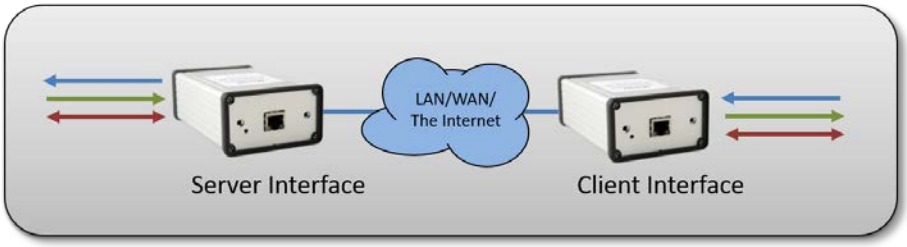
Mimer SoftLine

Connecting radios all over the world

Mimer SoftLine

Functional Description



V 1.2

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This paper describes various alternatives how to build a **Mimer SoftLine** system by using two network interfaces.

In the standard SoftRadio systems there is one network interface at the radio, or other audio component, and at the operator there is only a Windows PC with the SoftRadio software (no hardware interface). Many nodes can be connected together.

In SoftLine systems no Windows PC is used and only two nodes can be connected together.

Please also see the web pages www.lse.se/softline.

If you have any questions, just drop us an email and we will help.

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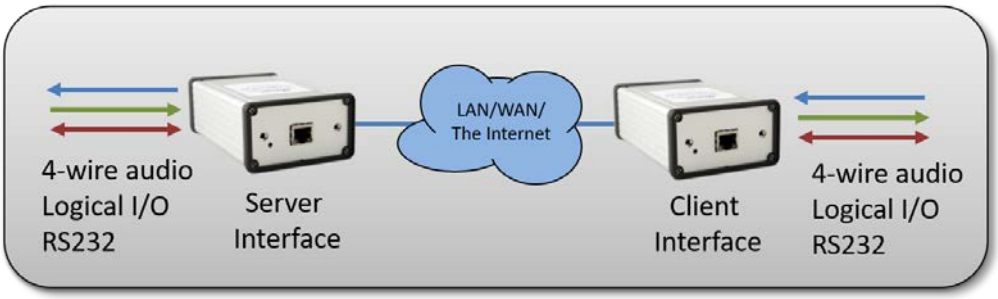
1 Mimer SoftLine

Two Mimer Network Interfaces with a special software can be set up to work with each other over a LAN or over the Internet with one as Server and one as Client. Between them, over the IP connection, there will be a virtual 4-wire audio line, a virtual RS232 serial data connection and some logical in/outs.

The two interfaces will log onto each other when a connection is available. If the connection is lost and then restored, they will reconnect automatic.

This is useful for older radio systems with desk top consoles, switches etc that can't be changed out, when the leased lines are very expensive. SoftLine can also be used for totally different purposes than radio connection.

Mimer Softline will work over LAN, WAN or the Internet.

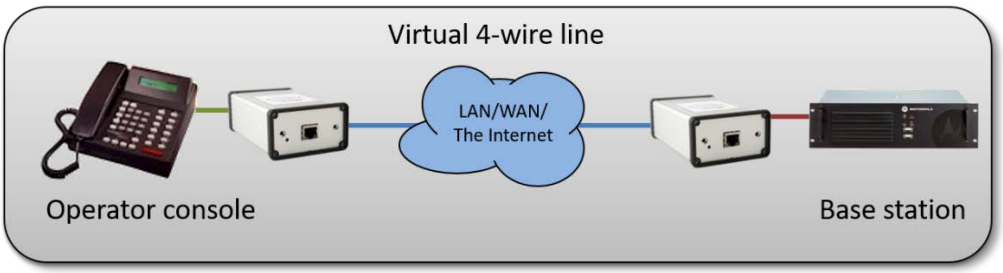


Basic connections in the SoftLine setup

2 Examples of SoftLine use

2.1 Remote control of an old base station radio

Instead of using an expensive leased line connection between a dispatcher console and an old base station radio you can use the Internet for connection.



