Webinar, 16 Nov 2017

WEBINAR

RadioResource INTERNATIONAL

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DATE: 16 November 2017
TIME: 16:00 CET

Moderator:
Sandra Wendelken
Editor
MissionCritical Communications

Presenter:
Saurav Arora
MCPTT Plugtests Manager
ETSI

Harald Ludwig
Technical Forum Chair
TCCA

Cost: FREE

Sponsor: TCCA

Critical communications for all professional users

Webinar, 16 Nov 2017

Content of the Webinar:

- ETSI MCPTT Plugtests Events
- TCCA Introduction
- Mission Critical Open Platform (MCOP) Project

Critical communications for all professional users

Welcome to the World of Standards

ETSI

World Class Standards

WEBINAR

MCPTT Plugtests **16 Nov 2018**

Saurav Arora, MCPTT Plugtests Manager, ETSI

Short intro to ETSI

- ETSI produces globally-applicable standards for Information and Communications Technologies (ICT).
- We are officially recognized by the European Union as a European Standards Organization.
- We are a not-for-profit organization with more than 800 member organizations worldwide, drawn from 68 countries and five continents. Members include the world's leading companies and innovative R&D organizations.
- ETSI is heavily involved in 3GPP standardisation.

Motivation and Test Methodology

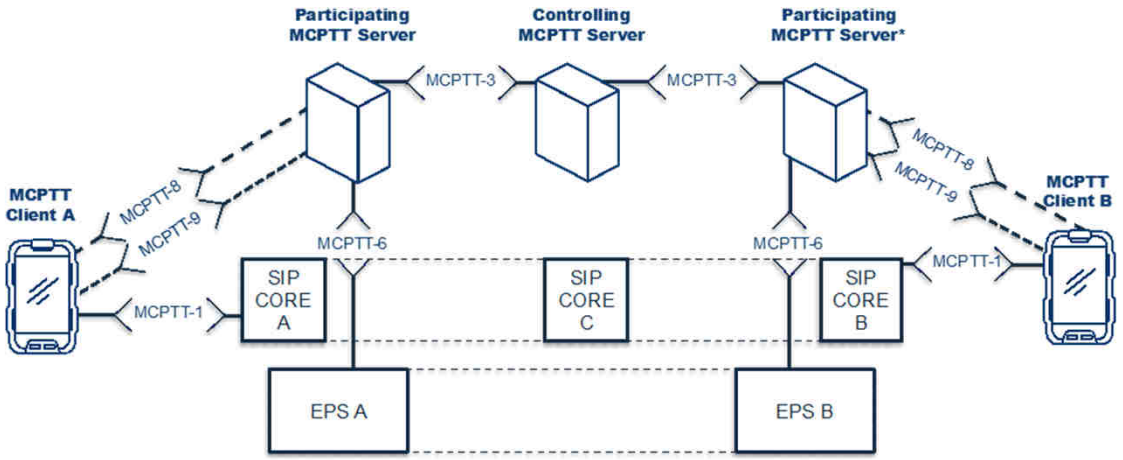
Motivation

- Unique opportunity for implementers
  - To **validate** their understanding of the 3GPP Rel-13 MCPTT features
  - To test with other **real** implementations
  - To **debug** their prototype implementations (early bug fixing)
- Contribute to the standards validation effort
  - Plugtests Result will be used to **improve** 3GPP Specifications
- Support vendors, operators and users
  - To **promote** the standards-based and interoperable Mission Critical Push To Talk (MCPTT) Service and its eco-system
  - To demonstrate end-to-end **interoperability**
- Complemented with conformance testing
  - 3GPP RAN5 MCPTT Conformance test cases expected by 2018

