MediaCast Mobile

4G/5G Multicast Delivery Server

ENENSYS' software solution designed to support the eMBMS delivery of both live and on-demand file contents over LTE network

ENENSYS MediaCast Mobile is an efficient and robust Long-Term Evolution (LTE) broadcast and 5G delivery server. It enables service providers to deliver high-quality content to their subscribers simultaneously, with consistent Quality-of-Service (QoS), while reducing their network bandwidth costs.

A controller for the content delivery management

Content delivery is managed through one smart controller that centralises content consumption intelligence in order to dynamically determine the right delivery strategy. It comes with pre-built broadcast service templates, such as streaming HD video, transferring large data files or software updates, with several customisation options available. These easy-to-use templates are designed to reduce the time it takes to set-up LTE Broadcast services. ENENSYS provides additional professional services to build customised templates to fit your needs.

FEC, File Repair and Reception Reporting

MediaCast Mobile offers powerful FEC, File Repair, and Reception Reporting capabilities to keep tabs on file transmission quality and ensure consistent QoS. The FEC transmits redundant bytes up front to correct potential errors without retransmission. File Repair enables individual devices to acquire missing chunks of data. Transmitted content is stored to automatically respond to lost-data requests. The Reception Reporting function stores QoE information that can eventually be processed for service improvements.

3GPP Compliant

MediaCast Mobile is fully compliant with 3rd Generation Partnership Project standards (3GPP). Active 3GPP members for years, our team chooses and implements the most relevant features from the 3GPP standards, so our clients can stay ahead of the competition.

Advanced Workflow

MediaCast Mobile offers several convenient features to manage your LTE Broadcast services. Its powerful role-based security access control supports multi-level roles to increase security and simplify the provisioning process. This feature is flexible enough to easily align it with any organisation's responsibility structure. The advanced approval workflow allows better control of LTE broadcasting operations.

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Applications

- LTE-Broadcast
- OTT Linear TV
- Filecasting
- Mission Critical Services over LTE
- 5G delivery

Other benefits

- Suitable for large scale rollouts (countrywide network) as well as small LTE-Broadcast deployments
- BM-SC (Broadcast-Multicast Service Center): Core element of the LTE Broadcast, responsible for service creation, ingesting content coming from live encoders and/or CDN, formatting it and broadcasting it down to eNodeBs
- MBMS-Gateway, integrated into our BM-SC
- MCE (Multi-Cell/Multicast Coordination Entity)
- LTE Broadcast part of the MME – Functional entity for non eMBMS ready MME

It also includes a Controller for:

- LTE-Broadcast / OTT / Service provisioning
- Service scheduling / planning, Geo-Planning
- Multicast-Operation-on-Demand (MooD)
- Multiple BMSC/Multicast server management
- Target network capacity control, and scheduling collision control
- Supports DASH/HLS/CMAF LL service definition
- Provides Service template mechanisms to simplify operational use

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Technical specifications

INTERFACES

Control

1x Network Interface to access GUI/SNMP/REST API

Content Provisioning

1x Network Interface to manage all Linear RTP, HLS, DASH, CMAF Low Latency, PSLTE (MB2-U), and on-demand File contents. Transparent mode is available through xMB-U

Data Plane

1x Network Interface for all output streams - M1, SGi-mb

Control Plane

1x Network Interface for all control plane interfaces - Sm, SG-mb, M2, M3, MB2-C (PSLTE), xMB-C (Transparent mode)

FEATURING

3GPP MBMS

eMBMS support over LTE
3GPP Rel14 support
3GPP Functions supported: BM-SC, MBMS-GW, MME-B, MCE
Control and User Plane Separation of EPC nodes (CUPS)

3GPP Mission Critical

Group Communication Services: MCPTT, MCData, MCVideo, MCx
Multiple GCS-AS support
MCPTT Service Management with embedded Controller

OTT

Multicast Controller Integration
Seamless integration with any CDN
Multiple Origin Server support

Multicast Service Controller

Service Creation
Service Scheduling
Service Planning and geo-planning

Service Delivery

Streaming: RTP, HLS, DASH (template or timeline), CMAF Low Latency
On-demand File (single delivery, carrousel, auto-update, scheduled repetitions)
Service Announcement and In-band updates
FLUTE/FEC: no-code, Raptor10, RS-LDPC, FEC-Frame

Associated Delivery Procedures

Bootstrap
File Repair
Reception Report / QoE
Multicast operation on Demand (Mood)
Consumption Report

Monitoring and Supervision

SNMP v2/3
HTML5 Web based GUI
Alarms configuration & monitoring, performance counters
Inventory and configuration management
Backup & restore
REST API

System / Architecture

Virtualized or bare-metal server
Scalable system delivery to support high number of eMBMS bearers
Active/hot-standby redundancy on Control Plane
N+P redundancy on User Plane
Geo-Redundancy
IPv4 / IPv6 support for all interfaces

PHYSICAL

Installation

Virtual Machine or bare-metal server

Processing

8 vCPU - 16 CPU

RAM

16GB

HDD

80GB

MediaCast Mobile

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Ordering codes

MediaCast Mobile

eMBMS Server for delivering media over LTE-Broadcast

Ordering options

MediaCastMobile-ACCESS

Video delivery over LTE Broadcast / Management of up to 10 streams / Local Redundancy / SNMP support

MediaCastMobile-ULTIMATE

MediaCastMobile-PERFORMANCE features / Complex architecture with multiple regions and scenarii / Management of up to 100 streams (1Gps maximum throughput) / Local Redundancy or Geo-Redundancy

MediaCastMobile-PERFORMANCE

MediaCastMobile-ACCESS features / Multicast Operation On Demand (MooD) / FileCasting delivery over LTE Broadcast