

Standards and Software for Connected Media Experiences

5G-MAG Association
Activity recap
January 2026

Reach out for more information at info@5g-mag.com

5G-MAG, The Media Connectivity Association

Driving Standards and Software
for Connected Media Experiences

Media
streaming real-time
broadcast immersive...

Standards
scalability interop
trust sovereignty

Connectivity
5G networks APIs
computing devices...

Open-Source
adoption testing
collaboration efficiency



Industry Collaboration
under a neutral, hands-on non-for-profit industry association

Scope of the work – Member-driven activities

Driving together interoperability through open standards

Audiovisual content delivered over the internet and mobile networks

Content creation simplified by ubiquitous connectivity and global APIs

Immersive experiences powered by devices, computing capabilities,...



Driving Standards...

Transforming technology into practical solutions

Networks
Protocols
APIs
Devices
Apps

Streaming
RTC
Broadcast
Multicast
Computing

Live Media
XR Scenes
Volumetric
Avatars
Audio

Feasibility Studies
Architectures and Features
Profiles and Guidelines
Support towards Implementation
Feedback to Standards
Demos, Trials, PoCs, Deployments

Collaborating with the organizations that drive technology

5G-MAG is a **3GPP Market Representation Partner (MRP)**



Displayed logos illustrate a subset of organizations connected to our technology work.

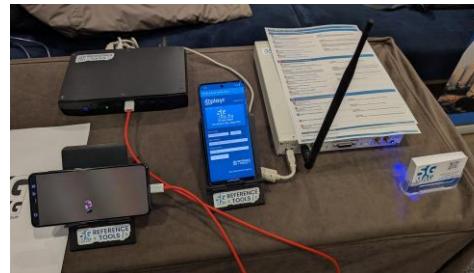
... and Developing Products

Transforming specifications into reference implementations

5G MAG REFERENCE TOOLS < / >

-  Standards validation, interop, early prototyping and testing
-  Ready-to-use code in production environments and as benchmark
-  Shared development effort avoids duplication across companies
-  Transparency, trust and collaborative enhancements

Open-source Toolbox for Connected Media Applications



Our Work in 3 steps

Pre-Standardization

- Collaboration scenarios & use cases
- Adequate architectures and Features
- Market-driven requirements and features

Supporting Standards Development

- Standards tracking and roadmaps
- Providing Feedback to Standards
- Implementation and deployment guidelines

Post-Standardization

- Open source developer community
- Validating Standards & Applications
- Prototyping, Trials and Ecosystem-drive

1

Discovery & Scouting

2

Selection & Evaluation

3

Development & Deployment



Our Structure

Member-driven

Bottom-up work and topics

Minimum bureaucracy

to concentrate on the actual work

Maximizing efficiency

by limited telcos & on-line work

Contribution-driven

to ensure relevance of the work

General Assembly

(All members)

Steering Group

(elected by members)

WG TECH

Members' Workgroup
Technology & Standards

WG DEV

Members' Workgroup
Development & Ecosystem-drive

WG PC

Members' Workgroup
Promotion & Communication

FORUM

Members' Forum
Collaborative Activity Hub

PUBLIC/EXTERNAL

Developer Community
5G-MAG Reference Tools



Technology Projects



[More information at 5g-mag.com](http://5g-mag.com) and hub.5g-mag.com

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hub.5g-mag.com/Standards
hub.5g-mag.com/Getting-Started



5G-MAG's Technology Projects

Member-driven & Contribution-driven Topics and Projects

 5G Media Streaming Architecture

 UE Data Collection, Reporting & Event Exposure

 5G Broadcast: TV, Radio and Emergency Alerts

 5G Multicast Broadcast Services

 Real-Time Media Communication

 Network Capability Exposure through APIs

 Non-Terrestrial Networks

 Non-Public Networks

 Time Sensitive Communication

 XR Media with MPEG-I Scene Description

 Volumetric Video Experiences with MPEG V3C

 Beyond 2D Video Experiences

 AI/ML in Mobile Media Services

 Multimedia Content Delivery Protocols

 DVB-I Services over 5G Systems

 Towards 6G Media

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hub.5g-mag.com/Getting-Started



5G-MAG's Technology Projects

Member-driven & Contribution-driven Top

 5G Media Streaming Architecture

 UE Data Collection, Reporting & Event Exposure

 5G Broadcast: TV, Radio and Emergency Alerts

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 Volumetric

 Beyond 2D v

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5G-MAG's Technology Projects

Member-driven
Technology Projects

Connected Production



-  5G Media Streaming Architectures
-  5G Media with MPEG-I Scene Description
-  UE Data Collection, Reporting and Metrics
-  3D and VR Immersive Video Experiences with MPEG V3C
-  5G Broadcast: TV, Radio and 2D Video Experiences
-  5G Multicast Broadcast Services in Mobile Media Services
-  Real-Time Media Communication
-  Multimedia Content Delivery Protocols
-  Network Capability Exposure through APIs
-  DVB-I Services over 5G Systems
-  Non-Terrestrial Networks
-  Towards 6G Media
-  Non-Public Networks
-  Time Sensitive Communication

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5G-MAG's Technology Projects