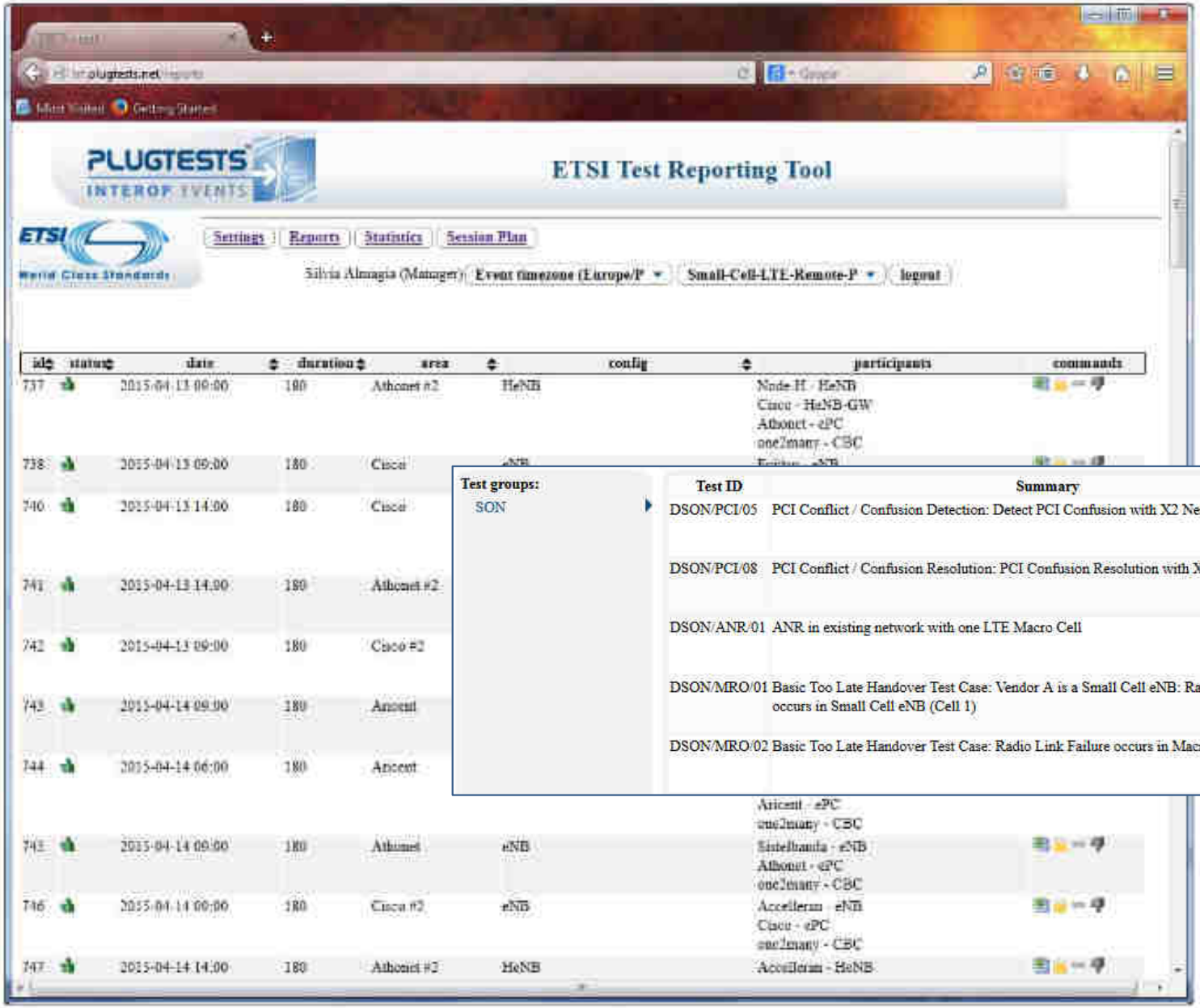
What type of tests are run in a Plugtest ?

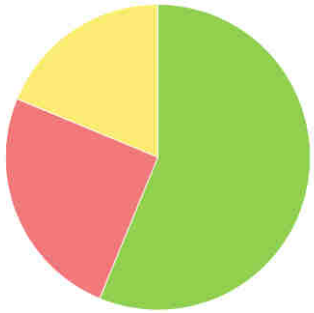
- Interoperability tests are executed
  - validate end-to-end functionality between communicating systems
- Focus lies on many different test pairings
  - The same setup will be run with different vendor combinations
  - A vendor is NOT required to implement all the interfaces

Session1 LTE Unicast	Session2 LTE Unicast	Session3 LTE Unicast
EPS A	EPS B	EPS C
SIP Core X	SIP Core X	SIP Core X
MCPTT Server 3	MCPTT Server 1	MCPTT Server 2
UE1	UE4	UE1
UE2	UE5	UE4
UE3	UE6	UE5



Test Results





Summary of MCPTT Plugtests event 2017

Some pictures

Participants

MCPTT AS:
- Airbus
- Alea
- Genaker
- Harris
- Hytera
- Nemergent
- TASSTA
- ZTE

MCPTT Clients:
- Airbus
- Alea
- Armour
- Etelm (in TETRA BS)
- Frequentis (in Control Room)
- Funkwerk
- Genaker
- Harris
- Hytera
- Nemergent
- Spirent
- TASSTA
- ZTE

User Equipment:
- Bittium
- Funkwerk

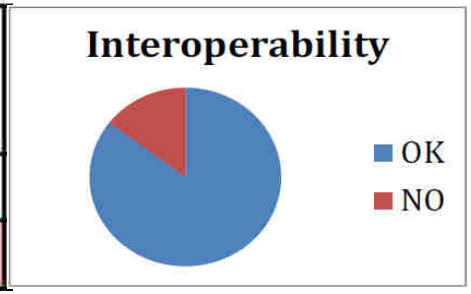
LTE Network (EPC, eNB, MBMS):
- Athonet
- Ericsson
- Expway
- Huawei
- One2many