Remote control of an old base station, substituting the leased line

2.2 SoftLine Cross patching

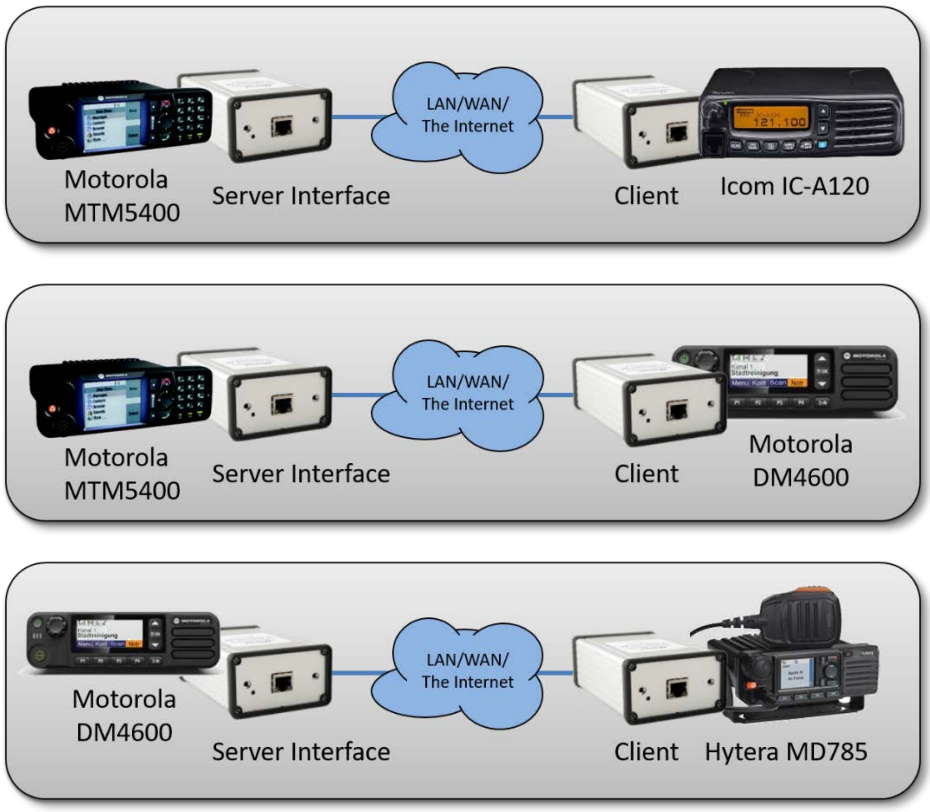
We have a version of SoftLine for CrossPatch use.

You can place the radios next to each other or remote using the Internet between them. The radios can be of the same type and be used for connecting two areas together or they can work in totally different radio systems to build a cross patch.

The cross patch is often used at airports. It connects for example an air band radio to a Tetra terminal over the local LAN. This gives Tetra users (ground personnel) the ability to talk to air band radios (planes).

As soon as there is reception on one radio the incoming audio will be rebroadcasted on the other radio, and vice versa.

The system can be set up for almost any two types of radios.



Different combinations of radios that are patched together

The patch functionality can also be achieved by using Mimer SoftRadio with the option CrossPatch. This gives the PC dispatcher the control of turning the patch on/off and to change channels etc on the radios.

