Questions & Answers from the Webinar on 16 Nov 2017

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MCPTT Plugtests Related Q&As

Question	Answer
How are ETSI Plug fest and TCCA certification program related? Please explain.	The ETSI Plugtest is only for testing, there is no certification. TCCA is working on a global framework for mission critical testing and certification.
For MC-PTT, using MCPTT-3 interfaces over multiple EPS A, B, was MCPTT Session handover from one MC-PTT server to another server tested?	No, this handover was not tested.
What MC-PTT tests were done using the MCPTT-3 interface?	The MCPTT-3 interface (interface between MCPTT server and another MCPTT server) was not tested in the first Plugtest
3GPP LMR/LTE Interworking is being specified in 23.283. Will the 2nd Plugtest include tests for 23.283?	The scope for the second MCPTT Plugtest is not fixed yet. But if vendors have implemented the interworking and want to test it we will consider it.
For the configuration managament - what is the standard being planned and its testing? Is there any plan for the OMA- Device Management standard being adopted on this and its test plan	3GPP Rel-13 makes use of different CSC servers (IdMS, GMS, CMS and KMS) and related protocols (i.e. Open ID Core Connect, OMA XDM) for basic OAM operations. Furthermore, 3GPP defines MCPTT specific Managed Objects and related configuration files in the SIM card (which may finally use the OMA DM provisioning mechanism). In the Plugtests only features from the 3GPP MCPTT standards are tested. If the OMA DM will be included into the 3GPP standards we can consider it for the Plugtests.
Is there any plan to have IOPS (Isoltaed operation standard) or direct mode features as part of plugtest	The scope for the second MCPTT Plugtest is not fixed yet. Our understanding is that Device to Device Coomunication is not yet implemented in products. Therefore it is unlikely to be tested in 2018.
Any inter-op testing was done on Group list with OTT-PTT vendors and MCPTT users	No. Will be considered for the second Plugtest if a standardised interface is used and it is supported by vendors
The encryption end to end test will be performed with vendors who match specifications? What about systems with no encryption features?	In the first MCPTT Plugtests only clear communication was tested, no encryption. Encryption can only be tested if supported, systems without encryption feature cannot test encryption.
On Plugtest: 1st plugtest was based on 3GPP rel 13, What is the plan for the second one, still rel 13, or 14?	Features of Rel-13 and Rel-14
Does the plugfest test multicast capability?	In the first Plugtests eMBMS was tested on the Core side only (MB2-C/U interfaces), not with the UEs. eMBMS will be considered for the second MCPTT Plugtests.

Will MCPTT Plugtest #2 contain real world type test scenarios i.e end to end MCPTT cases?	End-to-End MCPTT group calls across different vendor's equipment was actually tested at the end of the first Plugtests. See the Test Report (http://bit.ly/2tRkrmq)
Is there plan to test the MCPTT location services?	Yes. Will be considered for the second Plugtest if supported by vendors.
During the plugtest testing activities, was there any case where the MCPTT server was integrated with a separated 3GPP-standard IMS system, to provide the SIP session management capability? I have noticed that MCPTT server implementations have their own SIP session management capability embedded	Most of the tests were carried out with an IMS from another vendor than the MCPTT Application Server vendor. Only a few MCPTT Application Servers had integrated their own SIP Core.
in plugtest, will it possible to test Control Room dispath to MCPTT UE ?	Yes, as far as the implementations follow 3GPP MCPTT standards
Is there a plan to test the high priority access (Access control class 11 to 15) along with MCPTT solutions	High priority access was not tested in the first Plugtest. Can be considered for the next Plugtests.
plug-test: any plans to test off-network MCPTT?	Will be considered for the second Plugtest if supported by vendors.
Please explain more about use of the terms "interoperatility", "conformance", and "performance" as types of testing included or not included in the scope of the MCPTT Plugtests.	ETSI defines a clear scope of the Plugtests series on interoperbility. Conformance is currently still under consideration in 3GPP's RAN5 WG. Performance was not finally tested although intiatially considered since there are some KPIs already defined by 3GPP for MCPTT. The first Plugtest was a pure interoperability event which was complemented with conformance and performance tests.
Is there any performance or KPI tests being conducted or planned for the 2017 plugin test or the plan on 2018 plugtest	Will be considered for the next Plugtests
Was QoS tested during the 1st MCPTT Plugfest?	Yes. Will be considered for the second Plugtest if supported by vendors.
In Release 15, MC Communications Interworking specification (23.283) and MC System Migration and Interconnection will be available, will the second plugtest in June next year?	Will be considered for the second Plugtest if standardisation is finalized and supported by vendors.
Is the interoperability with PMR legacy systems considered to be tested during future plugtests events?	Will be considered for the second Plugtest if standardisation is finalized and supported by vendors.
About interoperability, you mentions Tetra and P25, is Tetrapol considered also ?	Will be considered for the second Plugtest if standardisation is finalized and supported by vendors.
Will future plugfests include LTE/LMR Interworking?	Will be considered for the second Plugtest if standardisation is finalized and supported by vendors.
Currently most MCPTT apps must connect over ISSI to a P25 system, will this be part of the future test suite and will all major P25 vendors be invited to be part of the test?	Will be considered for the second Plugtest if standardisation is finalized and supported by vendors.
One of the main purposes of developing MCPTT in 3GPP was to provide interoperability between LTE and LMR/DMR networks. What work is being done and needs to be done to evalute interoperating Tetra, P25 and DMR networks with LTE?	3GPP SA6 has defined the interface for interworking with non-LTE systems. It is up to other organisations to define the interworking functions for the corresponding technologies like TETRA, P25, DMR, etc. For TETRA ETSI TCCE WG4 is defining this interworking function.