IMS:
- Athonet

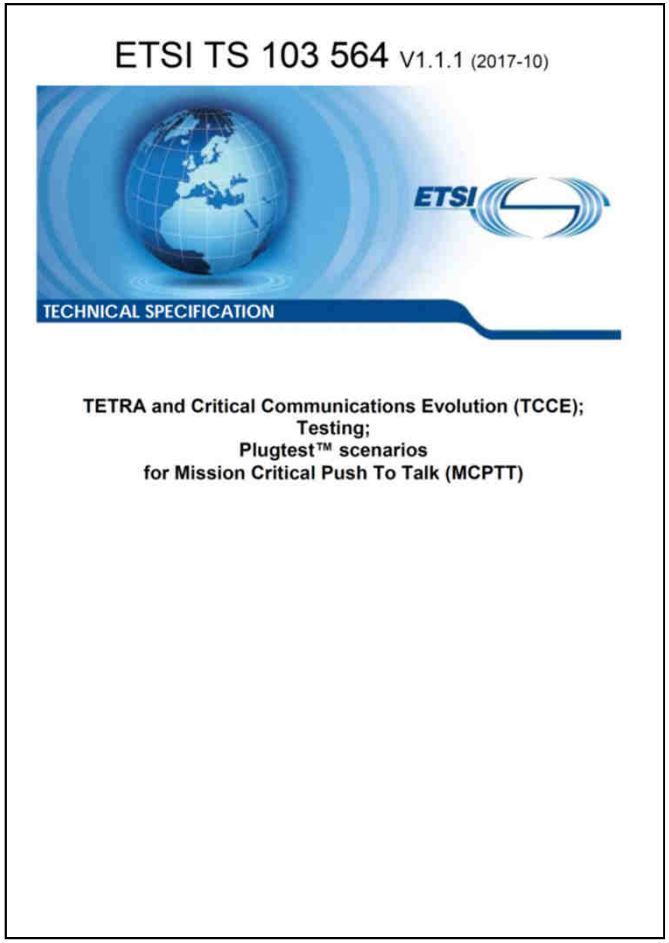
Summary

- ETSI had developed a test specification with 47 test cases including features like: Group Call, Affiliations and Floor Control.
- During the Plugtests event, a total of 160 Test Sessions were run: that is, 160 different combinations based on different configurations in Test Scope.
- More than 900 tests were conducted, with a success rate of 85%. The failed tests give the vendors valuable information to improve their implementations.
- The final tests of the MCPTT Plugtests event included pre-arranged and chat mode Group Calls, which involved several MCPTT clients, a Control Room, a LTE cab radio and a TETRA radio.

Interoperability	
OK	NO
811 (85.5%)	138 (14.5%)



Documentation


ETSI TS 103 564 V1.1.1 (2017-10)

TECHNICAL SPECIFICATION

TETRA and Critical Communications Evolution (TCCE);
Testing;
Plugtest™ scenarios
for Mission Critical Push To Talk (MCPTT)

http://www.etsi.org/


ETSI Plugtests Report V1.0.0 (2017-07)

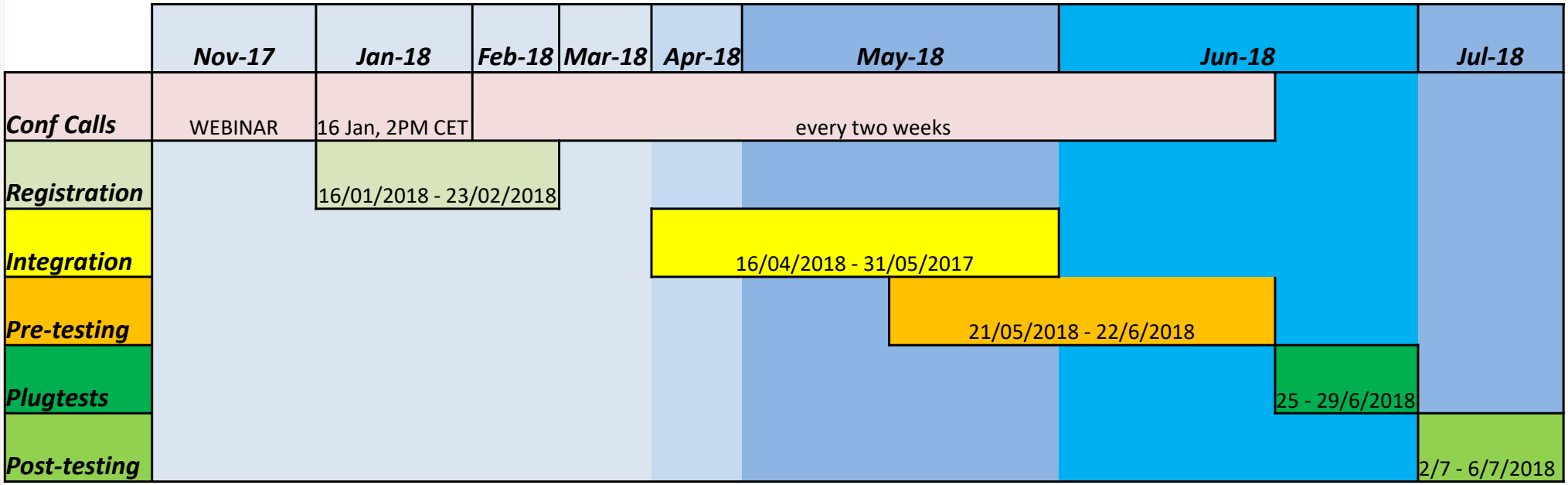
1st ETSI MCPTT Plugtests
Sophia Antipolis, France
19 – 23 June 2017