Immersive Media



Contribution-driven Topics and Projects



XR Media with MPEG-I Scene Description

Volumetric Video Experiences with MPEG V3C

Beyond 2D Video Experiences

AI/ML in Mobile Media Services

Multimedia Content Delivery Protocols

DVB-I Services over 5G Systems

Towards 6G Media

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All what we do

Topics driven by members

Execution supported by 5G-MAG resources

From specifications into software implementation

Through open-source development, projects, testing and trials



GITHUB

hub.5g-mag.com

- Access to all repositories: github.com/5G-MAG/
- 5G-MAG EXECUTION PLANS: github.com/orgs/5G-MAG/projects/44
- 5G-MAG REFERENCE TOOLS ROADMAPS: github.com/orgs/5G-MAG/projects/48



GITHUB

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More information at 5g-mag.com/work

All what we do

All the outcomes



GITHUB

hub.5g-mag.com/Tech

- Technology analysis, discussion and documentation
- Reports and Explainers



GITHUB

hub.5g-mag.com/Standards

- Requirements towards SDOs: hub.5g-mag.com/Standards/pages/requirements.html
- Liaison Statement and Inputs to SDOs: hub.5g-mag.com/Standards/pages/lis.html
- Feedback to Specifications: hub.5g-mag.com/Standards/pages/feedback.html
- Work Items, Specifications and Technical Reports: hub.5g-mag.com/Standards/pages/standards.html
- Issues: github.com/5G-MAG/Standards/issues
- Project board: github.com/5G-MAG/Standards/projects
- Discussions: github.com/5G-MAG/Standards/discussions



GITHUB

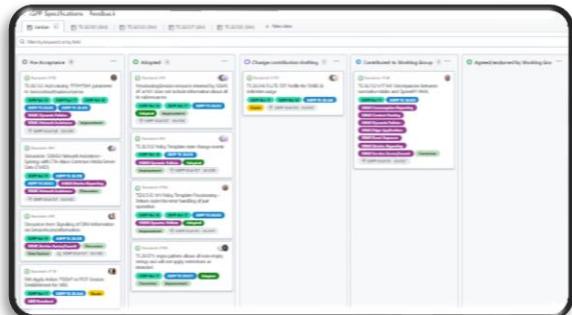
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- Access to 5G-MAG Reference Tools (information, repositories, tutorials,...)



More information at 5g-mag.com/work

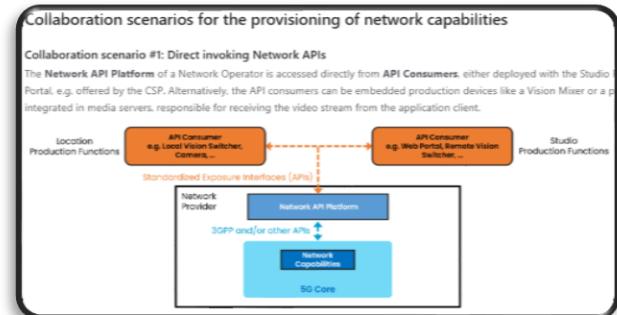
Examples



Feedback to Standards

WORKSHOP
3GPP Release 19, ready for implementation
Advanced Media Delivery
An Introduction
By Thomas Stockhammer (Qualcomm)
Support from Jason Cloud (Dolby), Frédéric Gabin (Dolby) and Richard Bradbury (BBC)
Watch on [YouTube](#)

VideoTech



Technical Analysis



Specifications & Profiles



Software and Demos

Workshop on
Media Energy Consumption
Measurement and Exposure

3GPP A GLOBAL INITIATIVE Greening of Streaming The Media Connectivity Association

Workshop co-organized by 3GPP SA4, GoS and 5G-MAG

Join us on-line on 19.03.2026 at 15:00 CET

Workshops



Join us and support the activities!

How does 5G-MAG support the industry and you?

← 5G-MAG supporting the industry

Driving the development of **open standards** for connected media services

Contributing industry's feedback to SDOs in a coherent way

Supporting open-source software implementations towards products

Accelerating adoption of global **connectivity solutions** for media

Fostering tech interoperability and trust

→ 5G-MAG supporting you

Understanding standards, specifications and **technologies**

Creating collaboration opportunities with partners

Contributing consensus-driven requirements to SDOs

Scouting opportunities for projects and funding aligned to 5G-MAG's work

Promoting your work at events

Who is supporting our work?



ANIXENET

ASTRUM
MOBILE

ATEME
Capitivate your audience

BBC

Belgian Tower Company

BIG BLUE MARBLE
ORF

broadcast networks europe

Dolby



EBU

OPERATING EUROVISION AND EURORADIO

EITOWERS

ERICSSON

esa

eutelsat

france.tv

Fraunhofer
FOKUS

HAIVISION



BTS
IEEE Broadcast
Technology Society

interdigital.

kronehit

MAINDATA

mbi

MCC

Media
Broadcast

NABA



NOKIA

npo

ONE
Media
Technologies

PHILIPS

plus

PROGIRA

Qualcomm

Rai



rtve

SENNHEISER

ses

SMART
MOBILE
LABS

swisscom

SWISS
TXT

SWR

TemX
COMMUNICATIONS



Universidad
del País Vasco
Euskal Herriko
Unibertsitatea

UNIVERSITAT
POLITÈCNICA
DE VALÈNCIA

XGN

Yotta
Media



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Who is supporting our work?

