



PRESENTATION / 2022

# MCX TASSTA SOLUTION

MCX Plugtests™ Programme (X Stands for MCPTT, MCData and MCVideo)

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# INTRODUCTION

The MCX TASSTA solution is applicable primarily to mission critical services using LTE access.

The solution can be used for public safety applications and also for general commercial applications.

- MCPTT - Mission Critical Push-to-Talk over LTE
- MCDData - Mission Critical Data
- MCVideo Mission Critical Video



# MCPTT - Mission Critical Push-to-Talk

A Push To Talk service provides an arbitrated method by which two or more users may engage in communication. Users may request permission to transmit (e.g., traditionally by means of a press of a button).

The MCPTT Service is intended to support communication between several users (a group call), where each user has the ability to gain access to the permission to talk in an arbitrated manner. However, the MCPTT Service also supports Private Calls between pairs of users.

# MCPTT - Mission Critical Push-to-Talk



**Private Call 1 - 1**

MCPTT user calls another user in private mode



**First-to-Answer Call 1 - 1  
(many)**

MCPTT user calls the group of users who participates this group



**Ambience Listening Call**

The dispatcher calls the remote employee and receives the audio stream in unidirectional mode

# MCPTT - Mission Critical Push-to-Talk



## Remote Ambience Listening

The employee sends a request to the dispatcher and the latter begins to receive the audio stream in unidirectional mode



## Group Call 1 - many

Mandatory call-up of group members



## Chat Call 1 - many

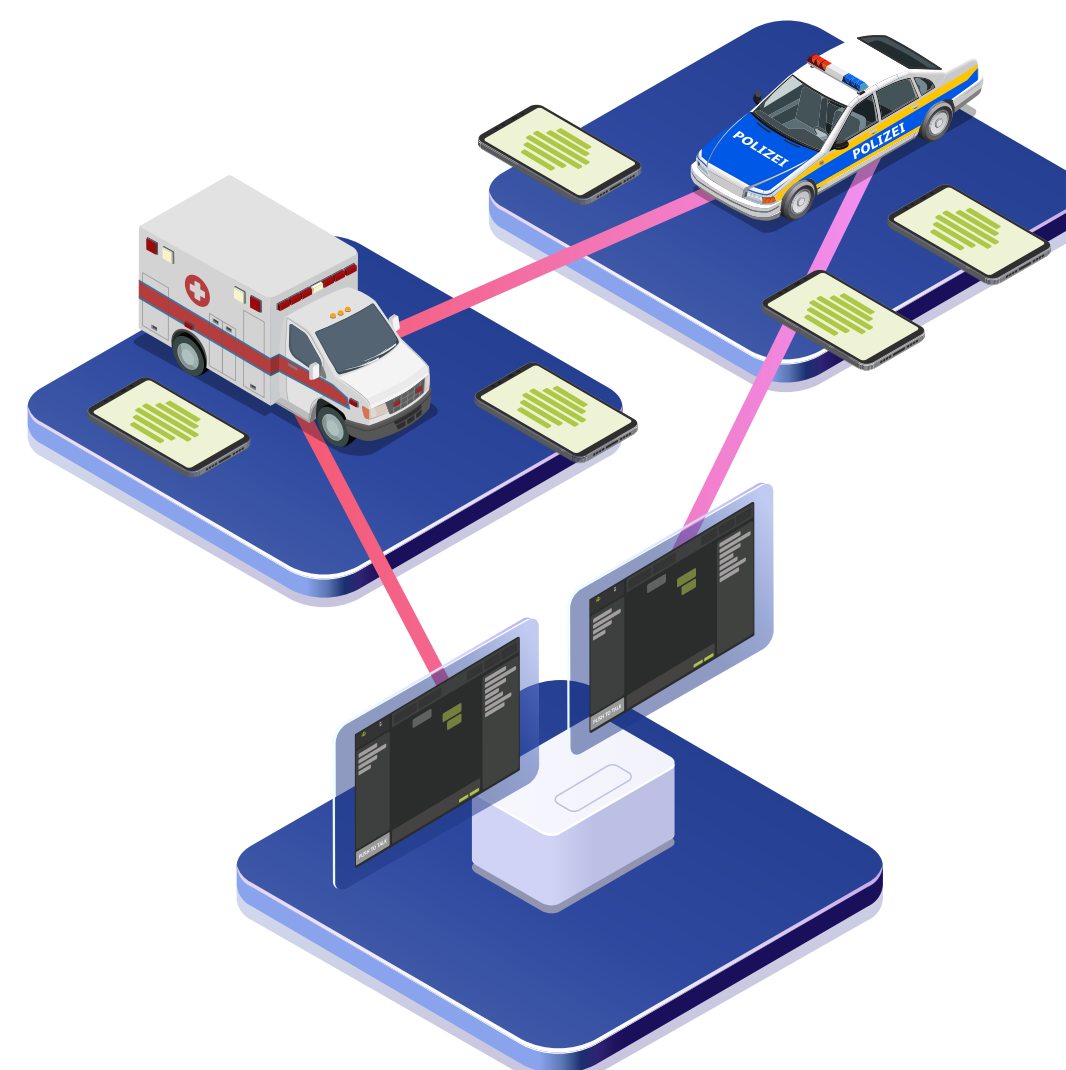
With notification for the group members

# MCPTT - Mission Critical Push-to-Talk



## Broadcast Call 1 - many

Short-term group session, which ends as soon as the caller finishes sending a voice message



