



OPERATOR WORKING POSITIONS

The most important element for any operator is his or her working position. MEP provides a variety of options to be able to fulfil specific needs as well as integrating headsets, foot switch, microphones, speakers etc. in the preferred way.

The user interface is completely configurable and designed specifically for Air Traffic Controllers by Human Performance Specialists.

This ensures that the operator works with equipment which fully supports his or her best performance, every day.

CONFIGURATION AND MANAGEMENT

MEP systems can be configured easily. The configuration tool is designed with that purpose in mind. Voice Communication Systems are not static, but adapt to new radio's, network changes, extra users etc.

MEP has put extra attention in to the development of the configuration tool to support engineers and maintenance staff in performing their tasks intuitively and efficiently.

The MEP system comes with a management tool which present the status of the VCS, but also the radios, recorder systems etc.

PHILOSOPHY

At MEP we develop systems which minimise communication risks, based upon open standards and under stringent safety requirements.

LOUD AND CLEAR, ALWAYS

Redundancy options	TCS990	Gateway based
Redundant power	yes	yes
Redundant system	yes	yes
Geographical redundancy	yes	yes
System A and system B	yes	yes

MEP stands out in	TCS990	Gateway based system
Fast start up time	<30 sec	< 1 min
System availability	99,9999%	99,9999%
MTBF key components	> 1.000.000 hrs	>1.000.000 hrs
User friendliness operator	Avatar GUI	Avatar GUI
Scalability	<500 connections	>8.000 connections
Total cost of ownership	lowest in industry	lowest in industry
Security	sufficient	advanced
MEP hardware	yes	yes
Virtualisation possible	no	yes



MEP
VOICE COMMUNICATION SYSTEMS



AIR TRAFFIC VOICE
COMMUNICATION SYSTEMS

MEP

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About MEP

Established in 1989, MEP is a Dutch based, leading company in Voice communication Systems. MEP systems are completely developed and produced in house, following stringent quality control and international standards. The company has extensive experience and expertise in the integration of analogue, digital, VoIP radio and telephone communications.

MEP is present in many countries around the world with an installed base of Voice Communication Systems which are used 24/7 in Air Traffic Control and Maritime Traffic Control.

MEP systems stand out in reliability, scalability and ease of configuration.

ATC APPLICATIONS

MEP provides Voice Communication Systems for Area Control Centres (ACC), Air Traffic Control (ATC) at small, medium and large Airports as well as for Mobile Towers.

MEP delivers Main Systems, Back up Systems and Last Resort Systems. The systems consist of the controller working panels and gateways to interface with radios, telephone connections and voice recorders.

The systems can be designed and configured in line with the specific customer needs. Due to the flexibility in configuration it can fulfil changes in operator wishes during the entire system lifecycle.

MEP is compliant with the following standards

ISO 9001:2015
ISO 27001:2013
ISO 14001:2015
EuroCAE ED153
EuroCAE ED137
CE mark
UKCA mark
CAA CAP670

Built in functionalities in MEP systems

Radio ED137

Receive and transmit
Monitor
Add/remove channels
Change frequency
Cross coupling
Best signal selection
Simulcast