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Membership Fee Category LARGE	Annual Revenues › €1 billion	Annual Membership Fee € 15.000
Membership Fee Category MEDIUM	Annual Revenues €100 million - €1 billion	Annual Membership Fee € 10.000
Membership Fee Category SMALL	Annual Revenues €5 million - €100 million	Annual Membership Fee € 5.000
Membership Fee Category MICRO	Annual Revenues < €5 million	Annual Membership Fee € 2.000

The **Micro** category also includes: Universities, Regulators, Public research bodies, Institutions, NGOs, and non-for-profit organizations

Fostering industry collaboration

Workshops

www.5g-mag.com/workshops

Open-Source Media Application Reference Tools (osmart)

<https://osmart-community.github.io/>



Open-Source Core Applications RAN (oscar)

www.5g-mag.com/oscar



Part of the Metaverse Standards Register

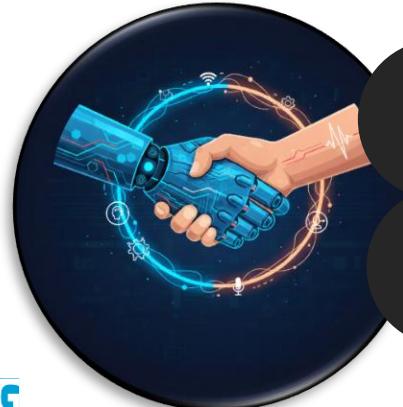
<https://register.metaverse-standards.org/pogs>



Promoting Technology and Members' Efforts



Follow The Handshake by 5G-MAG



The Handshake

by **5G MAG** The Media Connectivity Association

Now available on
 Spotify®



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Jordi J. Gimenez – Technology
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In more detail...



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5G Media Streaming Architecture



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5G Media Streaming Architecture

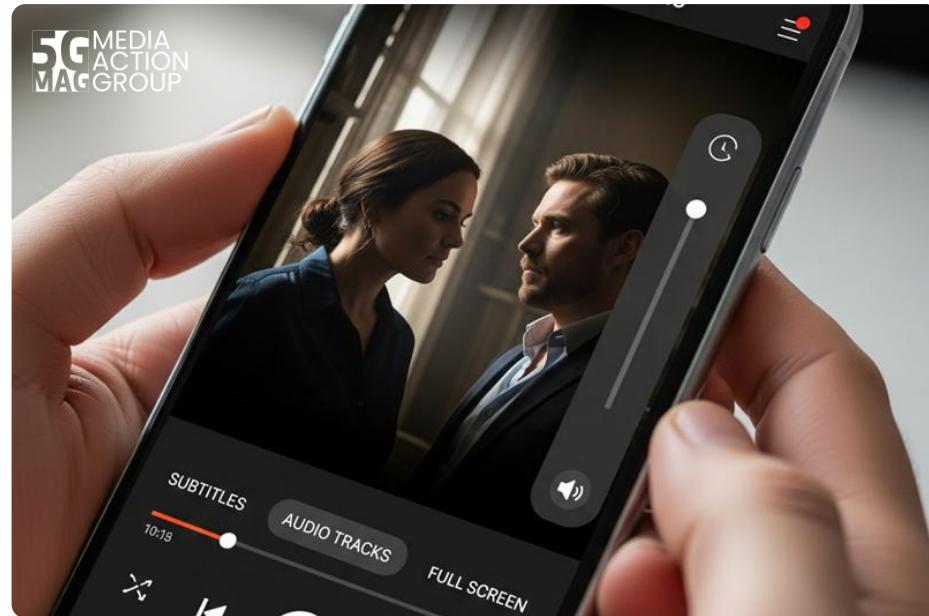
Overview of the work, outcomes, Execution Plan and Technical Resources

What is this project about?

Improving **quality of experience (QoE)** for media **streaming** by applications sharing knowledge with the network.

Helping the application deliver a **better streaming experience** by:

- Content Hosting and Preparation
- Invoking Dynamic QoS Policies
- Network Assistance (Bit rate recommendation, delivery boost)
- Consumption reporting (feedback reports on consumed content)
- QoE Metrics reporting (client uploads of metrics reports)



WHERE TO LOOK AT?

Technical Resources Standards

Reference Tools available:

- [Project: 5G Media Streaming Architecture](#)
- [Project: 5G Core Service Consumers](#)



UE Data Collection, Reporting & Event Exposure



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UE Data Collection, Reporting and Event Exposure

Overview of the work, outcomes, Execution Plan and Technical Resources

What is this project about?

The **Network Data Analytics Function (NWDAF)** is a key component of the 5G System designed to analyze data collected from various Network Functions and UEs.

- This enables a **closed-loop system** where consumers can use the analyzed data to modify and **optimize the 5G System's configuration in real-time**.
 - An extended architecture introduces a **Data Collection AF** that **receives data from UEs and Application Servers**.
 - This framework also incorporates Data Access Profiles with aggregation functions to ensure data protection, and allows for third-party Application Service Providers (ASPs) to consume these events for their own application optimization.



WHERE TO LOOK AT?

**Check the Execution Plan
All the Technical Resources
Information on Standards
Reference Tools available:**

- **Project: UE data collection, reporting and event exposure**



5G Broadcast Hybrid Services



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5G Broadcast

Overview of the work, outcomes, Execution Plan and Technical Resources

What is this project about?

Ability to **deliver content** to 3GPP-based devices **without** the need of a **SIM-card nor uplink** capabilities and by using **broadcast and/or cellular infrastructure**.

- Integration of broadcast reception into **3GPP-based user equipment**
- Delivery of **TV and Radio streaming services** over broadcast
- Integration within **OTT applications** and **smart devices**
- Broadcasting of **emergency alerts** alongside media services



WHERE TO LOOK AT?

