Optimizing Live and Digital Media Services with LTE Broadcast

Norman Tyrrell, Qualcomm, Inc.

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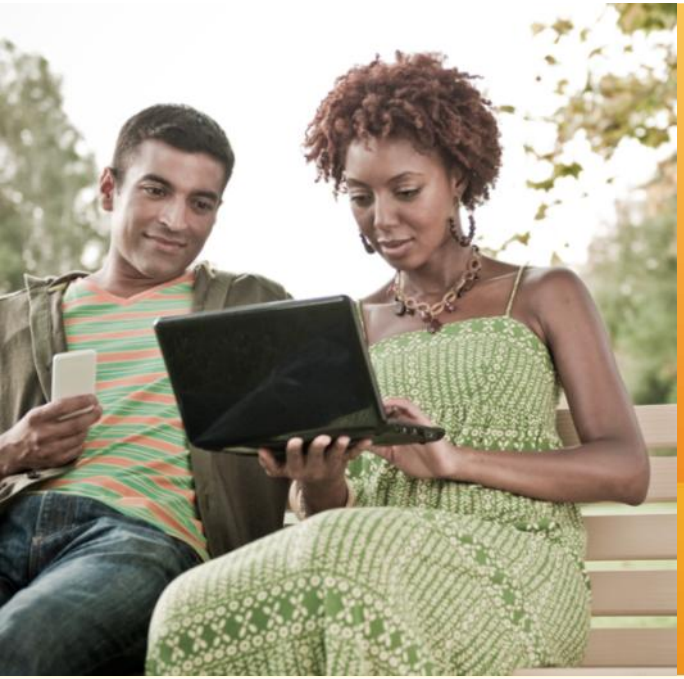