Retransmission

Automatic radio backup swithcing

Remote control of radio functions

And many other

Telephone ED137

Call queue

Hold

Group call

Call hunt

Direct access

Instantaneously access

Priority call

Indirect access

Last number redial

Call forwarding

Conference calls

Merge calls

Crash alarm

And many more

Voice recording

Legal recording

Last call recording

Operator functions

User log in

Role selection

Personal audio settings

Radio selection

System status indicatoin

Position monitoring

Personal telephone book

Control and monitor functions

Configuration of connections

Configuration of functionalities

Role management

Up/Down load configurations

Graphical system status overview

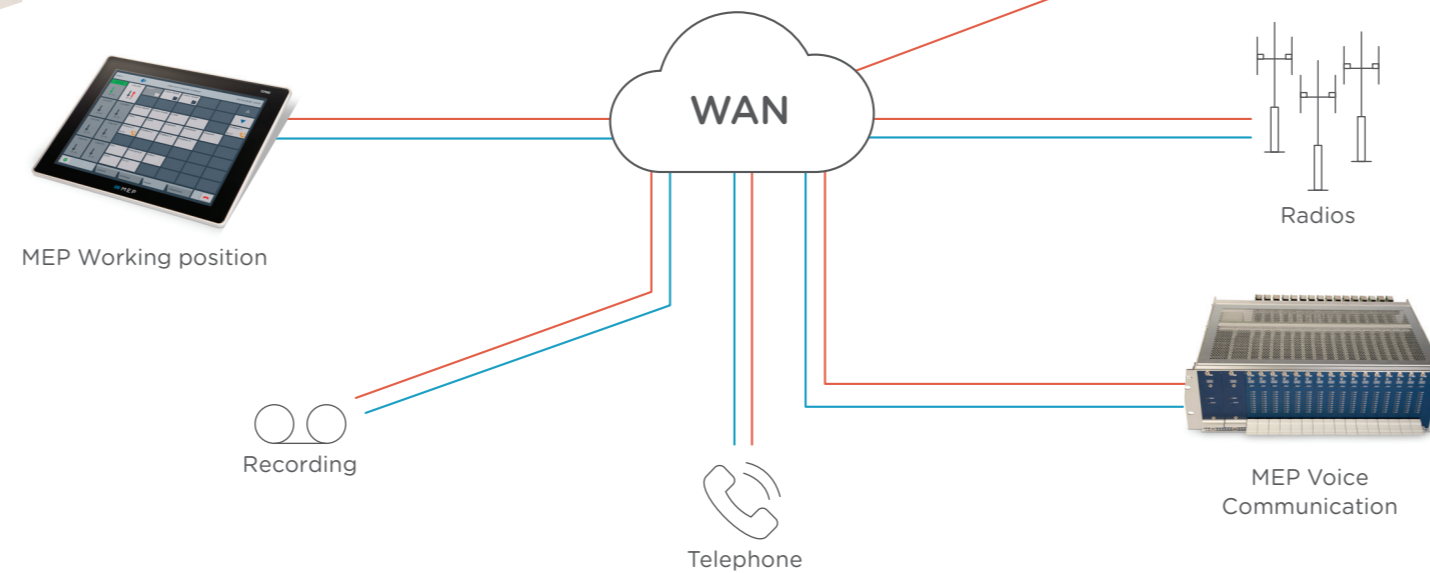
Detailed system status

Detailed log files

Execute System tests

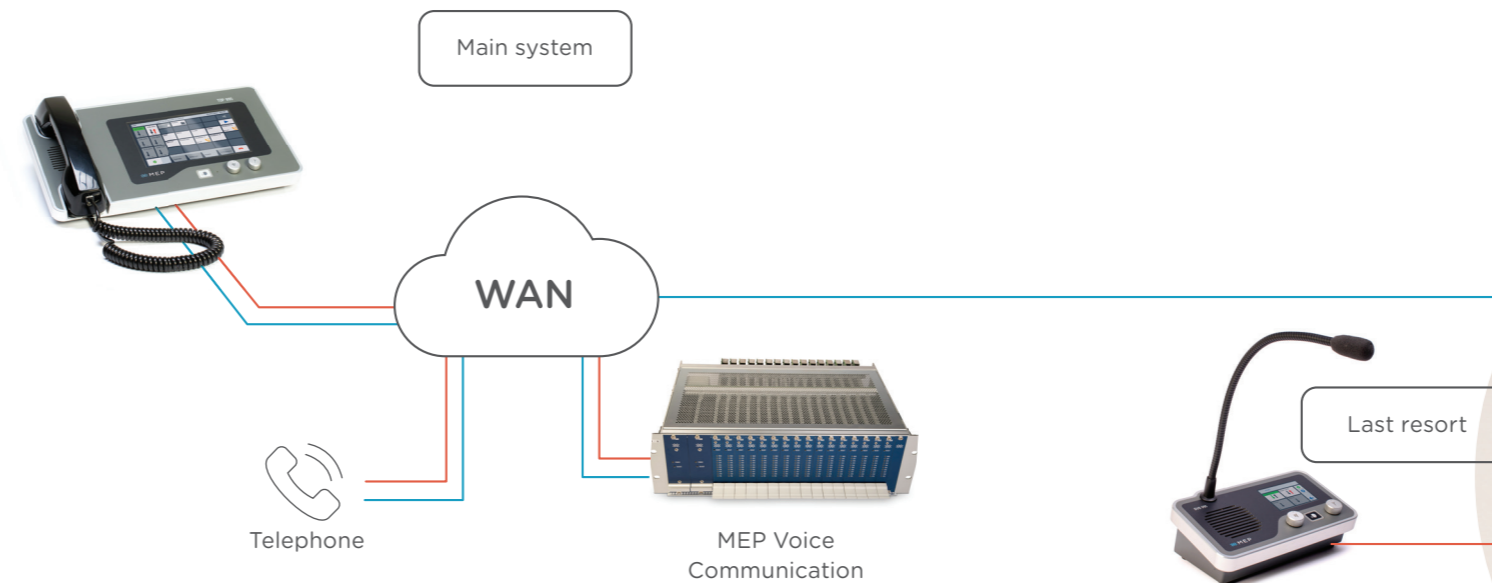
ACC System

An ACC (Area Control Center) is responsible for a large area of traffic control. Often many operators are active to ensure safe Air Traffic. A typical configuration for an ACC system would be a fully redundant MEP Voice Switch with separate networks, many radios on remote locations and integrated recording and telephony via ED137. Often chosen as operator working position is our 12.1 inch solution (TCP995) connected to 2 separate networks.



ATC System

The ATC (Air Traffic Control) center at an airport takes care of all in- and outgoing flights and ground movements. The controllers are stationed in a (remote) tower and work with a main, back up and last resort system. A typical configuration for a main system would be a fully redundant MEP voice switch, radios, PABX and recorders. Often our 5.7 (STP995) or 7 (TDP995) inch are chosen as operator working position. The last resort system consists out of our dedicated voice switch panel which is dual connected direct to the radios and will continue to work even if the two main networks fail.



Customer situation/requirements

MEP Portfolio	Mix IP and analogue connections		Only IP connections	
	<500 connections	>500 connections	<500 connections	>500 connections
TCS990	✓		✓	
Combined TCS990 gateway and IP radio gateway system (MEP or COTS hardware)		✓		✓
IP Radio gateway system (MEP or COTS hardware)				✓

TECHNOLOGY TRANSITION

Over time all Airport systems will be 100% end to end IP based. During the changeover from analogue to IP based systems, seamless integration with standards like 4 wire E&M, analogue telephone, analogue radios etc. will remain important to secure uninterrupted performance and phase out analogue components only when it makes economic sense.

The portfolio of MEP solutions allow for 100% full IP systems based on COTS hardware, based upon MEP dedicated hardware or mixed systems which can handle analogue as well as IP connections.

MEP can advise on the best choice for the customer given its situation.

EUROCAE STANDARDS

MEP is an active member of EuroCAE and helped set the ED137 standard in workgroup 67. The company continues to innovate and bring the industry forward.