Check the [Execution Plan](#)
All the [Technical Resources](#)
Information on [Standards](#)
Reference Tools available:

- [Project: 5G Broadcast Hybrid Services](#)
- [Project: Emergency Alerts over 5G Broadcast](#)



5G Multicast Broadcast Services



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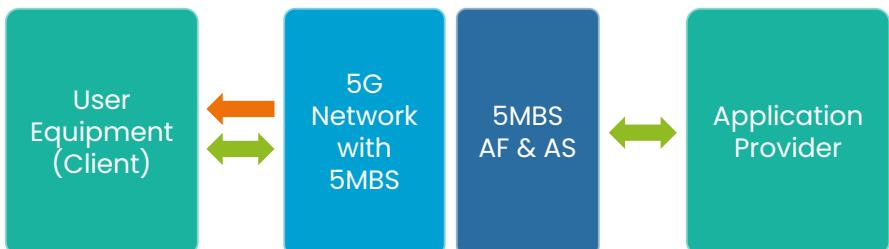
5G Multicast Broadcast Services

Overview of the work, outcomes, Execution Plan and Technical Resources

What is this project about?

Ability to integrate **multicast** and **broadcast** capabilities within the **5G network** for content delivery at scale.

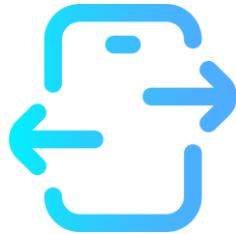
- Integration of one-to-many and broadcast capabilities into **3GPP-based** user equipment
- Delivery of content to a determined **group of users over multicast** with HARQ and resilience mechanisms similar to those applied in unicast
- Delivery of content to an arbitrarily **large amount of users over broadcast** within a coverage area



WHERE TO LOOK AT?

[Check the Execution Plan](#)
[All the Technical Resources](#)
[Information on Standards](#)
[Reference Tools available:](#)

- [Project: 5G Multicast Broadcast Services](#)



Real-Time Media Communication



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Real-Time Media Communication

Overview of the work, outcomes, Execution Plan and Technical Resources

What is this project about?

Architecture for **real-time media communication** within the 5G System (5GS) supporting services from both Mobile Network Operators (MNOs) and third parties.

- Enabling **services** like video calls, online gaming, and augmented reality (AR) **over mobile networks**.
- Support for collaboration scenarios including those for **augmented reality (AR)** services with specific functionalities such as **split-rendering** or **spatial computing** within a 5G System.



WHERE TO LOOK AT?

[Check the Execution Plan](#)
[All the Technical Resources](#)
[Information on Standards](#)
[Reference Tools Project](#)



Network Capability Exposure through APIs



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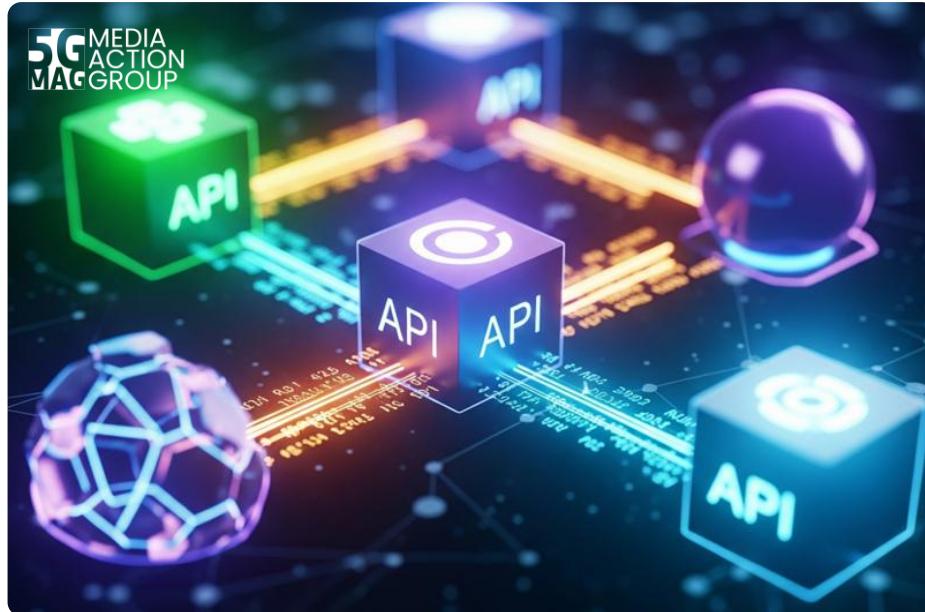
API Network Capability Exposure through APIs

Overview of the work, outcomes, Execution Plan and Technical Resources

What is this project about?

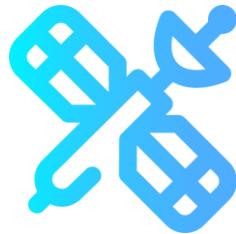
Standardized access to network capabilities offered by telecom operators.

- Developers who wanted to integrate network functionalities had to create custom integrations for each individual mobile network operator. This made it difficult and time-consuming to build applications that could work across different countries and networks.
- As an example of new initiatives aiming at **reducing fragmentation**, CAMARA APIs provide a unified, "write-once, run-anywhere" approach which allows developers to write code that works with any network operator that implements the CAMARA standard. This **simplifies development, accelerates innovation**, and makes it easier to **create globally portable applications**.



WHERE TO LOOK AT?

[Check the Execution Plan](#)
[All the Technical Resources](#)
Reference Tools Project



Non-Terrestrial Networks



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Non-Terrestrial Networks

Overview of the work, outcomes, Execution Plan and Technical Resources

What is this project about?

Use of emerging **satellite connectivity platforms** to access media applications.