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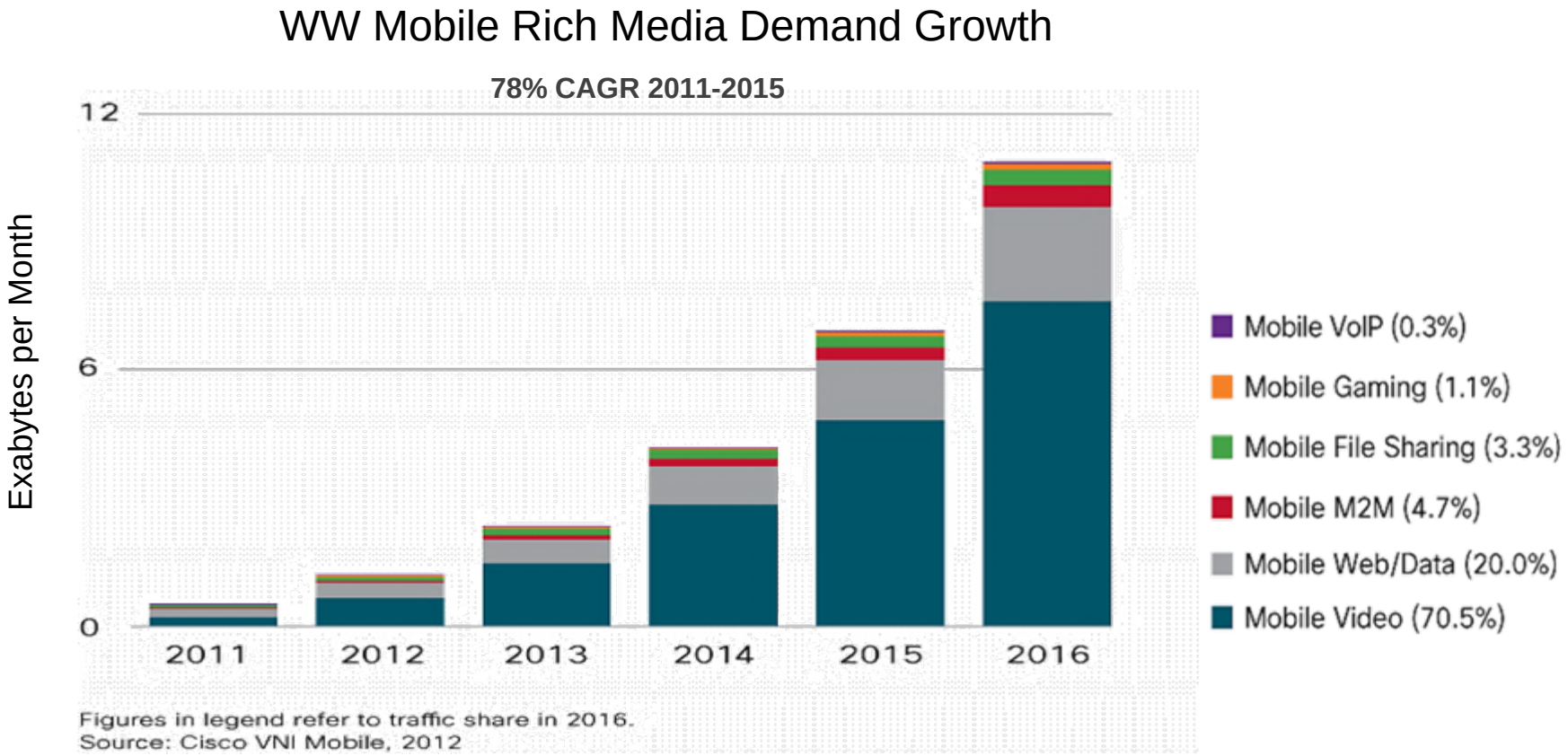
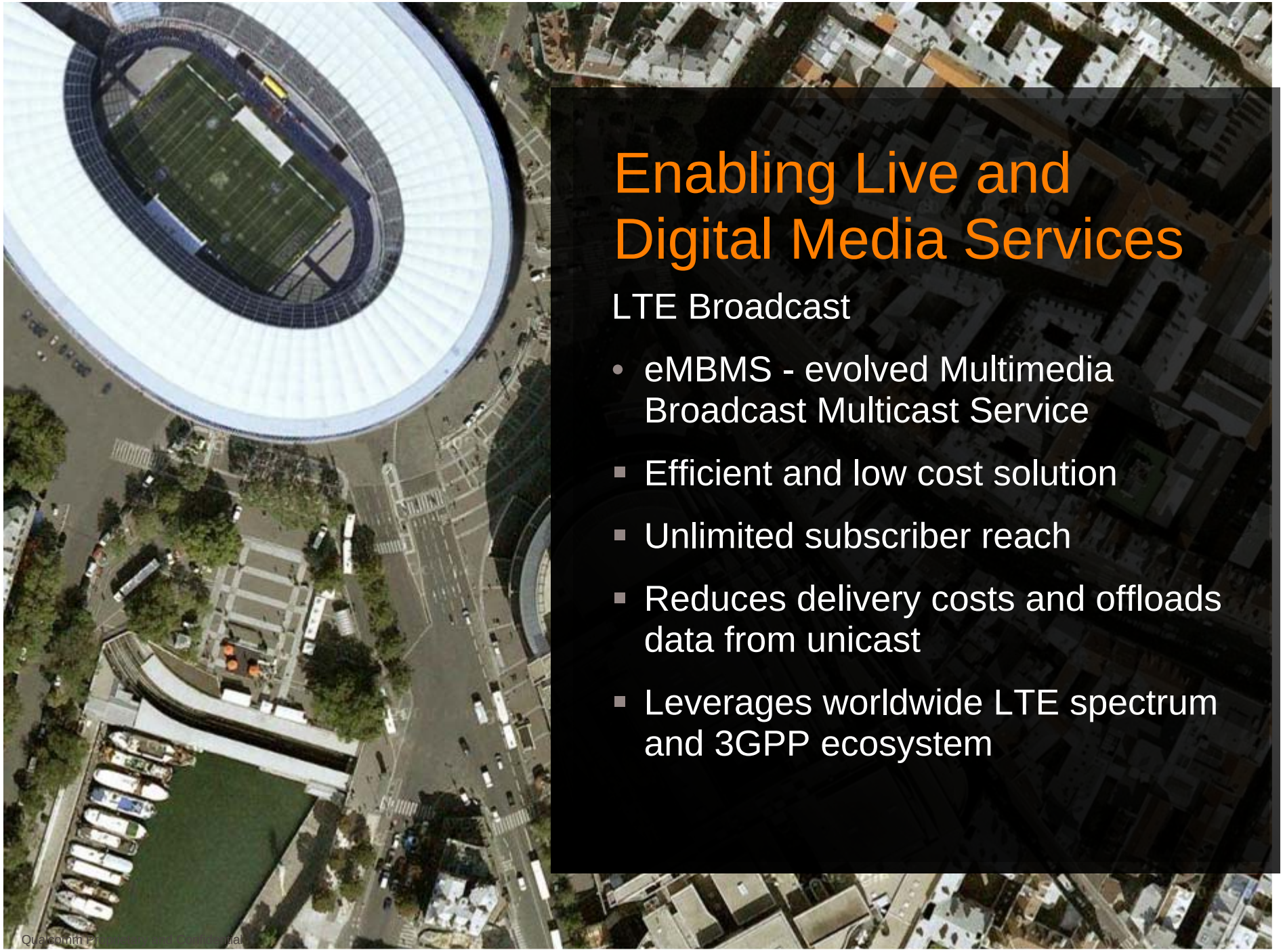
Data Demand Outpacing Supply

VIDEO IS A “KILLER APP” FOR MOBILE NETWORKS



Source: Cisco VNI Mobile, 2012



Enabling Live and Digital Media Services

LTE Broadcast

- eMBMS - evolved Multimedia Broadcast Multicast Service
- Efficient and low cost solution
- Unlimited subscriber reach
- Reduces delivery costs and offloads data from unicast
- Leverages worldwide LTE spectrum and 3GPP ecosystem

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LTE Broadcast Enabled Service Opportunities

