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**Functional architecture and information flows to support**  
**Mission Critical Video (MCVideo);**  
**Stage 2**  
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# Foreword

This Technical Specification has been produced by the 3<sup>rd</sup> Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

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- x the first digit:
  - 1 presented to TSG for information;
  - 2 presented to TSG for approval;
  - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
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# 1 Scope

This document specifies the functional model, procedures and information flows needed for the mission critical video (MCVideo) service. Support for both MCVideo group streaming and MCVideo private streaming operating in on-network and off-network modes of operation is specified.

The corresponding service requirements are defined in 3GPP TS 22.280 [2], and 3GPP TS 22.281 [3].

The present document is applicable primarily to mission critical video service using E-UTRAN access based on the common functional architecture for mission critical services defined in 3GPP TS 23.280 [6] and the EPC architecture defined in 3GPP TS 23.401 [8].

The MCVideo service can be used for public safety applications and also for general commercial applications e.g. utility companies and railways.

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# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 22.280: "Mission Critical Common Requirements (MCCoRe); Stage 1".
- [3] 3GPP TS 22.281: "Mission Critical Video services over LTE".
- [4] 3GPP TS 23.002: "Network Architecture".
- [5] 3GPP TS 23.228: "IP Multimedia Subsystem (IMS); Stage 2".
- [6] 3GPP TS 23.280: "Common functional architecture to support mission critical services; Stage 2".
- [7] 3GPP TS 23.303: "Proximity-based services (ProSe); Stage 2".
- [8] 3GPP TS 23.401: "General Packet Radio Service (GPRS) enhancements for Evolved Universal Terrestrial Radio Access Network (E-UTRAN) access".
- [9] 3GPP TS 23.468: "Group Communication System Enablers for LTE (GCSE\_LTE); Stage 2".
- [10] 3GPP TS 33.179: "Security of Mission Critical Push-To-Talk (MCPTT)".
- [11] 3GPP TS 23.203: "Policy and charging control architecture".
- [12] 3GPP TS 36.331: "Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification".
- [13] 3GPP TS 29.468: "Group Communication System Enablers for LTE (GCSE\_LTE); MB2 reference point; Stage 3".
- [14] 3GPP TS 33.180: "Security of the mission critical service".

## 3 Definitions, symbols and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

**MCVideo client:** An instance of an MC service client that provides the client application function for the MCVideo service.

**MCVideo group:** An MC service group configured for MCVideo service.

**MCVideo group affiliation:** An MC service group affiliation for MCVideo.

**MCVideo group de-affiliation:** An MC service group de-affiliation for MCVideo.

**MCVideo group home system:** The mission critical system where the MCVideo group is defined.

**MCVideo group host server:** The MCVideo server within a mission critical system which provides centralised support for MCVideo services of an MCVideo group defined in a MCVideo group home system.

**MCVideo ID:** An instance of an MC service ID within the MCVideo service.

**MCVideo server:** An instance of an MC service server that provides the server application function for the MCVideo service.

**MCVideo service:** A video communication service supporting applications for mission critical organizations and mission critical applications for other businesses and organizations (e.g., utilities, railways) with strong security, high availability, reliability and priority handling.

**MCVideo system:** The collection of applications, services, and enabling capabilities required to provide Mission Critical video for a Mission Critical Organization.

**MCVideo UE:** An MC service UE that can be used to participate in MCVideo services.

**MCVideo user:** An MC service user who is authorized for MCVideo services via an MCVideo UE.

**Transmission control:** Video transmitting control mechanism in an MCVideo service that determines which participants have the authority to transmit video, and determines the onward downlink video transmission during an video call.

For the purposes of the present document, the following terms and definitions given in 3GPP TS 22.280 [2] apply:

**Mission Critical**  
**Mission Critical Applications**  
**Mission Critical Service**  
**Mission Critical Organization**  
**Mission Critical System**

For the purposes of the present document, the following terms and definitions given in 3GPP TS 22.281 [3] apply:

**Real Time**  
**Real Time Video**

For the purposes of the present document, the following terms and definitions given in 3GPP TS 23.280 [6] apply:

**MC service client**  
**MC service group**  
**MC service group affiliation**  
**MC service group de-affiliation**  
**MC service group home system**