- **Global Media Delivery:** NTNs are well-suited for broadcasting and multicasting content to a large, geographically dispersed audience
- **Media Streaming in Remote Locations:** LEO constellations can provide the necessary bandwidth and low latency to support mobile broadband services for users on planes, ships, or in remote areas. This enables seamless video calls and streaming
- **Backhaul for Media Services:** NTNs can also serve as backhaul, connecting remote "islands" of terrestrial 5G networks to the core network.



WHERE TO LOOK AT?

[Check the Execution Plan](#)
[All the Technical Resources](#)
[Information on Standards](#)
[Reference Tools Project](#)



Non-Public Networks



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Non-Public Networks

Overview of the work, outcomes, Execution Plan and Technical Resources

What is this project about?

A powerful solution for the demanding requirements of media production, where reliable, low-latency, and secure connectivity is crucial.

- Guaranteed **Quality of Service (QoS)** through access to dedicated network resources for specific **media flows** (e.g. live video feeds, return video, and control signals).
- An NPN provides a **secure, isolated network** with only authorized devices able to connect.
- Deployable in **fixed locations** or as **nomadic** networks.
- Deployable as completely **isolated networks** or with the **support of a public mobile network operator**, leveraging the operator's existing infrastructure while maintaining data isolation and custom QoS.



WHERE TO LOOK AT?

[Check the Execution Plan](#)
[All the Technical Resources](#)
[Information on Standards](#)
[Reference Tools Project](#)



Time Sensitive Communication



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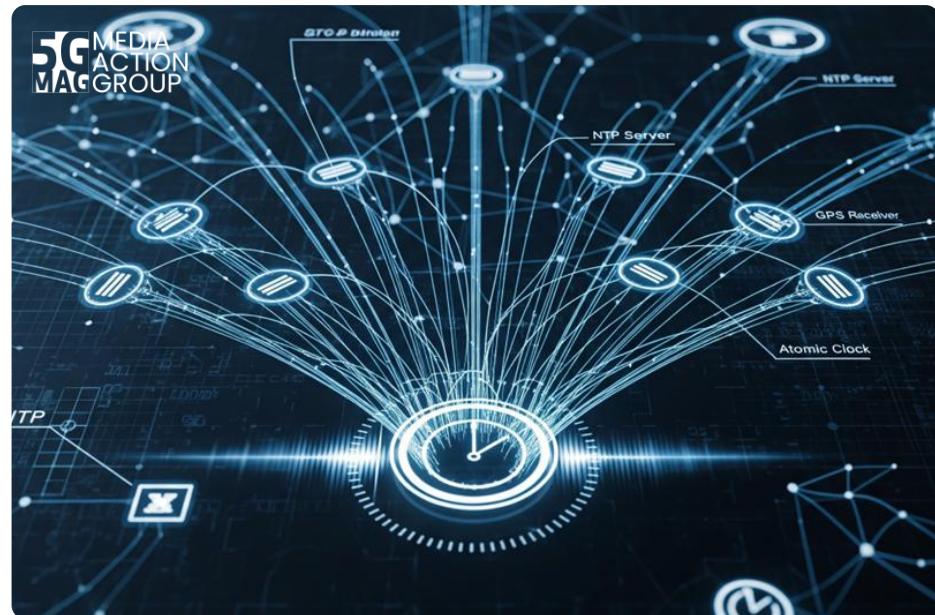
Time Sensitive Communication

Overview of the work, outcomes, Execution Plan and Technical Resources

What is this project about?

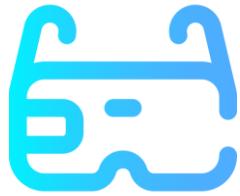
Time-Sensitive Communication (TSC) in 3GPP is a key enabler applications that require deterministic and reliable communication with bounded latency.

- Time Synchronization: The 5G system is designed to be a "**time-aware system**" that can distribute timing information with high accuracy.
- Ability to use the **5G reference clock** to synchronize devices connected to the network.
- Ability to transport **timing information** and **align devices** connected to different network domains.



Check the [Execution Plan](#)
All the [Technical Resources](#)
Information on [Standards](#)
Reference Tools Project

WHERE TO LOOK AT?



XR Media with MPEG-I Scene Description



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XR Media with MPEG-I Scene Description

Overview of the work, outcomes, Execution Plan and Technical Resources

What is this project about?

MPEG-I Scene Description (MPEG-I SD) is a standard for immersive media experiences which defines the **structure and composition of a 3D scene**, providing a framework for how different media assets are arranged, animated, and rendered.

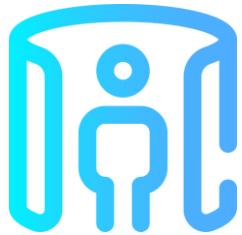
- Based on a **scene graph**, a hierarchical data structure organizes all the elements of a 3D scene. This includes 2D and 3D objects, lights, cameras, and their relationships.
- Built upon the **glTF standard**, with **extensions to handle real-time and dynamic media**, allowing developers to reference external media streams, such as live video feeds, spatial audio, and dynamically changing mesh data, and integrate them seamlessly into the 3D scene.



WHERE TO LOOK AT?

[Check the Execution Plan](#)
[All the Technical Resources](#)
[Information on Standards](#)
[Reference Tools available:](#)

- [Project: XR Media with MPEG-I Scene Description](#)



Volumetric Video Experiences with MPEG V3C



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Volumetric Video Experiences with MPEG V3C

Overview of the work, outcomes, Execution Plan and Technical Resources

What is this project about?