For the plugtest, is it possible to connect to MCPTT server directly with IP interface without WIFI or eNodeB ?	Yes
What Chipsets will you be using to test Release 14?	Depends on which chipsets the vendors are using in their products
Did testfest include the scenrios including partner systems?	No. Will be considered for the second Plugtest if supported by vendors.
Does MC-PTT AS access user profile info from the HSS of the LTE core network? If so, will it use the User Data Convergence architecture of the 3GPP?	All the plugtests define the Devices Under Test upon the analysis of the availability of specific nodes from different vendors. So, external interfaces were mostly under consideration (and no standalone HSS was used but internal user databsae). However, since MCPTT-2 reference point considers diameter and TS 29.283 and could therefore be incorporated to 2018 plugtests if requested by vendors.
Is there protocol simulator to test during development, before the plug test ?	No the plugtests includes the implementation from vendors and no simulator was used. The pre-testing stage allows preliminar testing with other vendors based on their willingness to interoperate.
Can you say why Nokia and Motorola Solutions did not participate?	Participation in the MCPTT Plugtest is volunteer, we do not have any information why vendors did or did not participate.
Can you speak to why none of the large wireless carriers did not participate?	Participation in the MCPTT Plugtest is volunteer. Carriers are welcome to participate in the upcoming Plugtests.
Do organisations need to be a TCCA member to participate in plug tests?	No. TCCA membership is not required. ETSI membership is not required.
Was Wave 7000 tested within the Plug Test	No. Motorola Solutions (vendor of the WAVE system) did not participate in the first MCPTT Plugtest

MCOP Project Related Q&As

Question	Answer
Is there any plan for MCOP on using iOS platform	No. The APIs will be "technology neutral" but the open source client will consider Android architecture only.
MCOP: Are the SDK/APIs targeted only towards Android or are there other platforms considered, iOS for instance?	No. The APIs will be "technology neutral" but the open source client will consider Android architecture only.
How will MCOP handle the different android versions, and the ongoing upcoming new versions?	The definition of the two different APIs will consider "loose coupling" as the main design principal. This, together with neat interfaces aims at relieving any third party apps to be isolated from possible changes, that will be absorbed by the SDK/low level plugins instead.
Which Android OS version is been planned to be used with MCOP client?	Existing pre-MCOP codebase had only the API >17 limitation, so no specific version is considered as prerequistie.
Is the MCOP API developped in Java? C? What's the UE operating system target?	The API will be technolgy neutral so that any other stakeholder would be able to provide a compatible SDK/integration componentes in any languages. Existing pre-MCOP codebase uses both, native C libraries and Java upper layers.