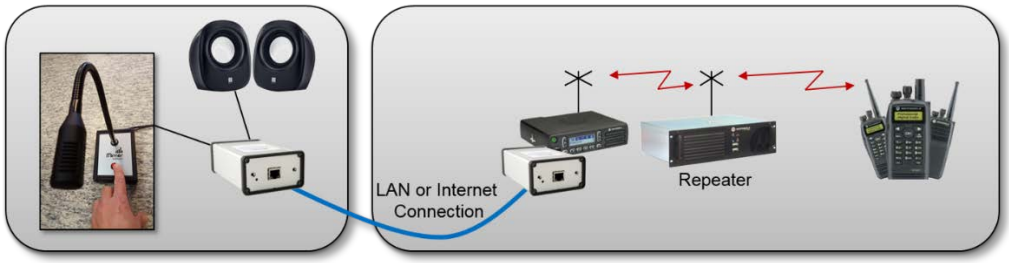
You can also use the Mimer X-Link. Please see the web page for these alternatives.

2.3 SoftLine Remote talk setup

Some users prefer to remote control a radio over IP using only a microphone and a speaker at the operator end. There is a version of SoftLine for this purpose.

Using a table top microphone plus speaker connected to the interface at one end and a radio connected at the other end.

Different types of radios can be used. In the example below the remote radio works through a repeater to other radios.



A MotoTrbo radio is remote controlled through a desktop microphone with separate speakers

3 SoftLine for remote control of a radio

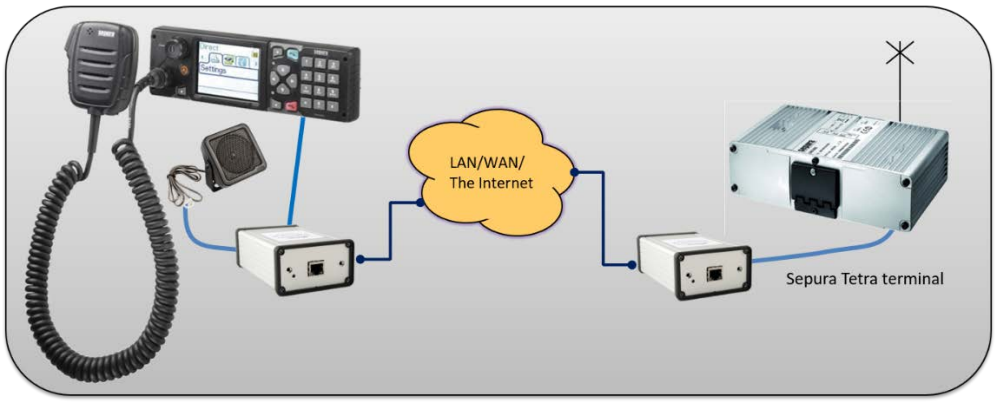
Some customers have a need to either remote control a radio over a long distance or they need to remote control via a fibre optic cable. But they do not wish to use a Windows PC as the operator position, as is the standard in Mimer SoftRadio systems, they prefer to use the radios standard control head, microphone and speaker.

For this purpose, we have made setups that can separate the radio and the standard control head using LAN, the Internet or a fibre cable.

3.1 SoftLine Sepura

Via SoftLine Sepura two network interfaces can be connected together over an IP-net. One interface will be connected to the radio and one connected to the control head.

The standard speaker and microphone can be used at the operator end.



Remote control of Sepura Tetra terminal

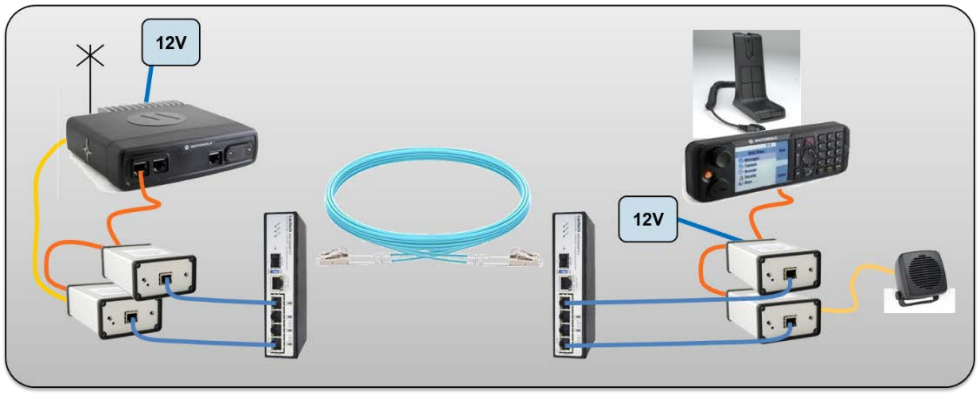
3.2 SoftLine Motorola MTM5500

As above, this solution can also be built for Motorola MTM5500 Tetra radios. With the exception that it only works in a local LAN, not over the Internet.