Creation, encoding, rendering and presentation of Volumetric Video assets

- MPEG V3C (Visual Volumetric Video-based Coding) is a standard for **compressing and streaming volumetric video content**, which allows viewers to navigate a 3D scene with six degrees of freedom (6DoF).
- **Video-based Point Cloud Compression (V-PCC)**: This part of the standard efficiently compresses 3D point clouds by projecting them onto 2D views, which are then compressed using existing video codecs.
- **MPEG Immersive Video (MIV)**: This component handles the compression of immersive video captured by multiple cameras, enabling the creation of a seamless, navigable 3D scene.



WHERE TO LOOK AT?

[Check the Execution Plan](#)
[All the Technical Resources](#)
[Information on Standards](#)

Reference Tools available:

- [Project: V3C Immersive Platform](#)



Beyond 2D Video Experiences



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Beyond 2D Video Experiences

Overview of the work, outcomes, Execution Plan and Technical Resources

What is this project about?

Advanced capture and display technologies is driving the evolution of video services **from traditional 2D to beyond 2D**.

- Format and Codec Diversity: The wide array of **beyond 2D video formats** (e.g., Multi-view, Point Clouds, Dynamic Mesh) **and codecs** (e.g., MPEG, Khronos, non-standardized solutions) creates **interoperability** issues.
- Network and Device Limitations: Beyond 2D video requires transmitting and processing **massive amounts of data**, which can strain both network bandwidth and the computational power of user equipment (UE).
- Service Extension and Feature Support: To fully leverage beyond 2D video, existing **3GPP services need to be extended** to support features like 2D-to-beyond 2D conversion. Additionally, communication and networking solutions must be optimized to meet the strict latency and bitrate requirements of these new services.



WHERE TO LOOK AT?

[Check the Execution Plan](#)
[All the Technical Resources](#)
[Information on Standards](#)
[Reference Tools available:](#)

- [Project: Beyond 2D Evaluation Framework](#)



AI/ML

In Mobile Media Services



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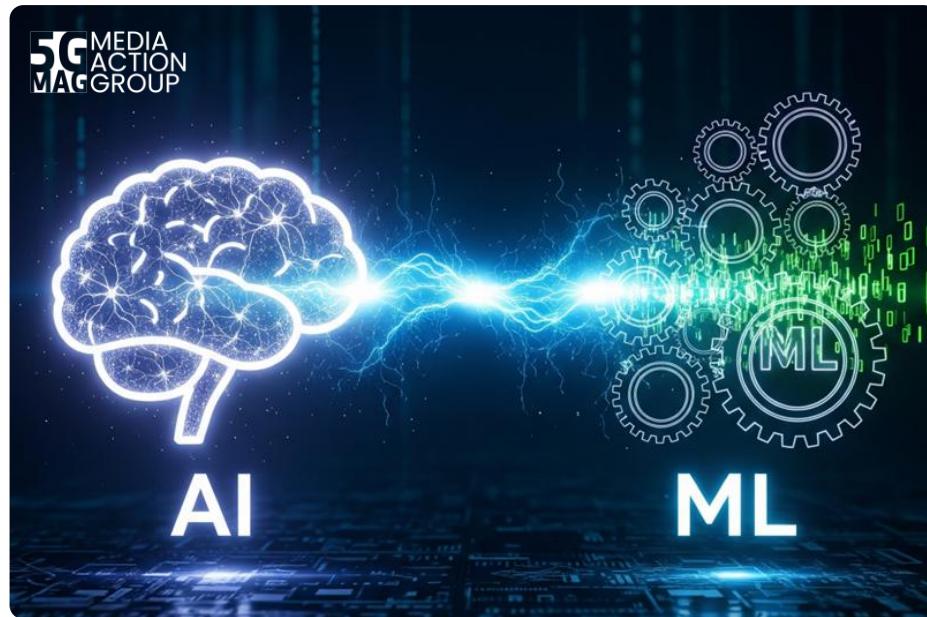
Artificial Intelligence & Machine Learning in 5G Media Services

Overview of the work, outcomes, Execution Plan and Technical Resources

What is this project about?

The 3GPP FS_AI4Media (Feasibility Study on Artificial Intelligence and Machine Learning for Media) in 3GPP explores how **AI/ML can be integrated into 5G media services**. The study identifies three core operations that require the exchange of AI/ML and media data over a 5G system:

- **AI/ML Model/Data Distribution:** This involves sending AI/ML models from a network endpoint to a user device (UE) as needed.
- **AI/ML Operation Splitting:** This involves dividing an AI/ML task between a UE and a network endpoint
- **Distributed/Federated Learning:** This is a collaborative process where multiple UEs train a single global model



WHERE TO LOOK AT?

Check the [Execution Plan](#)
All the [Technical Resources](#)
Information on [Standards](#)

Reference Tools available:

- [Project: AI & ML Evaluation Framework](#)