On the MCPTT Client - Is the client integrated or embedded within the OEM/Device vendor or it is downloadabale client?	Since firmware based solutions would again impose a big entry barrier for developers and other stakeholders, Apps are considered. The need for system level or userland Apps will depend in implementation specific details.
Are any biggger UE vendor's shown interest on MCOP project yet?	Yes, we are in touch with other vendors and will try to reach an as broad as possible consensus in the industry. Any comments, inputs and contributions are more than welcome.
Will MCOP API enable access to the Device UICC, USIM, ISIM according to the 3GPP TS 31.102 Device SIM architecture?	Yes. Already in the early project days we have checked the feasibility of doing so from different entry points in the OS stack.
MCOP: Are you considering integrations with Bluetooth devices, for example for Indoor location ?	We focus on pure 3GPP Rel-13 standardized capabilities. That means that location will be conveyed to the MCPTT AS folllowing the proper signalling. Assisted in-door location would be no doubt contribute to a better location but Bluetooth or any other indoor location technologies will not be considered in MCOP.
Will the API/SDK be flexible enough for vendors to send proprietary control messages through to devices? I.e. if a vendor wants to implement a special feature that isn't explicitly defined in any standard.	In MCOP we strongly believe in standards and interoperable solutions. The API will therfore cover only standardized signalling. But considering the open approach and availability of different open source components, a certain degree of extensibility will be possible.
Will MCOP handle also other MCX's: MCVIDEO & MCDATA?	Our commitment according to the MCOP proposal is MCV (mission critical voice) following MCPTT as defined in 3GPP's Rel13 only. We'll be anyway actively working in improving and incorporating new functionalities within and after MCOP official lifetime.
Will MCOP API work together with TMF Open APIs, ETSI MEC API, OMA Open APIs and any others?	During the project we will continously monitor the activities in most relevant Standards Developing Organisations (SDOs) like 3GPP, ETSI, OMA, etc. MCOP is focused on 3GPP Rel-13 compliance. Therefore the activities in 3GPP on the eMBMS API, CAPIF and RAN5 MCPTT conformance tests will be considered first. But we are open to accomodate any feedback from other SDOs (some of them have been contacted by the MCOP project during the initial phases)
3GPP is working on a Common API Framework (CAPIF) for the Server side, will the MCOP API become part of that 3GPP 23.222 CAPIF specification in 3GPP Release 15.	We are continously monitoring 3GPP activites like CAPIF. The MCOP project will be in contact with 3GPP working groups, but this does not ensure that 3GPP will include the MCOP API into their specifications. The current CAPIF activities are different from the MCOP API. CAPIF focuses on the northbound interface from a network service point of view (as per TR 23.722). The MCOP API is for an Application in the UE.
Seems the scope of MCOP is limited to device side? Are there any plans for developing network service APIs?	MCOP is focusing on the APIs in the UE.

How is this project linked with 3GPP? Are there any synergies with the 3GPP SA6 work items CAPIF and MBMS-API??	During the project we will continously monitor the activities in most relevant Standards Developing Organisations (SDOs). CAPIF has a different scope than the MCOP API as it focuses on the network northbound API. But we are following the MBMS API activities in 3GPP SA6.
MCOP: Are you going to provide any API or tools for Control Rooms applications? Maybe through Web technologies?	MCOP focuses on a "regular" UE. Although being an open API it could be ported for a Control Room as well. Extensions to the API may be necessary to support certain Control Room functions which are not available to "regular" UEs.
Is the MCOP API applicable for control room applications? it seems that appearing as a UE has too many limitations for monitoring multiple simultaneous talk groups.	MCOP focuses on a "regular" UE. Although being an open API it could be ported for a Control Room as well. Extensions to the API may be necessary to support certain Control Room functions which are not available to "regular" UEs.
For the MCOP: IP connected MCPTT Clients are also included?	The MCOP SDK will provide IP layer connectivy and the underlying integration API will support Mission Critical grade LTE capabilities. This makes it posible to connect clients via IP. The MCOP on-line testbed will support the testing of such clients.
Is the MCOP Approach/API something that is intended for end-user devices, or within the application servers as well?	For the UEs only.
On which 3GPP release the MCOP is planned	3GPP Rel-13
MCOP: will it be open source platform?	The APIs will be open and an open source SDK will be released. Vendor specific plugins will be released according to each vendor's licensing terms.
WOW! This is awesome. What are the costs associated with joining the MCOP project? What about licensing? Can vendors still develop proprietary applications with this SDK, or will the licensing be similar to GPL where any linked application code needs to be offered?	MCOP is funded my NIST PSIAP program and aims at fostering the Mission Critical Application developer community, far away from a commercial alliance, lobby or showcase for products. No specific collaboration scheme has been defined yet, but no costs are forseen. The SDK will be released with a dual GPLv3/commercial license in order to allow different commercial possibilities. But any vendor can use the open MCOP API definition and provide an alternative SDK with an MCOP compatible API.

