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IANA Registration of New Session Initiation Protocol (SIP) Resource-Priority Namespace for Mission Critical Push To Talk service draft-holmberg-dispatch-mcptt-rp-namespace-00

Abstract

This document creates an additional Session Initiation Protocol (SIP) Resource-Priority namespace to meet the requirements of the 3GPP defined Mission Critical Push To Talk, and places this namespace in the IANA registry.

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

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This Internet-Draft will expire on August 12, 2016.

Table of Contents

1. Introduction

The third generation partnership project (3GPP) has defined a Mission Critical Push To Talk (MCPTT) over LTE service [TS.3GPP.22.179]. The MCPTT service supports an enhanced PTT service, suitable for mission critical scenarios, based upon 3GPP Evolved Packet System (EPS) services. The requirements for the MCPTT service defined within 3GPP can also form the basis for a non-mission critical Push To Talk (PTT) service.

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 is primarily targeting to provide a professional Push To Talk service to e.g., public safety, transport companies, utilities or industrial and nuclear plants. In addition to this a commercial PTT service for non-professional use (e.g., groups of people on holiday) may be delivered through an MCPTT system. Based on their operational model, the performance and MCPTT features in use vary per user organization, where functionality which is more mission critical specific (e.g., Ambient Listening and Imminent Peril Call) might not be available to commercial customers.

The MCPTT service provides its users with different priorities for the access to network resources in order to provide means to prioritize between calls when resources are scarce. These priorities take into account among other things the priority and role of the caller, the priority and type of the group, and the situation in which the call is made. According to [TS.3GPP.22.179] at least 8 and up to 30 priority levels are required.

High priority calls when there is danger of life for either the public safety worker or any other human need to be set up immediately and thus require preemption. Other calls may be less sensitive in call set-up time but have a high priority once established. For these calls a queueing mechanism is more appropriate.

This document creates additional Session Initiation Protocol (SIP) Resource-Priority namespaces to meet the requirements of the 3GPP defined Mission Critical Push To Talk, and places these namespaces in the IANA registry.

2. Conventions

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].

3. New SIP Resource-Priority Namespaces Created

3.1. Introduction

This document introduces the MCPTT namespaces mcptt1 and mcptt2, the name coming from the 3GPP defined Mission Critical Push To Talk service.

3.2. The MCPTT namespaces

The MCPTT namespaces use the priority levels listed below from lowest to highest priority.

mcpttN.1 (lowest priority)
mcpttN.2
mcpttN.3
mcpttN.4
mcpttN.5
mcpttN.6
mcpttN.7
mcpttN.8
mcpttN.9
mcpttN.10
mcpttN.11
mcpttN.12
mcpttN.13
mcpttN.14
mcpttN.15
mcpttN.16 (highest priority)

where N is 1 or 2.

Intended algorithm for mcptt1 is preemption, and for mcptt2 is queueing.

New Warning code: No.

New SIP response code: No.

4. Security Considerations

This document has the same Security Considerations as [RFC4412].

5. IANA Considerations

Abiding by the rules established within [RFC4412] and [RFC7134], this is an Informative RFC registering two new namespaces, their associated priority-values, and intended algorithms.

6. Acknowledgments

TBD

7. Change Log

[RFC EDITOR NOTE: Please remove this section when publishing]

Changes from draft-holmberg-dispatch-mcptt-namespace-00

o - Some change

8. Normative References

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, DOI 10.17487/RFC2119, March 1997, <http://www.rfc-editor.org/info/rfc2119>.

[RFC4412] Schulzrinne, H. and J. Polk, "Communications Resource Priority for the Session Initiation Protocol (SIP)", RFC 4412, DOI 10.17487/RFC4412, February 2006, <http://www.rfc-editor.org/info/rfc4412>.

[RFC7134] Rosen, B., "The Management Policy of the Resource Priority Header (RPH) Registry Changed to "IETF Review"", RFC 7134, DOI 10.17487/RFC7134, March 2014, <http://www.rfc-editor.org/info/rfc7134>.

[TS.3GPP.22.179]
3GPP, "3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Mission Critical Push To Talk (MCPTT) over LTE; Stage 1", 3GPP TS 22.179 13.2.0, June 2015.

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