



# Brazilian Emergency Services Boost Efficiency with Digital Radio



## Sao Paulo SAMU Moves to MOTOTRBO with TRBOnet Dispatcher System

To improve its two-way radio communications coverage and provide critical services to some 12 million people across Sao Paulo, Brazil's largest city, the regional emergency medical services organisation Serviço de Atendimento Móvel de Urgência (SAMU) has chosen a MOTOTRBO digital radio network. The network is enhanced with a TRBOnet Enterprise dispatcher system from Application Partner Neocom and the implementation and dispatcher system configuration was undertaken by local Motorola distributor, Newtech Radiocommunication Ltd.

SAMU is a nationwide organisation and is responsible for the mobile medical services of the country's pre-hospital emergency care programme. This includes attending to calls such as home emergencies and traffic accident victims and transferring them as soon as possible to the nearest hospital. Currently, 70 branches of SAMU operate across Brazil reaching some 68 million people in 320 towns across 22 states.

The decision was made to replace SAMU Sao Paulo's conventional analogue radio network to provide a more reliable solution that would offer better coverage and audio quality across the sprawling metropolis.

In addition, the move to digital two-way radio would provide sorely-needed extended features such as VoIP, voice recording, GPS functionality and text messaging which could be integrated with a dispatcher system to allow the organisation to monitor and manage the huge amount of audio and data traffic being generated.

**Industry Name**  
Emergency Services

**Solution Features**

- 6 Repeaters
- 454 Mototrbo units
- 12 Voice Channels
- TRBOnet Enterprise (VoIP, Voice recording, GPS, Text messaging Emergency Call)

**Benefits Features**

- Faster emergency response
- Listen and talk to 6 channels simultaneously
- Private call over GPS revert channel
- Cost reduction

“With the new MOTOTRBO radio system, combined with TRBOnet Enterprise dispatch and the GPS solution, we expect to reduce our response time between the caller request and the ambulance arrival at the location by 5 minutes. For us, one minute makes all difference in the patient’s life.”

**Domingos Guilherme Napoli, SAMU doctors’ coordinator**

“With support for both analogue and digital channels, which helps with the migration to a new system, TRBOnet Enterprise enables dispatch centre personnel to monitor audio, data and the location of assets through GPS while providing record management and the ability to review events that have taken place.”

Igor Mikheev, director at Neocom Software Ltd

#### Advanced Dispatch Solution Enhances Response Times

TRBOnet Enterprise is a PC-based client-server dispatcher software application which was especially developed for the MOTOTRBO digital radio system and allows dispatch centres to monitor large amounts of traffic. It helps make response times during emergency situations quicker and more effective and it can be used to link multiple agencies or departments.

Igor Mikheev, director at Neocom Software Ltd, elaborates: “With support for both analogue and digital channels, which helps with the migration to a new system, TRBOnet Enterprise enables dispatch centre personnel to monitor audio, data and the location of assets through GPS while providing record management and the ability to review events that have taken place.”

SAMU has incorporated numerous features which have significantly enhanced communications and efficiency across its operation. These span voice recording for verifying information, GPS to identify the closest vehicle to an incident location and text messaging for sending specific details (such as addresses) to vehicles.

In addition, SAMU has implemented a special feature, Private Call over GPS revert channel which reduces the loading of the main voice channels.

“These events can also be prioritised onto a live map such as Google Earth™ to provide a real-time view of the entire operation. With 380 mobile and 74 portable radios out in the field, SAMU’s dispatchers need to know exactly when and where emergency vehicles and personnel are at any given time to maximise response efforts,” notes Mikheev.

The dispatcher-enabled network is delivering numerous benefits. These comprise much faster communications due to a greater coverage area, enhanced audio quality and major reductions in overheads - such as the replacement of the old GPRS/GPS feature which struggled to perform optimally as a result of cellular network overload - realising a cost saving of some \$15000 per month.

“It’s also giving doctors the ability to listen and talk to 6 radio channels simultaneously which has made a large improvement to patient care during critical situations,” says Mikheev.



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