Are there any costs involved for organisations participating MCOP?	MCOP is funded my NIST PSIAP program and aims at fostering the Mission Critical Application developer community, far away from a commercial alliance, lobby or showcase for products. No specific collaboration scheme has been defined yet, but no costs are forseen. The SDK will be released with a dual GPLv3/commercial license in order to allow different commercial possibilities. But any vendor can use the open MCOP API definition and provide an alternative SDK with an MCOP compatible API.
What is the rough timeline for getting a first version of MCOP?	We plan to release an initial monolithic client (i.e. pre-MCOP - *not* providing the to-be-defined APIs) and the on-line testbed facility early in 2018. The majore target milestones for the MCOP-compatible SDK are M12 (June 2018), M18 (end 2018) and M24 (June 2019). Between these major miletones continous updates and bug fix releases will be released.
We have seen that the MCOP doe snot have any SW releases yet. Could you tell us about the timelines and expected releases?	We plan to release an initial monolithic client (i.e. pre-MCOP - *not* providing the to-be-defined APIs) and the on-line testbed facility early in 2018. The majore target milestones for the MCOP-compatible SDK are M12 (June 2018), M18 (end 2018) and M24 (June 2019). Between these major miletones continous updates and bug fix releases will be released.
And the current state of the codebase	We plan to release an initial monolithic client (i.e. pre-MCOP - *not* providing the to-be-defined APIs) and the on-line testbed facility early in 2018. The majore target milestones for the MCOP-compatible SDK are M12 (June 2018), M18 (end 2018) and M24 (June 2019). Between these major miletones continous updates and bug fix releases will be released. Most of the pre-MCOP codebase was tested in the first MCPTT Plugtests event in June 2017.
Is there any plan for the MCOP to have the app developer community participate on development of open API's (both on the device and the app server)	The MCOP project is open to anybody's feedback and inputs. We want to enable a developer community. Online collaboration meachisms will be enabled as well. Please note that the server side is not in scope of MCOP.
MCOP: How can implementers try Alpha or Beta versions of the SDK and APIs? Can they contribute code too?	New versions of the API and SDK will be made available regularly. Online collaboration meachisms will be enabled as well.
Does the SDK exist today? IE if I join, can I get access to the SDK and start building an app?	We plan to release an initial monolithic client (i.e. pre-MCOP - *not* providing the to-be-defined APIs) and the on-line testbed facility early in 2018. We want to enable a developer community. Online collaboration meachisms will be enabled as well.
Is the codebase of the MCOP going to be "openly developed" e.g. a Github repository or to be developed behind closed doors by the MCOP partners and then released according to an internal timeplan?	New versions of the API and SDK will be made available regularly. Online collaboration meachisms will be enabled as well.

Is the MCOP API only applicable to the Device and not the Server?	Yes, only to the device
Are there plans to standardize compatibility of MCPTT App and device OS?	We will make contributions to the standardisation organisations through the MCOP partner companies.
Which standardization body will specify the MCOP API?	MCOP aims at remove entry barriers for developing standard based MCPTT applications. The scope of the project is not to identify standardization gaps or issues in the standards. These can be better done by e.g. the Plugtests events.
Regarding the MCOP project, is it the plan to have the test bed implemented and available at the NIST facility in the US?	Yes.
FirstNet has its own Device Certification program, how will the MCOP API become part of that FirstNet Device Certification program?	We will particulary address the FirstNet aplication developer program and other relevant frontrunning organisations and projects (e.g. the UK ESN project, the Korean Safe-Net, or the French RRF project) to ensure MCOP has a high impact.
Similar to the FirstNet question, has there been any discussion with the ESN programme in the UK on devices or the MCPTT solution that is being used?	Discussions are ongoing