One remote control head through this application can be used in parallel with a local standard control head.

The system needs two IP connections. One for control and one for audio.

Our standard delivery includes fibre modems.

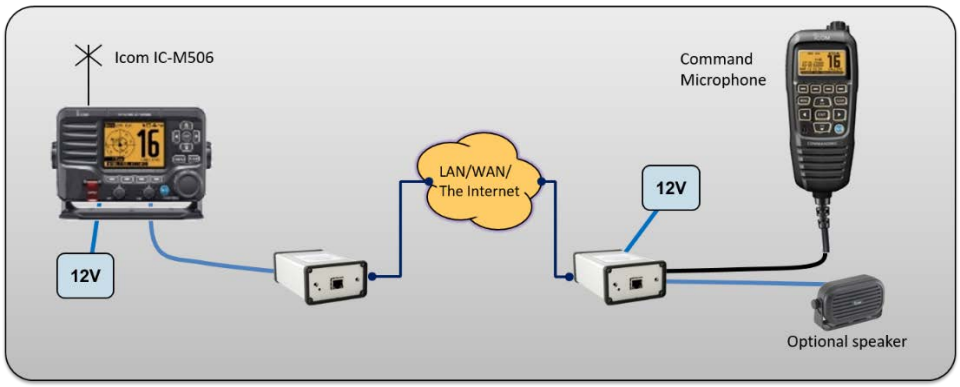


MTM5500 remote controlled with a fibre connection

3.3 SoftLine Icom Marine

There is also a solution for the marine radios Icom IC-M506, M423 or M400BB. With these radios the standard Command microphone is used.

When remote controlling an Icom marine radio the radios standard front panel and microphone can be used in parallel.



Remote control of Icom marine radio

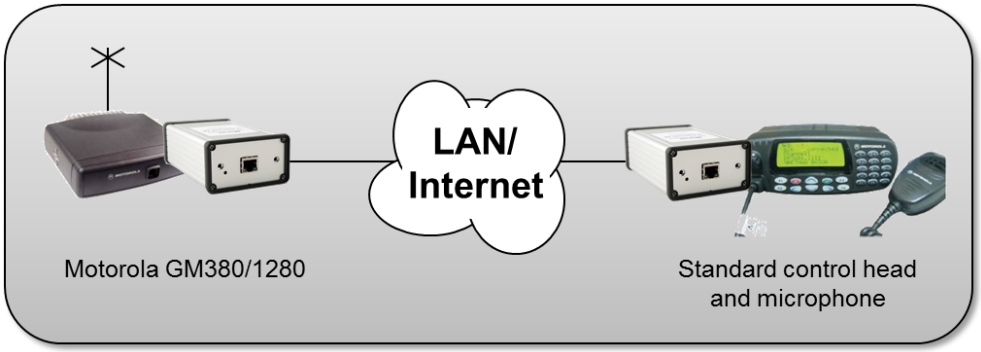
3.4 SoftLine Motorola Analogue

Via SoftLine Motorola two network interfaces can be connected together over an IP-net. One interface will be connected to the radio and one connected to the control head.

The operator will use the standard radio control head and the standard microphone.

The solution fits to Motorola GM380, GM398, GM399 and GM1280 radios.

The interface in the radio end is a standard interface, same that is used in Mimer SoftRadio. This means that you can mix clients that use a standard PC with SoftRadio as the operator position.



Remote control of analogue Motorola radio

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