Multimedia Content Delivery Protocols





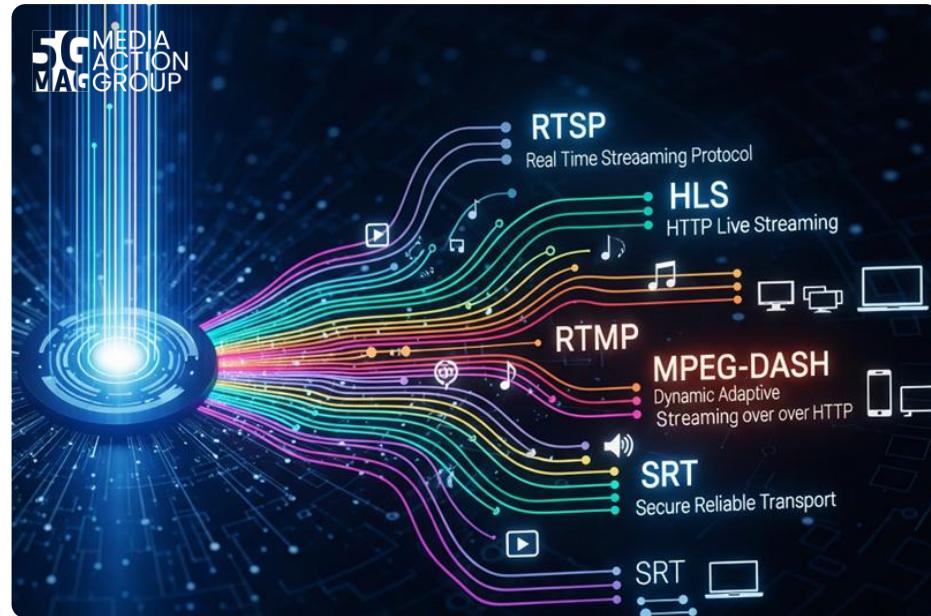
Multimedia Content Delivery Protocols

Overview of the work, outcomes, Execution Plan and Technical Resources

What is this project about?

Support the implementation of unidirectional media delivery with a special attention to:

- FLUTE (File Delivery over Unidirectional Transport)
- ROUTE (Real-time Object delivery over Unidirectional Transport)



WHERE TO LOOK AT?

Check the [Execution Plan](#)
All the [Technical Resources](#)
Information on [Standards](#)
Reference Tools available:
▪ [Project: Multimedia Content Delivery Protocols](#)



DVB-I Services over 5G Systems



What is this project about?

DVB-I enables broadcasters to deliver content across various networks, including 5G. Viewers can access a seamless, **unified Electronic Program Guide (EPG)** that **integrates both broadcast and IP-delivered channels**. The combination of DVB-I with 5G Systems enables scalability and hybrid delivery capabilities

- The standards supports the delivery of **DVB-I Services over 5G Media Streaming and LTE-based 5G Broadcast**
- This integration is a result of collaboration between the DVB Project and 5G-MAG



WHERE TO LOOK AT?

[Check the Execution Plan](#)
[All the Technical Resources](#)
[Information on Standards](#)
[Reference Tools available:](#)

- [Project: DVB-I Services over 5G Systems](#)



REFERENCE TOOLS



Software Projects



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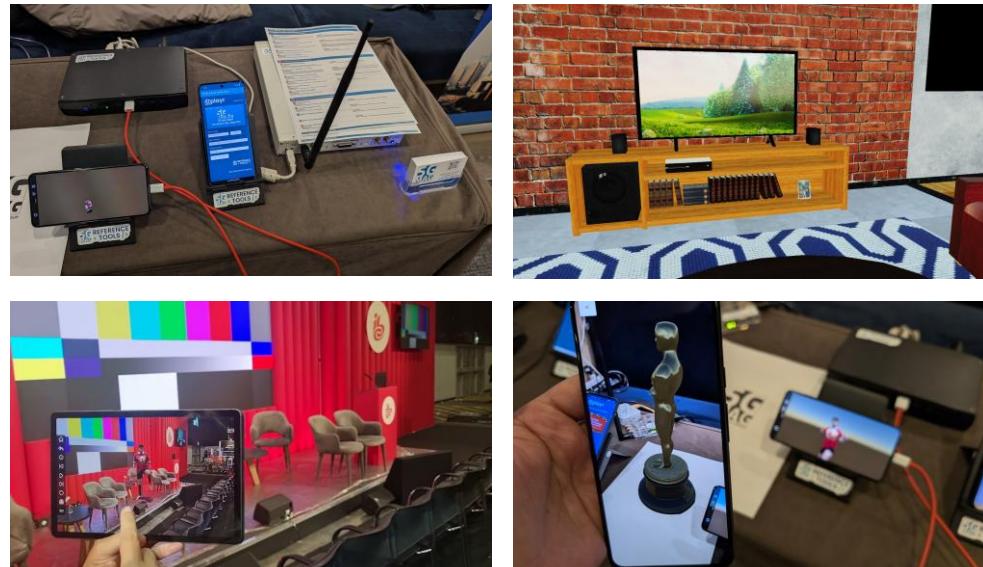
Public Software Development Community

Transforming specifications into reference implementations

5G MAG REFERENCE TOOLS < / >

-  Standards validation, interop, early prototyping and testing
-  Ready-to-use code in production environments and as benchmark
-  Shared development effort avoids duplication across companies
-  Transparency, trust and collaborative enhancements

Open-source Toolbox for Connected Media Applications



5G-MAG Reference Tools' Projects



Projects leading to open-source tools



5G Media Streaming Architecture



UE Data Collection, Reporting & Event Exposure



5G Broadcast: TV, Radio and Emergency Alerts



5G Multicast Broadcast Services



Real-Time Media Communication



Network Capability Exposure through APIs



Non-Terrestrial Networks



Non-Public Networks



Time Sensitive Communication

XR Media with MPEG-I Scene Description

Volumetric Video Experiences with MPEG V3C

Beyond 2D Video Experiences

AI/ML in Mobile Media Services

Multimedia Content Delivery Protocols

DVB-I Services over 5G Systems

Towards 6G Media

hub.5g-mag.com/Tech
hub.5g-mag.com/Standards
hub.5g-mag.com/Getting-Started



More information at developer.5g-mag.com and hub.5g-mag.com



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GITHUB

<https://github.com/5G-MAG>

Software Development is handled in GitHub. Find there all the repositories



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WG DEV: Every Friday for 5G-MAG members