## Temporary Groups

When conducting joint operations, different departments combine communication channels by creating temporary groups that consist of ordinary ones



## Two modes

In the presence of a network / without network

# MCPTT - Mission Critical Push-to-Talk



## Priority modes

Normal without priority

Emergency threat to the life and health of an employee of the department

Imminent peril threat to the life or health of third parties

# MCVideo - Mission Critical Video

Mission Critical refers to meeting the needs of agencies providing Public Safety services such as Police, Fire and Ambulance services. Those needs include high reachability, availability and reliability of the service, low latency, realtime operating capabilities, highly secured operations, private and group communications, handling of emergencies and ability to provide prioritization.

## **MCVIDEO SERVICE INCLUDES:**

- Video capture of the video information;
- Secure streaming and storing of the video information;
- Processing of the video information, including the ability to annotate video frames and recognize video features;
- Transmission and control of the parameters relevant to those functions;
- Interoperability with other services and systems.



# MCVideo - Mission Critical Video



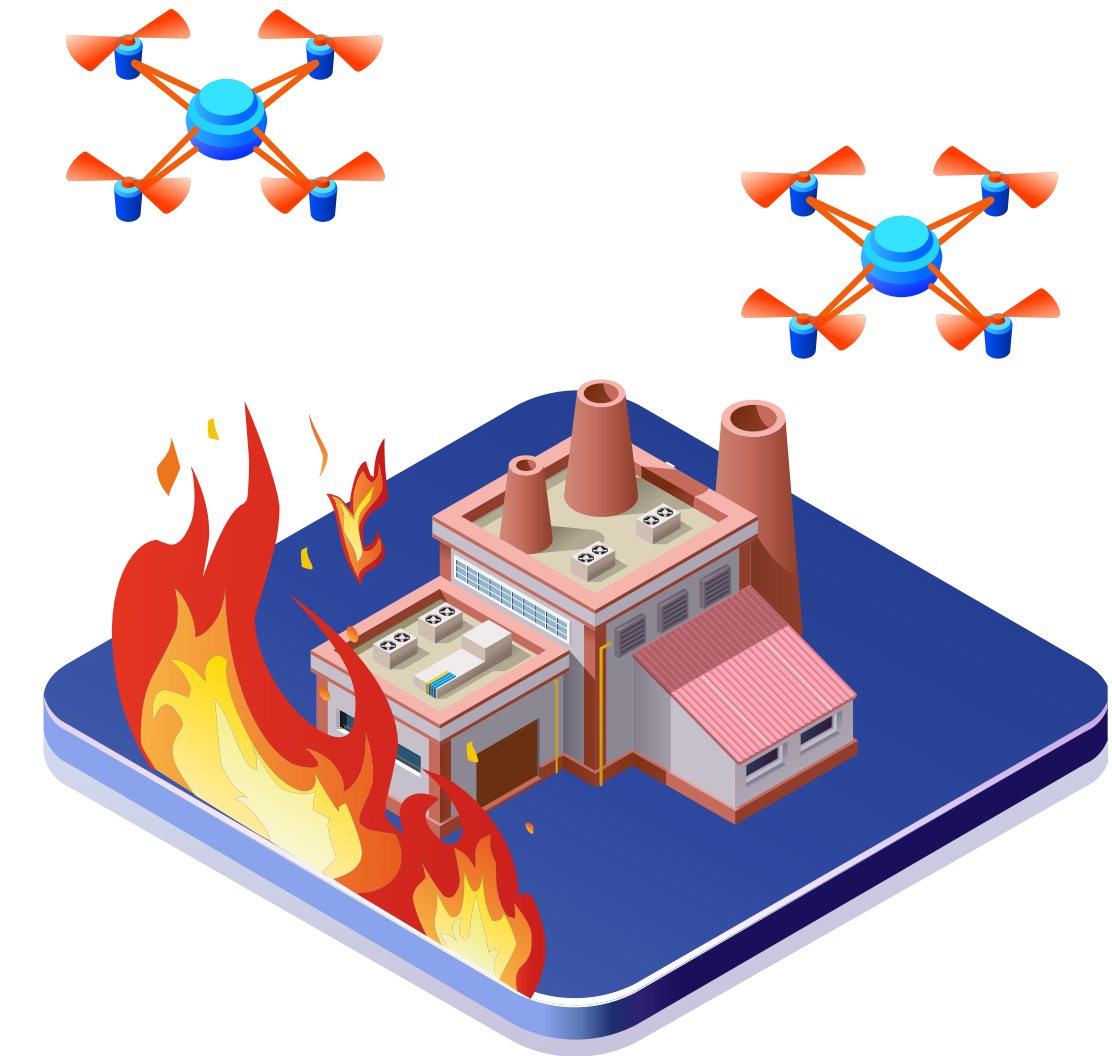
## Video Streaming

A policeman starts streaming a video stream from a camera installed in a patrol car, when a suspicious vehicle is stopped, thanks to the high resolution, the dispatcher can check the vehicle registration numbers



## Surveillance Cameras

A security company employee located in the coverage area (according to GPS coordinates) of surveillance cameras that are compatible with the MCVideo standard may request a video image



## Unmanned Aerial Vehicles

Employees involved in the elimination of the consequences of a man-made accident conduct a survey of the area dangerous to human life using an unmanned aerial vehicle equipped with a video system compatible with the MCVideo standard

# MCDData - Mission Critical Data



## Short Instant Messaging (private / group)

MCDData user sends short text message to another user or to all users who participates the group



## File sharing

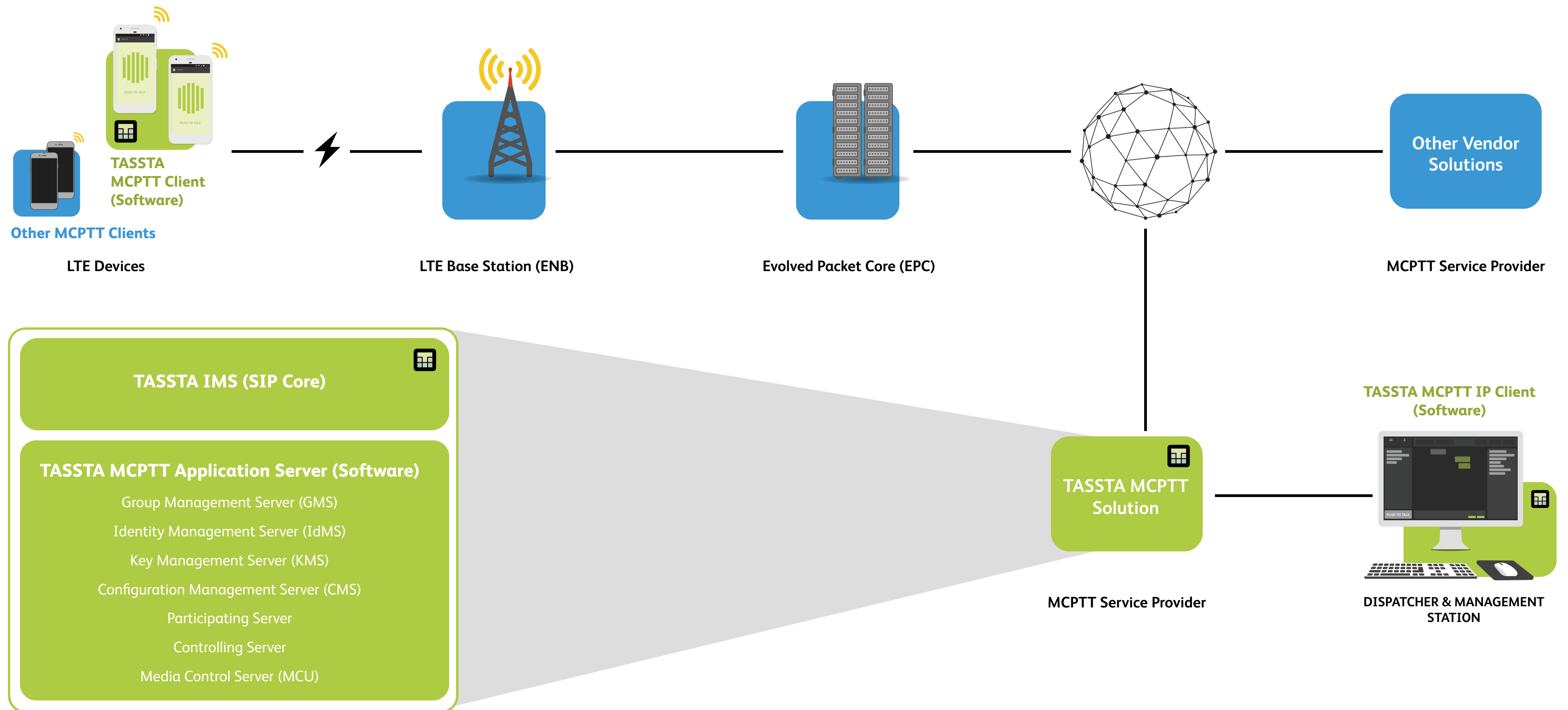
Including recorded video streams (private / group). MCDData user shares file(s) between another user or group of users who participates the group



