OTT@Scale

Take Control of your OTT Growth

Are you struggling to deliver Live events at scale with massive audience such as sport events?

Are you looking to expand your OTT subscribers without increasing drastically your network expenses?

Are you aiming to reduce your churn providing the best QoE, whatever the number of concurrent viewers?

It is estimated that video viewing will account for 82% of all Internet traffic from 2022. OTT services and especially video subscription services are becoming increasingly successful. Some OTT platforms such as Amazon, Prime Video, Apple, or Dazn, are progressively buying online rights for sports events, getting exclusivity to broadcast these contents online. Moreover, major CDN providers estimate that video traffic will require Petabit/s transfers in a few years, which will not match with the network capacity and capabilities. It is therefore necessary to rethink the way ABR content is delivered to address the delivery of OTT services to billions of users.

OTT@scale is the ENENSYS' solution to deliver OTT content at scale by distributing ABR content in Multicast mode. It allows optimising network distribution by providing the same content only once to billions of users. And thus, meeting the performance requirements of live online events. OTT@scale reduces CAPEX costs by unifying the delivery of video traffic across all networks. The solution also contributes to reducing the ecological footprint and decreasing the 1% global emissions of today's video traffic.

OTT@Scale is ENENSYS' solution to scale the delivery of streaming services. Whatever the conditions, it guarantees the best QoE for viewers while reducing the network's ecological footprint.
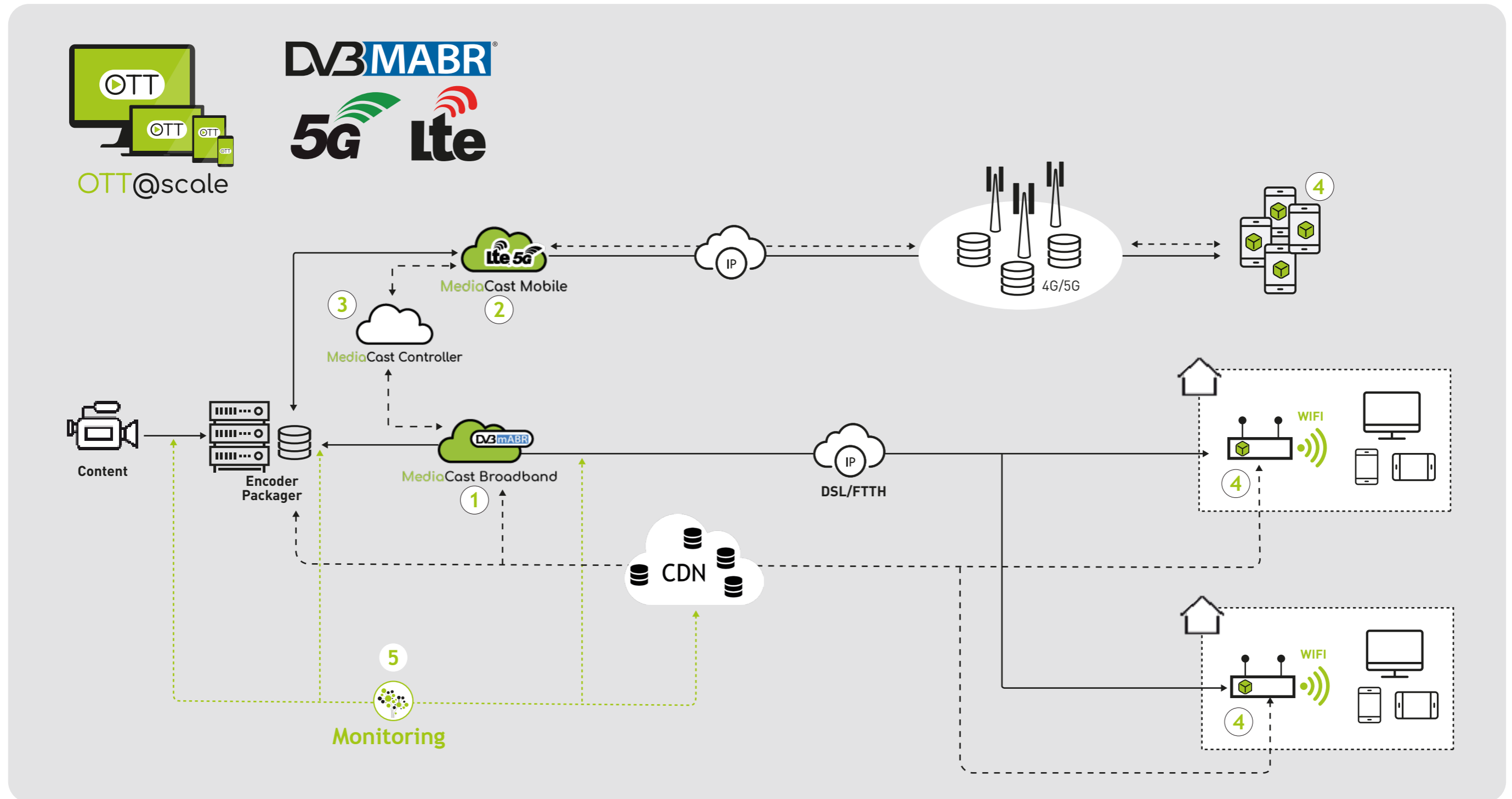
Key Features