Public Friday Calls

Last Friday of the month from 13:00 to 14:30 CET for everybody
5g-mag.com/community#calendar



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5G-MAG Reference Tools – Roadmaps

5G-MAG Reference Tools - Roadmaps

All 5G Media Streaming 5GC Components UE Data Collection 5G Broadcast Emergency Alerts 5GBC Multicast Broadcast Service Multimedia Content Delivery XR Media with MPEG-I V3C Immersive Platform

label:"Project: 5G Media Streaming"

Candidates 1 ...
This is a candidate for future work.
Getting-Started #126
Advanced Media Delivery (AMD) - In-band reporting of CMCD information

Under Study 1 ...
This is under study.
Getting-Started #137
Cloud Deployment support

Under Development 4 ...
This is actively being worked on.
Getting-Started #132
Dynamic Policies (M1 Policy Templates API + M5 Dynamic Policies API)

Completed 0 ...
This has been completed.

Completed + Tested 6 ...
Getting-Started #134 Consumption collection and reporting
Getting-Started #130 Implementation of M1d Provisioning APIs
Getting-Started #133 QoE metrics collection and reporting
Getting-Started #129 Implementation of AF to AS RESTful OpenAPI (M3)
Getting-Started #128 Support for basic media session handling (Application Function + Media Session Handler)
Getting-Started #127 Support for basic media stream handling (Application Server + Media Stream Handler)

All the contributions, on-going developments and opportunities for contributors

+ Add item + Add item + Add item + Add item + Add item

5G-MAG Reference Tools – Standards Feedback

<https://github.com/5G-MAG/Standards/projects>



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Tutorials and Developer Xchange

<p>Multimedia Content Delivery Protocols</p> <p>GPAC Flute interop with 5G-MAG Reference Tools</p> <p>Sohail Larbi Motion Spell</p> <p>BBC Dolby Fraunhofer FOKUS Qualcomm</p> <p>5G Media Streaming Architecture</p> <p>5G Media Streaming in the BBC standalone testbed</p> <p>Richard Bradbury, David Waring, Dev Audsin and John Elliott BBC R&D</p> <p>BBC Dolby Fraunhofer FOKUS Qualcomm</p> <p>5G Broadcast TV and Radio Hybrid Services</p> <p>Unicast/Broadcast Seamless Switching</p> <p>Klaus Kühnhammer TEAM-UPV Daniel Silhavy Fraunhofer FOKUS</p> <p>Bitstream Fraunhofer FOKUS Ors group Qualcomm UNIVERSITATIS POLYTECHNICAE VALENCIA</p> <p>XR Media with MPEG-I Scene Description</p> <p>XR Unity Player in 5G-MAG Reference Tools</p> <p>Imed Bouazizi Qualcomm</p> <p>Qualcomm Interdigital</p>	<p>5G Reference MAC < TOOLS /></p> <p>i Tutorial</p> <p>THANK YOU!</p>	<p>5G Reference MAC < TOOLS /></p> <p>5G Media Streaming in the BBC standalone testbed</p> <p>i Tutorial</p> <p>THANK YOU!</p>	<p>5G Reference MAC < TOOLS /></p> <p>i Tutorial</p> <p>THANK YOU!</p>	<p>5G Reference MAC < TOOLS /></p> <p>i Tutorial</p> <p>THANK YOU!</p>
<p>5G Media Streaming Architecture</p> <p>5GMS with Application Provider Portal</p> <p>Vuk Stojkovic Fraunhofer FOKUS</p> <p>BBC Dolby Fraunhofer FOKUS Qualcomm</p> <p>UE Data Collection, Reporting & Event Exposure</p> <p>Docker Setup with Insomnia REST Client</p> <p>Daniel Silhavy Fraunhofer FOKUS</p> <p>BBC Fraunhofer FOKUS</p>	<p>5G Reference MAC < TOOLS /></p> <p>i Tutorial</p> <p>THANK YOU!</p>	<p>5GMS with Application Provider Portal</p> <p>i Tutorial</p> <p>THANK YOU!</p>	<p>UE Data Collection, Reporting & Event Exposure</p> <p>Docker Setup with Insomnia REST Client</p> <p>i Tutorial</p> <p>THANK YOU!</p>	<p>5G Reference MAC < TOOLS /></p> <p>i Tutorial</p> <p>THANK YOU!</p>
<p>5G Multicast Broadcast Services</p> <p>Initial support of 5MBS core network functions</p> <p>Borja Iñesta Hernández TEAM - UPV</p> <p>BBC UNIVERSITATIS POLYTECHNICAE VALENCIA</p> <p>V3C Immersive Platform</p> <p>Unity Player for Android with DASH Streaming Server</p> <p>Interdigital PHILIPS</p>	<p>5G Reference MAC < TOOLS /></p> <p>i Tutorial</p> <p>THANK YOU!</p>	<p>V3C Immersive Platform</p> <p>Unity Player for Android with DASH Streaming Server</p> <p>i Tutorial</p> <p>THANK YOU!</p>	<p>V3C Immersive Platform</p> <p>Unity Player for Android with DASH Streaming Server</p> <p>i Tutorial</p> <p>THANK YOU!</p>	<p>5G Reference MAC < TOOLS /></p> <p>i Tutorial</p> <p>THANK YOU!</p>

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