PLUGTESTS™
INTEROP EVENTS

http://bit.ly/2tRkrmq

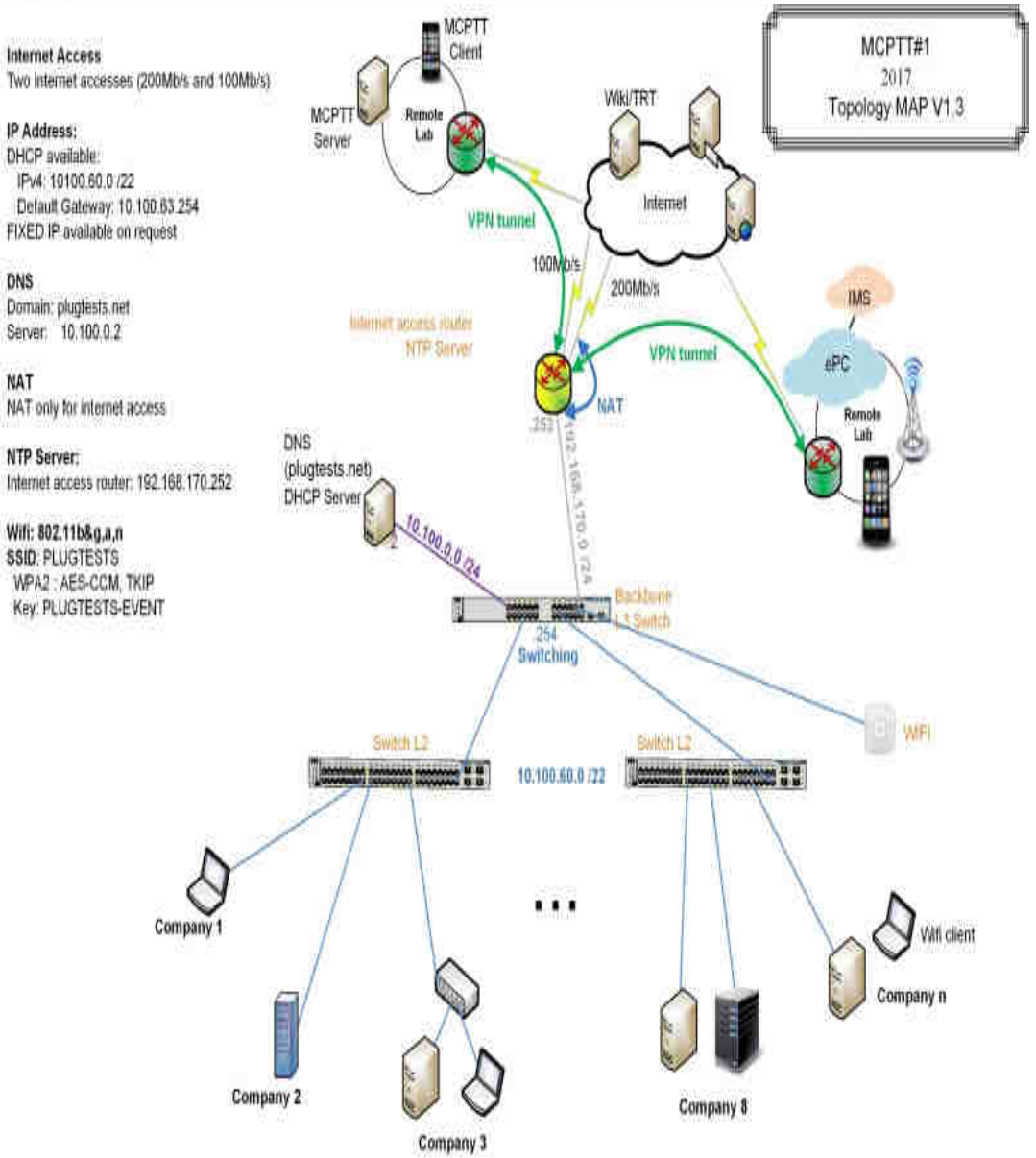
Second MCPTT Plugtests Event in June 2018

Provisional Planning



Pre-Testing

- Setup of VPN tunnels between remote labs
- Running test before the Plugtests event according to a test schedule
- Reduce ramp-up time at Plugtests.



Logistics 2018

Logistics

- When?
  - 25 – 29 June 2018
- Where?
  - Planned to be hosted by NIST, US **(to be confirmed)**
- Registration opens in January 2018
- Each participant needs to register
  - Only companies who have registered participants, can attend the conference calls and access the event WIKI
  - Names of attending engineers can still be modified until late
- Upon registration you will
  - receive a NDA which you need to return signed
  - once NDA is signed we send you the WIKI credentials
  - Add you to the Plugtests mailing list MCPTT_PLUGTEST@list.etsi.org

Next Steps

Test Scope

- Help to define the test scope (Scope not defined Yet)
  - Industry is interested in MCPTT Security, MCDATA and MCVIDEO.
  - Send your contribution to the test scope by email to saurav.arora@etsi.org.
  - Review existing test spec , and provide feedback on the new test scope via the email list.

Next Steps

- Join the open conference call
  - 16 January 2018 2PM CET
- Register to the event
- Sign the NDA
- Participate to the conference calls (2 weekly basis)
  - Test Scope
  - Test Infrastructure
  - Test Scenarios
- Target: final draft of test document available by end of March

Saurav Arora

MCPTT Plugtests Manager

T: +33 4 92 94 43 08

M: +33 6 80 95 22 55

E: saurav.arora@etsi.org

Thank you!

Introduction to the TCCA

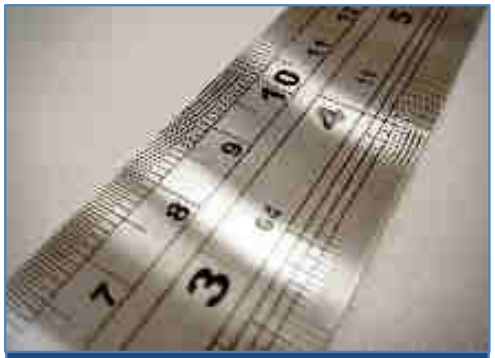
Webinar, 16 Nov 2017

Harald Ludwig

TCCA Technical Forum Chair

Critical communications for all professional users

The Critical Communications Association



Supporting open and standardised mobile critical communications technologies and complementary applications.

Catalysing competitive multivendor markets world-wide through open standards and harmonised spectrum.

Members are end users, operators, industry and other stakeholders globally sharing knowledge and experience.

Collaborative working across the critical communications ecosystem to develop and drive the most effective solutions for all.

Critical communications for all professional users

The TCCA Work

We inform, advise and have a strong influence on the direction of the industry.

3GPP

A GLOBAL INITIATIVE

We catalyse and drive the evolution of LTE towards becoming a truly critical communications-grade bearer.