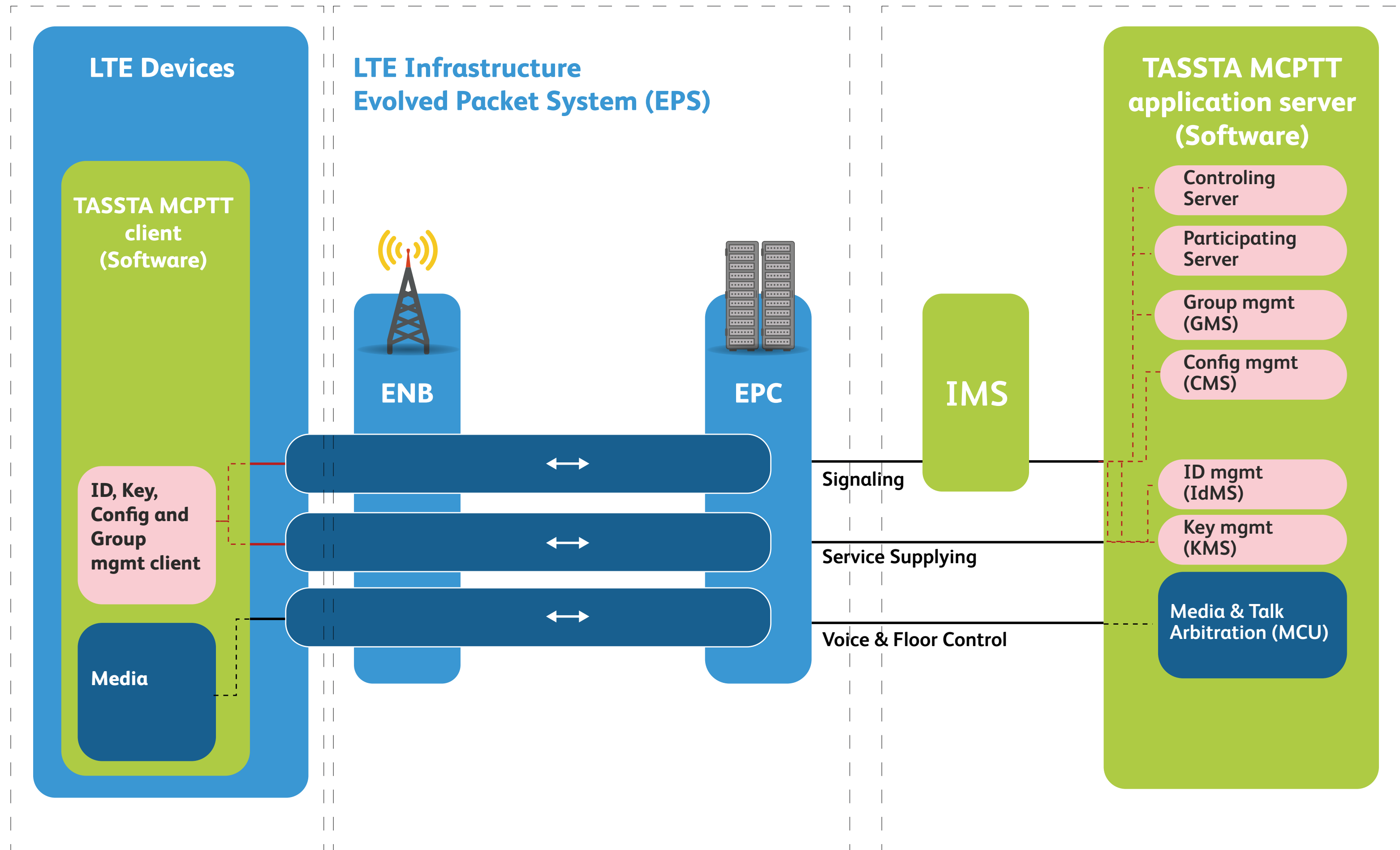
## Location sharing

Periodically or by configured triggers (for example, when entering a preconfigured zone)

# TASSTA MCPTT Scheme



# TASSTA MCPTT Technical Scheme



- GMS** Group Management Server
- CMS** Configuration Management Server
- IdMs** Identity Management Server
- KMS** Key Management Server
- MCU** Media Control Unit
- IMS** IP Multimedia System
- EPC** Evolved Packet Core
- ENB** Evolved Node Bs



**TASSTA**