- **Distribute linear OTT content in Multicast**
  - based on DVB-MABR and DVB-NIP standard
  - live TV in DASH and HLS format
  - Multicast to Unicast ABR adaptation at the final stage
  - Multicast Operation on Demand (MooD)

- **Direct to Consumer (D2C) OTT services delivery**
  - anywhere on any devices
  - over 4G/5G, broadband
  - maintaining quality no matter the simultaneous users

- **Deliver linear OTT content at the edge**
  - filling caches at the edge of the network
  - offering video services in underserved area
  - enabling service continuity on wifi hotspot

- **24/7 Video QoE & QoS Monitoring**
  - identify the faulty equipment in the video chain
  - propose detailed metrics about the quality over time: video freeze, black screen, audio silence

Benefits

- **Constant High Quality without Latency for live premium TV channels**

- **Highly Scalable CDN for both Live and On-Demand**

- **Made natively for 4G and 5G** - it integrates with operators' 4G and 5G infrastructure

- **Fully standard solution**, compliant to 3GPP and DVB ensuring vendor independence

- **Lowest ecological footprint** thanks to the low hardware requirements of multicast

- **Independent quality experience and quality of service monitoring** by TestTree solution

- Can be used **with your existing CDN** or delivered **with our partner CDN**

ENENSYS technologies

DVB MABR® 5G Lte

www.enensys.com

OTT@Scale architecture

Delivery Server

1/MediaCast Broadband

- Stream OTT (DASH, HLS) in multicast
- FLUTE/ROUTE delivery
- Generate Bootstrap and Multicast channel map
- Compliant with DVB / 3GPP standards

4G/5G Gateway

2/MediaCast Mobile

- Gateway for 4G/5G network
- eMBMS, 5GMBS
- Compatible with 5G
- SFN support
- Compliant with 3GPP standards

Provisioning Manager

3/MediaCast Controller

- Unifying Broadband & Mobile Service Delivery
- Multicast Services Configuration
- Get Audience logs to trigger switch from Unicast to Multicast
- Multi-tenant architecture

Terminal Software

4/CubeAgent

- Multicast to Unicast ABR
- DVB, 3GPP compliant
- Monitor audience
- Supports multiple profile
- API controllable

Monitoring Probe

5/TestTree StreamProbe

- Monitor OTT QoS, QoE
- Real-Time detection
- HLS, DASH
- Freeze, Black screen, Audio silence...
- Scalable

OTT@Scale

MULTICAST SERVER

MediaCast Broadband

- Delivers High Bit Rate video to million users in a single stream
- DVB compliant Multicast ABR
- Multi-profile Dash and HLS
- Ultra Low latency CMAF & Fast Zapping
- Forward Error Correction
- Push File delivery in Multicast
- Scalable, Redundant, Virtualized

MABR MULTICAST GATEWAY

CubeAgent Broadband

- Multicast to Unicast ABR function
- Player and CDN Agnostic
- Runs on HomeGateways, Set-Top-Boxes
- Runs on Linux, Android (any OS)
- QoS & Consumption Reports
- Ultra Low latency CMAF & Fast Zapping
- Targeted Advertising Transparent support

4G/5G MOBILE GATEWAY

MediaCast Mobile

- Mobile Gateway to deliver OTT traffic over 4G/5G
- Multicast delivery based on eMBMS/5GMBS
- MBSFN support
- Interface with MME and MCE to control the Multicast Traffic
- Fully Virtualized
- HA, Geo-Redundant & Scalable

4G/5G/MABR MULTICAST GATEWAY

CubeAgent Mobile

- Multicast to Unicast ABR function
- Player and CDN Agnostic
- Runs on 4G/5G Mobile devices
- eMBMS/5GMBS support
- Runs on Android (any OS)
- QoS & Consumption Reports
- Already deployed in +1M devices

PROVISIONING MANAGER

MediaCast Controller

- Unifying Broadband & Mobile Service Delivery
- Multicast Services Configuration
- Multi-tenant architecture
- Report Reception
- Consumption Reception
- Manage Automatic switch between Unicast to Multicast (MooD)

Some Consumer devices integrated with CubeAgent

Galaxy S22

Xcover FieldPro

And many more Samsung Galaxy since S8 model

VIDEO QOS/Q0E MONITORING

TestTree StreamProbe

- 24/7 monitoring of the video QoS & QoE
- Contribution / Encoding / Packaging
- IPTV/OTT/VOD/2110 24/7 Monitoring
- Live thumbnails mosaic
- Scalable: grow as you need
- Software & cloud-ready

CrossCall CORE-X5

Bittium TM1 & TM2

Ellipsis 10" & 8"

SagemCom F@st 3890 V3

Technicolor HomeGateway

EKT DSD4825

SHIELD TV Pro

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