We facilitate the maintenance, development and enhancement of the ETSI TETRA standard, and manage the interoperability process.

Critical communications for all professional users

TCCA Approach to Broadband Testing & Certification

TCCA Supports and is actively Working towards a
Global Test & Certification Framework
for Mission Critical Mobile Broadband Communications

- Common Global Test & Certification Criteria
- Test Results and Certificates Mutually Recognised and Trusted
- Harvesting of Existing Testing & Certification Processes as far as possible

Benefits:

- Reduce Efforts and Costs for Users, Operators, Vendors and Developers
- No Duplication of same or similar Tests and Certification
- Pooling of Resources
- Sharing of Information, Experiences and Knowledge

Critical communications for all professional users

Harald Ludwig
Chairman TCCA Technical Forum
harald.ludwig@tcca.info
www.tcca.info

Critical communications for all professional users

Mission Critical Open Platform (MCOP) Project

Project Overview

Webinar: MCPTT Interoperability, Results and Future Projects

16 Nov 2017

Bittium EXPWAY TCCA Universidad del País Vasco Euskal Herriko Unibertsitatea CAMPUS OF INTERNATIONAL EXCELLENCE

Harald Ludwig
harald.ludwig@tcca.info

v2

Content of Presentation:

- Background to Research Project
- Innovation and Barriers for Mission Critical Applications Development

- The MCOP Approach
- Project Objectives

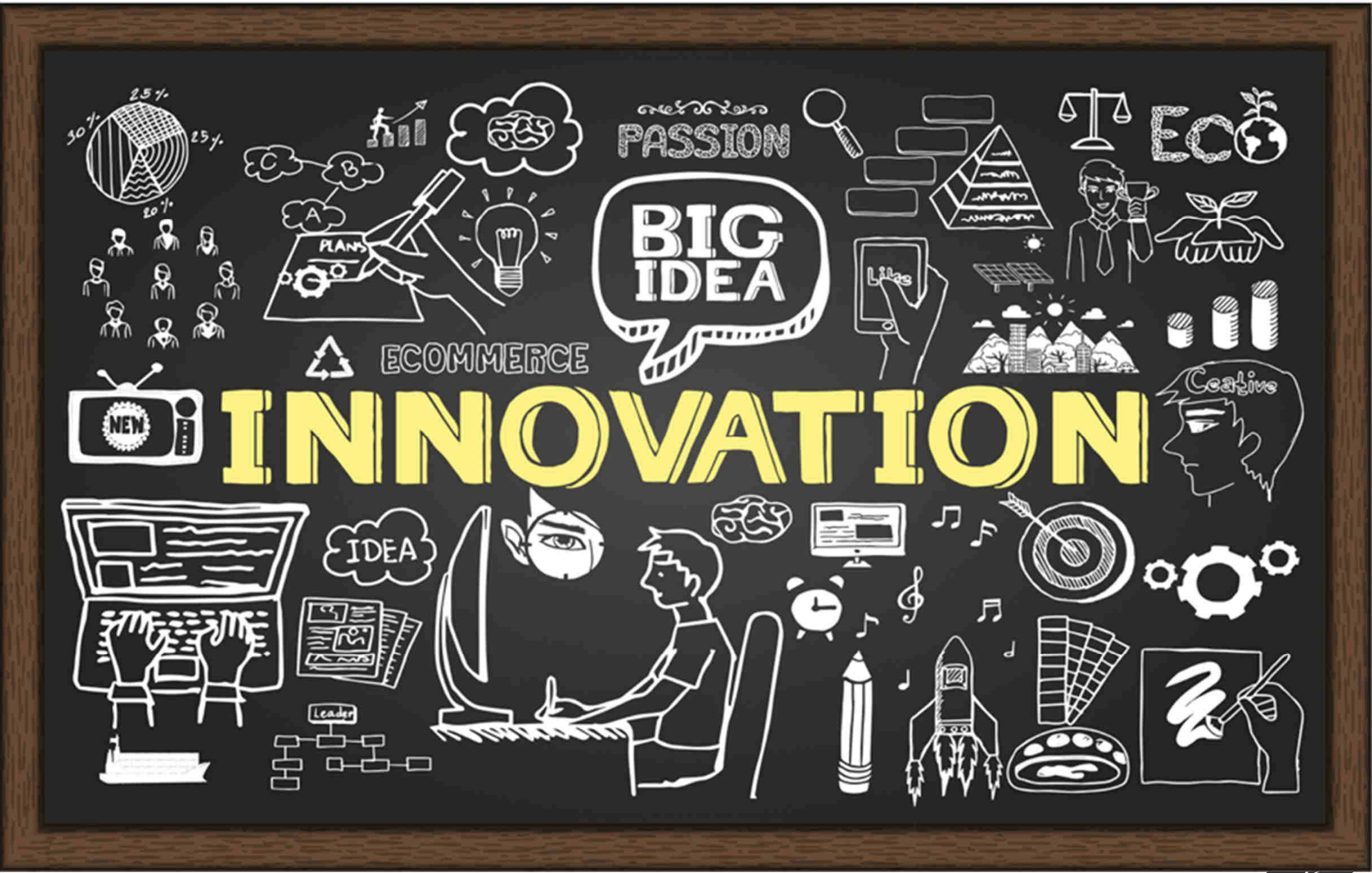
- Stakeholders
- Benefits

Research Project Background

- Funded by the **NIST** (National Institute of Standards and Technology, part of the US Department of Commerce)
- NIST Public Safety Communications Research Division (**PSCR**)
- Public Safety Innovation Accelerator Program (**PSIAP**) Grant 2017

