communications network, irrespective of geographic location.

A DR3000 repeater and a number of antennas are deployed in key areas to ensure maximum coverage is achieved throughout the multi-site operations area to deliver reliable, clear voice communications to workgroups across all departments. The company has also introduced special headsets to help eliminate excessive background machine noise.

## THE BENEFIT

With the MOTOTRBO two-way radio system in place, Hamburger Hungária is now able to achieve 100 percent signal coverage across its operation. In addition to enhancing voice communications which will help bolster productivity, the new system will help reduce overheads.

For example, the system delivers twice the calling capacity (compared to an analogue solution) for the price of a single licence. This means that a second call doesn’t require a second repeater which saves on equipment costs. Plus, digital TDMA radios offer enhanced battery life - operating up to 40 percent longer between recharges - compared to typical analogue radios.

The inclusion of IP Site Connect will also allow the company to:

- Overcome communication problems caused by interference and physical barriers such as buildings
- Share voice and data (and applications such as text messaging or GPS-location tracking) across geographically dispersed locations
- Enable users to seamlessly roam between sites without having to physically change channels

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