Synamedia | Infinite Entertainment

What does 5G *Really* Mean for Video?

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The Changing face of Video Consumption

9x
MORE MOBILE VIDEO IN 2 YEARS

2x
MORE MOBILE VIDEO CONSUMED BY MILLENIALS THAN 25-39 YEAR OLDS

82%
OF IP TRAFFIC WILL BE VIDEO BY 2020

75%
OF MOBILE DATA TRAFFIC WILL BE VIDEO BY 2021

The Promise of 5G

Extensive - Will provide a low latency, high bandwidth network to billions of existing and new static and mobile devices

Intelligent - Will provide new technologies for improved bandwidth management and smart edge applications

Competitive – Will provide an alternative to digital terrestrial and wired networks (ADSL/Cable) for broadband video distribution

5G Highlights

Higher Bandwidth

2 Gb/s peak instead of 20 Mb/s

Enables UHD, 4k and 8k video

Internet of Things

Automotive & Public transportation systems

10 to 100 times devices supported per area

Low Latency

0.5 to 1 ms from 20 ms in Radio Network

Network Slicing e.g. Direct to broadcast

Multi-Access Edge Computing (MEC)

- Improves 5G Performance and Network Capacity
  - Low latency, Bandwidth efficient
  - Less Network Congestion

- Turns Network into a Virtual Platform
  - Supports intelligent network routing
  - Provides applications with greater network context

- Multiple Deployment Options
  - Flexible application deployment

What does MEC mean for video?

Video Clients

CPU/Storage

Intelligence at the Network Edge

CPU/Storage

Server Farm/Cloud

CPU/Storage

Complexity

Services

Video | Security

Scalability & Performance

Improvements from Edge compute

**Video Server Functionality**

- **Lower Latency**
  - Core Ntwk 5X more latent than RAN
- **Limits Traffic in Core Network**
  - Major advantage to MNO
- **Network Aware Applications**
  - Location
  - Roaming status
  - Connectivity

Client Functionality

- **Thinner and Simpler Client**
  - Faster development Velocity
  - Easier upgrades
- **Enables Support of More Types Clients**
  - Any OS, Vendor or Footprint
- **Enables more sophisticated functionality**
  - More processing at edge
- **Better Security**
- **Longer Lasting Battery**

Video Services at the Edge
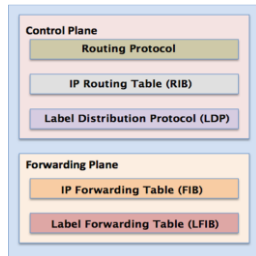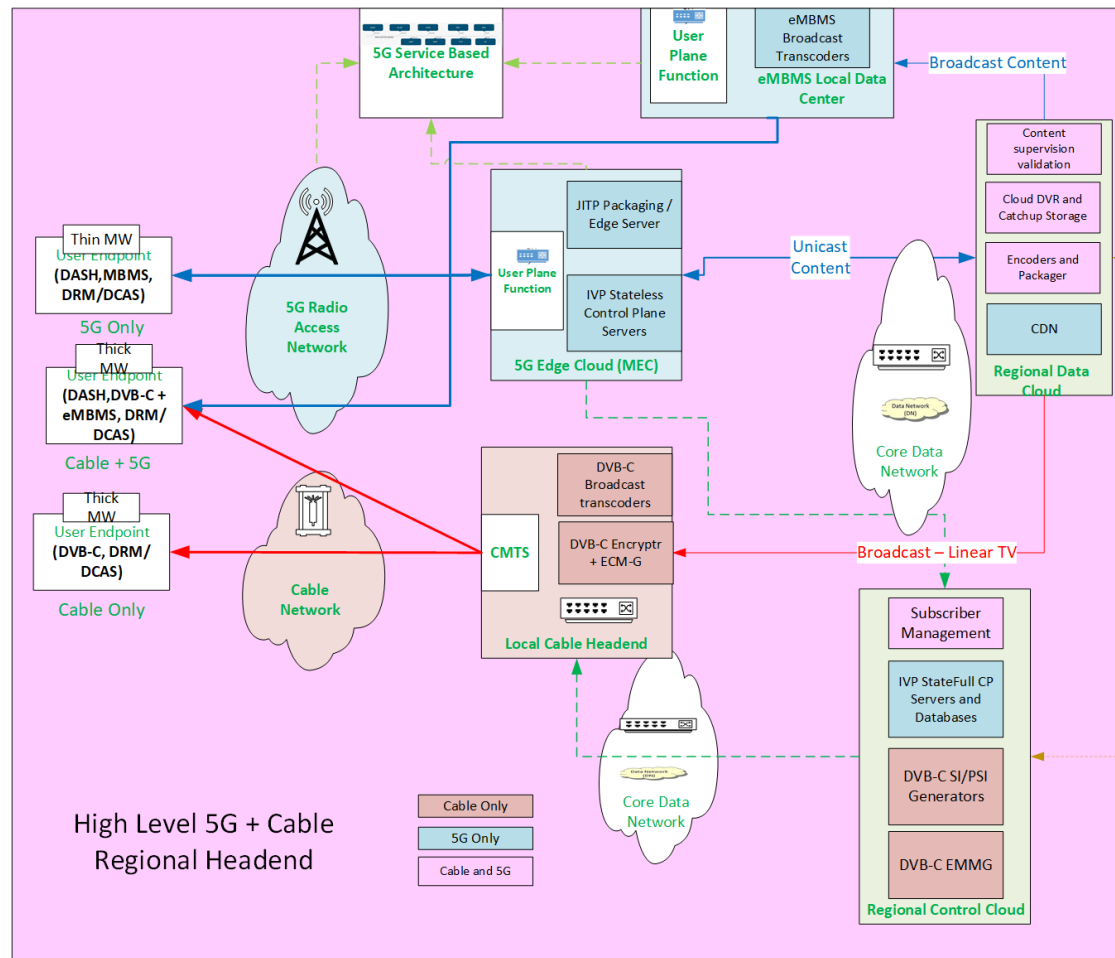

Control Plane

- Authentication
- Authorization
- DRM
- EPG Rendering
- Analytics
- VPN Detection
- Zero Rating

Data Plane

- Watermarking
- Fast Channel Change
- Smart Caching
- Targeted Advertisements
- Local Content
- Augmented Reality

Cable and 5G in a single architecture

- Single regional headend may support both Cable and 5G

- Some devices may include only DVB-C, some only 5G and some both.

- Synamedia will deploy a single system than can support both 5G and Cable networks together in the most optimal fashion

- Utilizing both multi-access edge computing to minimize network traffic, reduce cost and optimize performance

- Analytics from cable and 5G systems presented in a common, consistent format

Market Movement – Vodafone Giga TV

Business Objective

To provide Vodafone's consumers access to a vast selection of channels and VoD offers via a next-generation cloud video service. The service is accessible through a TV set-top box or smartphone and tablet applications.

Solution

Synamedia Infinite Platform multi-screen experience supporting GigaTV OTT and GigaTV Cable-IP Hybrid pay-tv service tiers and Giga Net pure OTT Service

Outcome

GigaTV delivers a seamless viewing experience in and out of the home. Delight consumers with intuitive navigation, personalized content recommendations, voice control, and direct access to

Summary

- 5G gives us the opportunity to improve video entertainment services with better quality, more viewing options and great user experiences

- It also gives us the chance to build smarter systems requiring less resources in a more distributed landscape

- And it's coming soon. So now is the time to:
  - **Start delivering your services**
  - **Build your audience**
  - **Prepare for the next wave of transformation**

Synamedia

Thank You