- Website: www.mcopenplatform.org
- Project will run for 2 years (until June 2019)
- Project Partners: UPV EHU, EXPWAY, Bittium, TCCA

Innovation in Mission Critical Area



Innovation in Mission Critical Area

Avoiding the Narrowband Pitfalls

- ~~Several Technologies~~

→ 3GPP A GLOBAL INITIATIVE

- ~~Small Market~~

→ LTE

- ~~Proprietary Platforms~~

→  

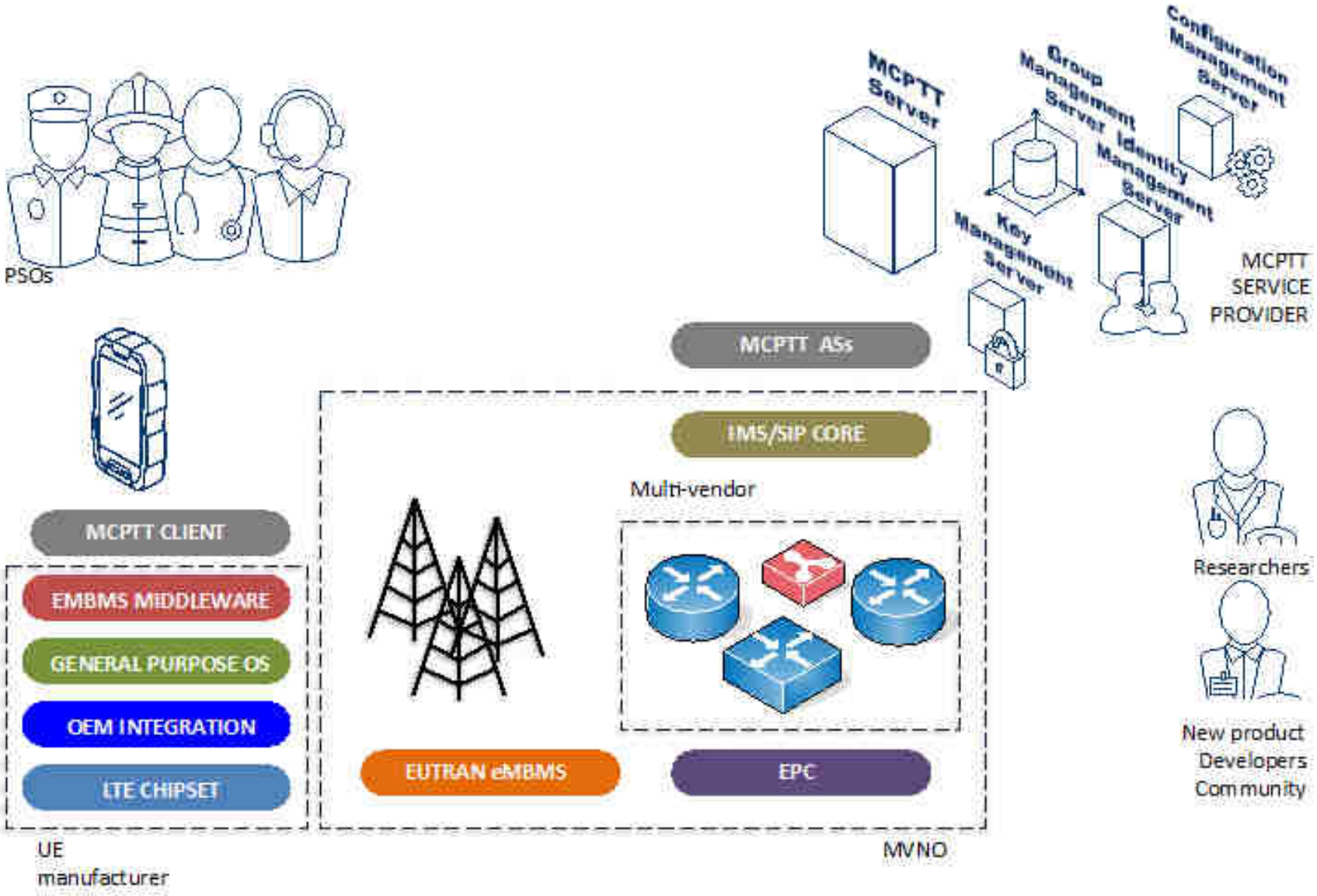
- ~~No Interoperability~~

→ 

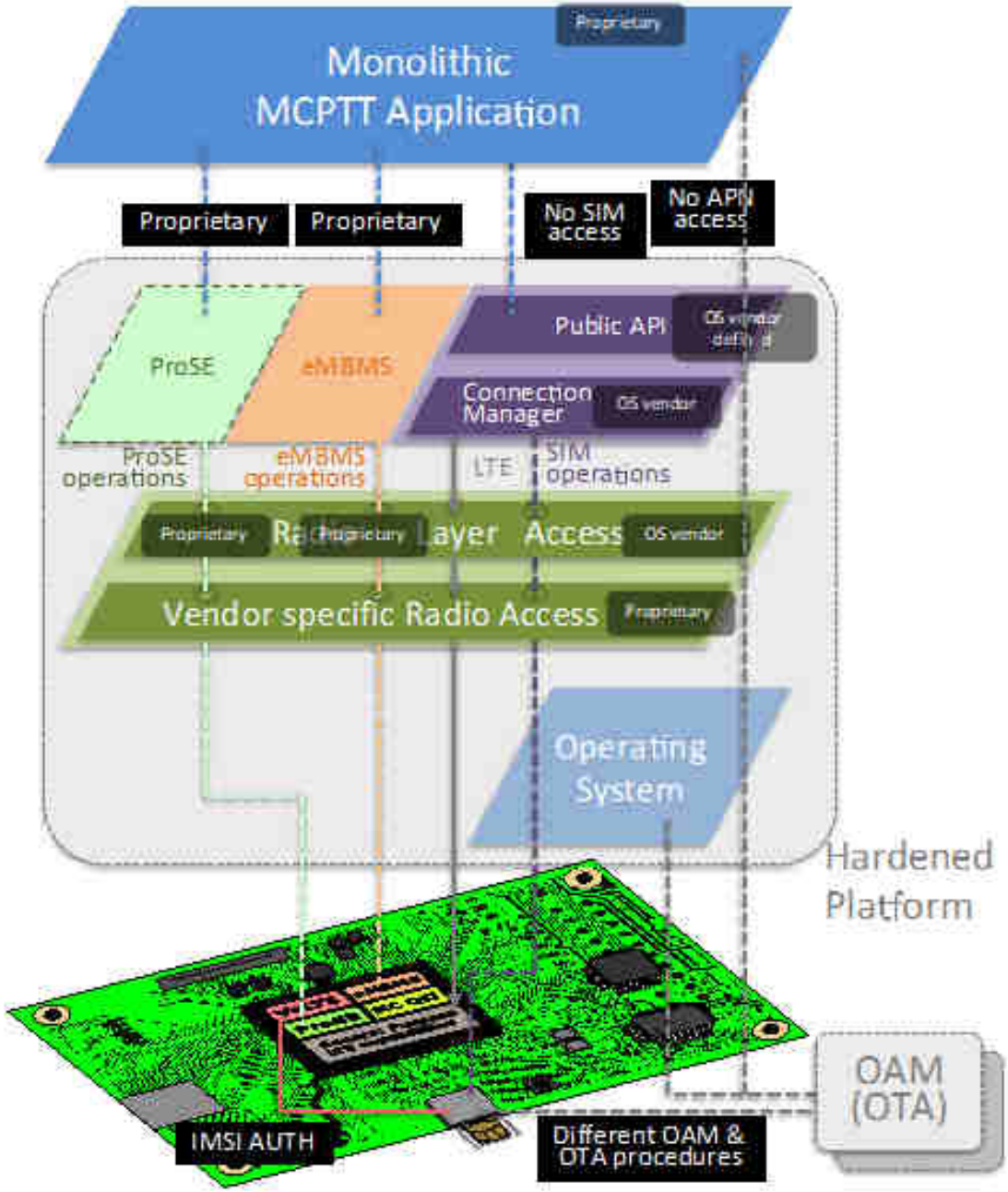
PSCR

Mission Critical LTE Ecosystem

- But Still a Very Complex Ecosystem:

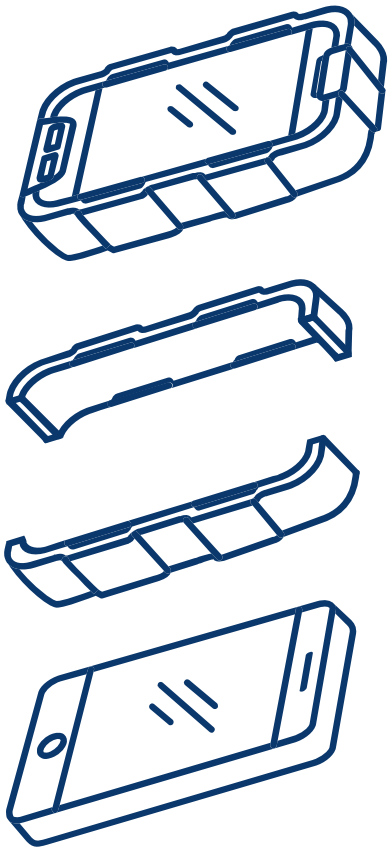


Challenges within the UE



The MCOP Approach

MCOP OAM/OTA OPEN ACCESS



Demo APP

3rd Party App

MCOP Unified Open Application API

MCOP Open Source SDK

MCPTT CLIENT

MEDIA MIXER

FLOOR CTRL

Group Management clie

Configuration Management clier

Identity Management client

MCOP Integration API

OS
+ HARDWARE PLATFORM

Live Testing Platform

MCOP Project Objectives

- Gather and Agree **Common Requirements**
- Analyze **Architectural Problems**

- Define an **Open Platform**
  - including different level APIs
- **Validate** Architecture and Intermediate APIs

- Deploy and maintain a sustainable **Testbed**
  - **live on-site testbed** @NIST and
  - **online testbed**
- **Disseminate** the Results

MCOP Stakeholders (1)

- Mission Critical **Application Developers**
  - Will use the MCOP API
- Device **Manufacturers**
  - Will integrate the MCOP API on their devices

