

# TRAMWAY STATIONS

Passenger of a tramway line requires an efficient PA system with fast broadcast of the information, especially in case of disruptions that advises all people present in a same station.

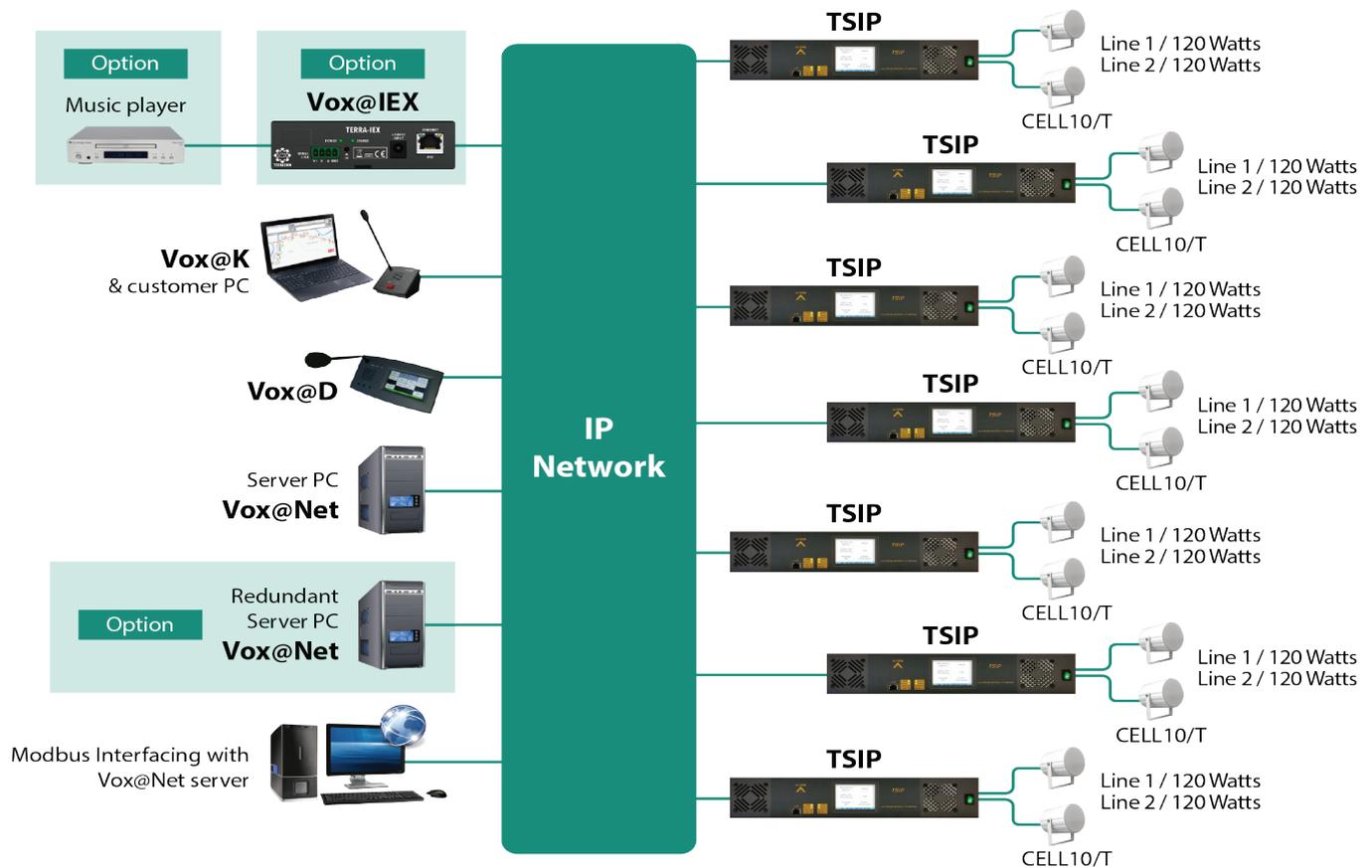
The networking of systems specific to each station contributes the spread of the information on all tramway lines.

## ADVANTAGES

- Upgradeable compact-system, adaptable according to the need.
- IP remote PA system.



## APPLICATION EXAMPLE



## SOLUTION

**TSIP** is a compact digital audio matrix which enables to equip a tramway station thanks to its two 100 Volt 120 Watt integrated amplifiers: one amplifier per output. It also has an IP interface, a message player, an automatic level regulation, supervision of the two 120-Watt lines, two audio inputs and outputs as well as two contact inputs and outputs.

The matrix receives audio signals coming from the **Vox@Net** central system via a TCP/IP network thus enabling the spread of information on the entire tram line.

The matrix configuration is made by embedded web server.

The audio system on the **Vox@Net** IP network enables to supervise all audio sources and destinations. It enables to use the TSIP matrix as well as the various functionalities: broadcasting messages and paging in a station and/or on all the lines, recording messages with the microphone for later broadcast, placing in a queue pre-recorded messages, event scheduler, interfacing with other MODBUS systems, supervision of loudspeaker lines, follow-up and reporting of error messages. A **Server PC** enables the configuration and use of the Vox@Net program.

A MODBUS interfacing with the client's supervision system is possible via the Vox@Net software.

The **Vox@D** paging console specially designed for PA systems on IP works with the Vox@Net software. It has a gooseneck microphone, a monitoring loudspeaker as well as a TFT 5" backlit color touch screen console. Functionalities available from its touchscreen console: skip from one page to another one, selection of zones, groups of zones, ON/OFF mic, chime triggering, reset, low, high or average priority, selection of messages, reading messages, stop messages, microphone paging, setting the volume of the control loudspeaker, start background music. Configuration of the console is made with an embedded web server.

The **Vox@K** paging console is also an IP paging console working with the Vox@Net software. It has a gooseneck microphone, an audio return loudspeaker as well as a push button (Press To Talk, active after Vox@Net authorization). Functionalities available from the control console (PC Vox@ customer) are: selection of zones, group of zones, mic paging, triggering chime, start background music, setting the volume of the control loudspeaker, etc.

It is possible to broadcast background music in stations, via the adding of a **Vox@IEX** IP Interface. This interface uses encoding/decoding PCM/SPEEX/MP3 codecs. Programming flows, priorities and events is made via embedded web pages.

## REQUIREMENTS

Broadcast pre-recorded messages in a station and/or on all the lines.

Calls in a station and/or all the lines.

Recording messages with microphone for later broadcast.

Queue for broadcasting pre-recorded messages.

Event scheduler.

Interfacing with other MODBUS systems.

Supervision of loudspeaker lines.

Follow-up and reporting of error messages.

History of broadcast messages.

## BASIC CONFIGURATION

<b>1 TSIP per station</b>	Compact digital audio matrix
<b>1 Vox@Net</b>	Audio system on IP network
<b>1 PC</b>	Server PC
<b>1 Vox@D</b>	IP paging console with touch screen console
<b>1 Vox@K</b>	IP paging console with push button
<b>4 CELL10/T per station</b>	10 Watt / 100 Volt Metal sound projector

## OPTIONS

<b>1 Vox@IEX</b>	IP Interface for broadcasting music
<b>1 PC</b>	Server PC
<b>CD / Tuner / MP3 Player</b>	Audio Source

## ADVICE

Commissioning and training recommended for this installation.