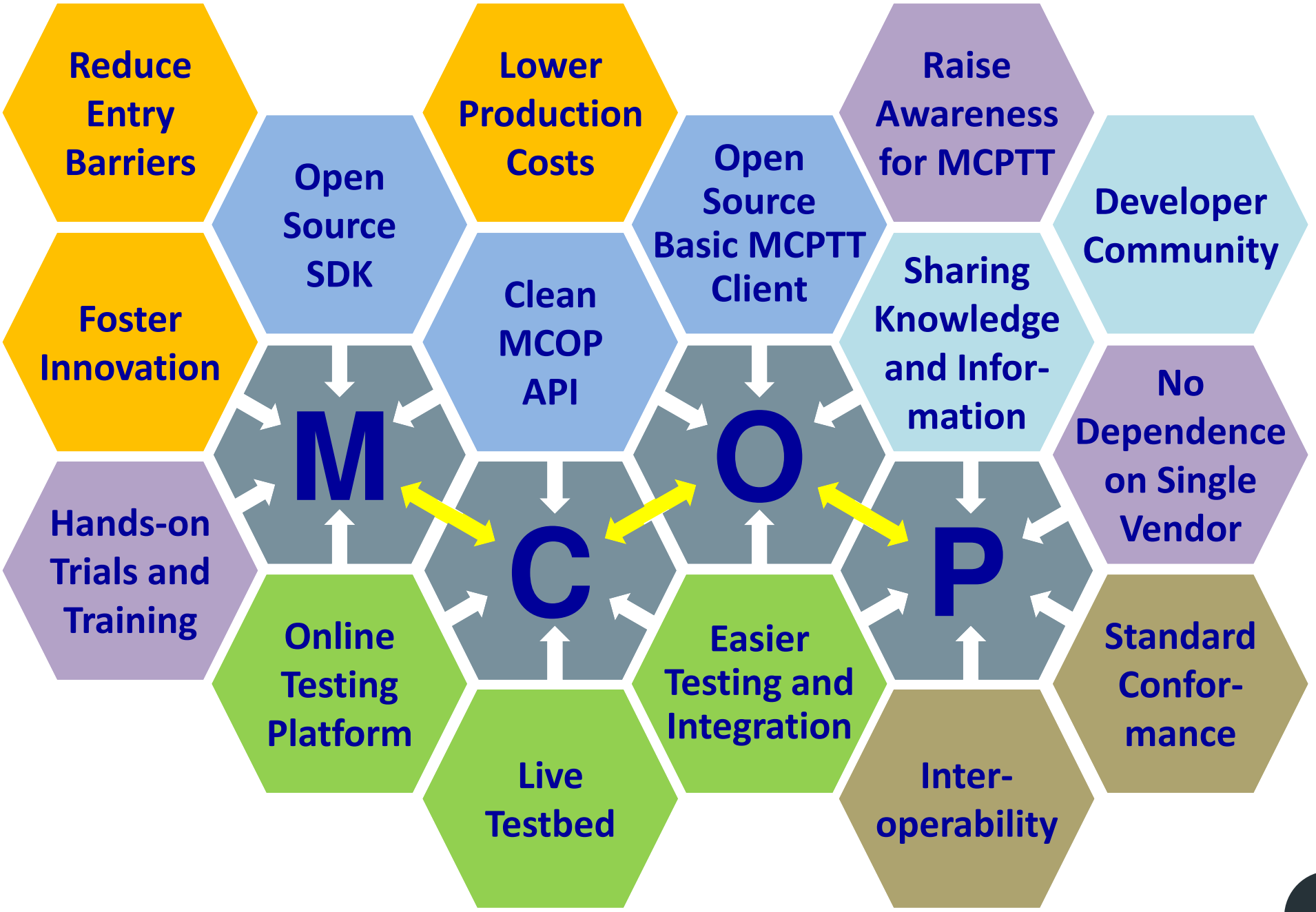
→ **We Want Your Inputs & Requirements!**

MCOP Stakeholders (2)

- **Users** of Mission Critical Devices and Apps
- Mission Critical **Network Operators**
- National Mission Critical Project **Authorities**

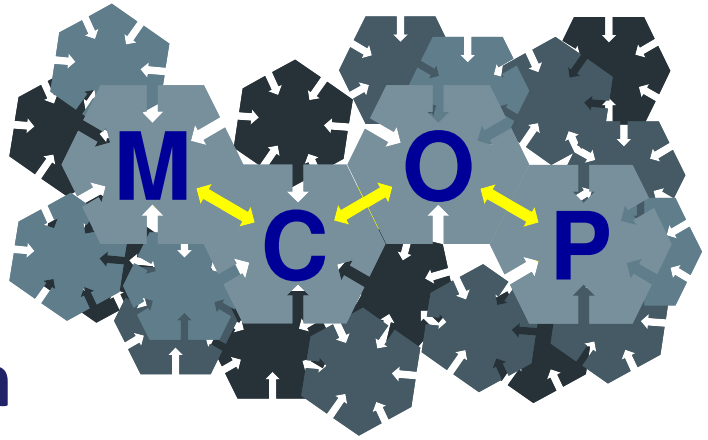
→ **We Want You to Consider the MCOP API for your tenders, purchases and procurements**

MCOP Benefits



NIST PSIAP
FEDERAL AWARD ID: 70NANB17H151

Mission Critical Open Platform



Register your Interest at
www.mcopenplatform.org

@mcopenplatform

www.linkedin.com/company/mcop

Bittium EXPWAY TCCA

Universidad del País Vasco · Euskal Herriko Unibertsitatea · CAMPUS OF INTERNATIONAL EXCELLENCE

Harald Ludwig
harald.ludwig@tcca.info

Questions?

ETSI MCPTT Plugtests

TCCA and MCOP

Saurav Arora
ETSI MCPTT Plugtests Manager
saurav.arora@etsi.org
+33 4 92 94 43 08
www.etsi.org

Harald Ludwig
TCCA Technical Forum, Chair
harald.ludwig@tcca.info
+43 699 1718 4567
www.tcca.info

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