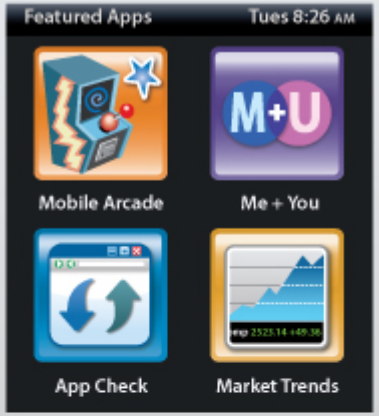
Drive ARPU and Reduce Cost

DELIVER LIVE EVENTS

- Live sporting events
- Breaking news
- “Must-see” live events
- Venuecasting

DISTRIBUTE EMEDIA

- Catch-up TV
- Print media delivery
- Digital signage
- Targeted advertising
- eLearning



OFFLOAD DATA

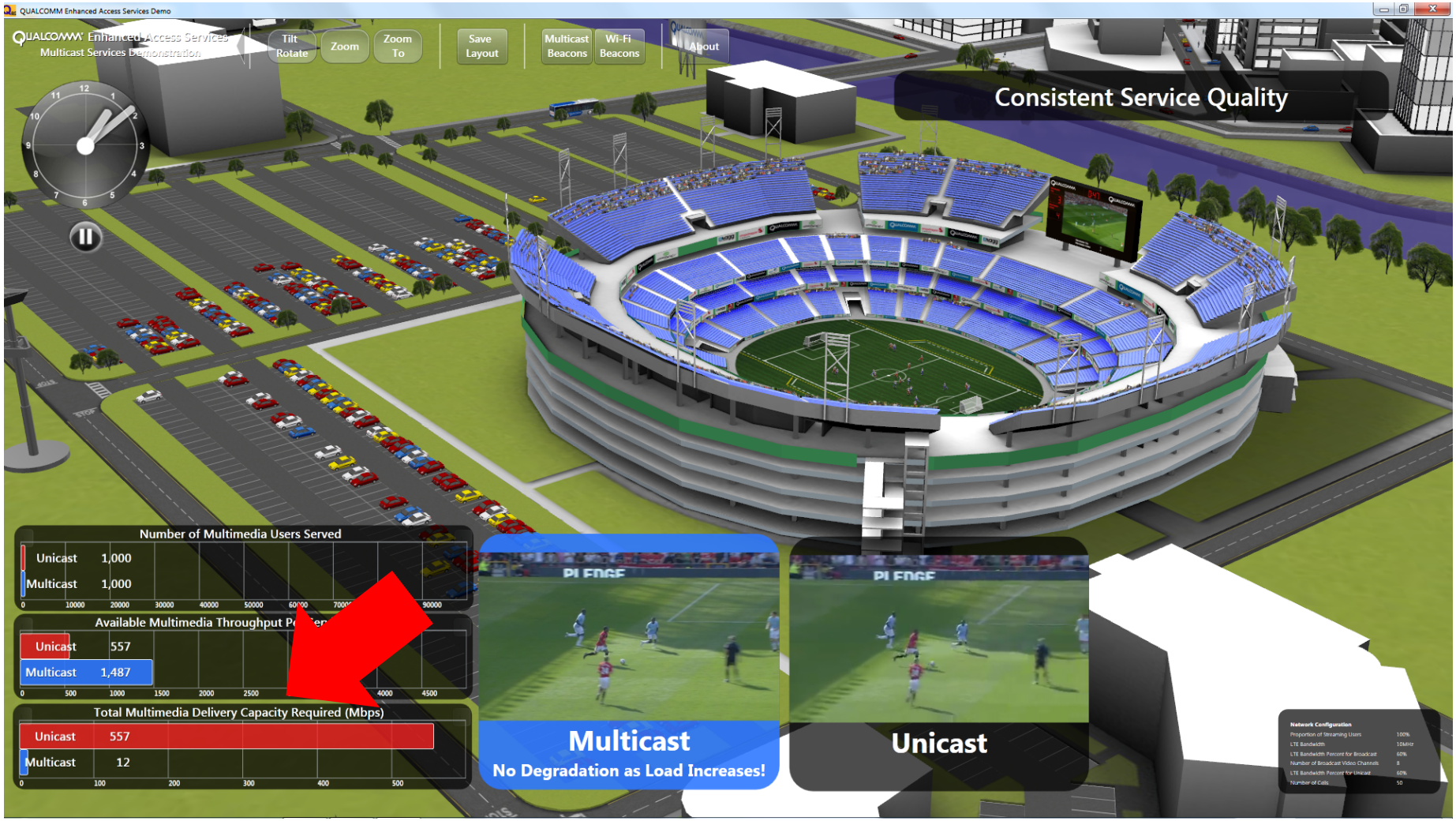
- Firmware Over the Air (FOTA)
- Featured applications
- Popular application updates
- Live tickers

MANAGE CONGESTION

- Breaking news triggered media content
- Top YouTube video clips
- Machine-to-machine

* for illustrative purposes only

Scalable Video Delivery for Live Events



- As number of users increases, unicast network capacity is strained…

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Scalable Video Delivery for Live Events

- Broadcast/multicast delivers consistent quality regardless of number of users.

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Off-Peak Media and Software Delivery

- File download use cases minimize the user's utilization of unicast delivery.

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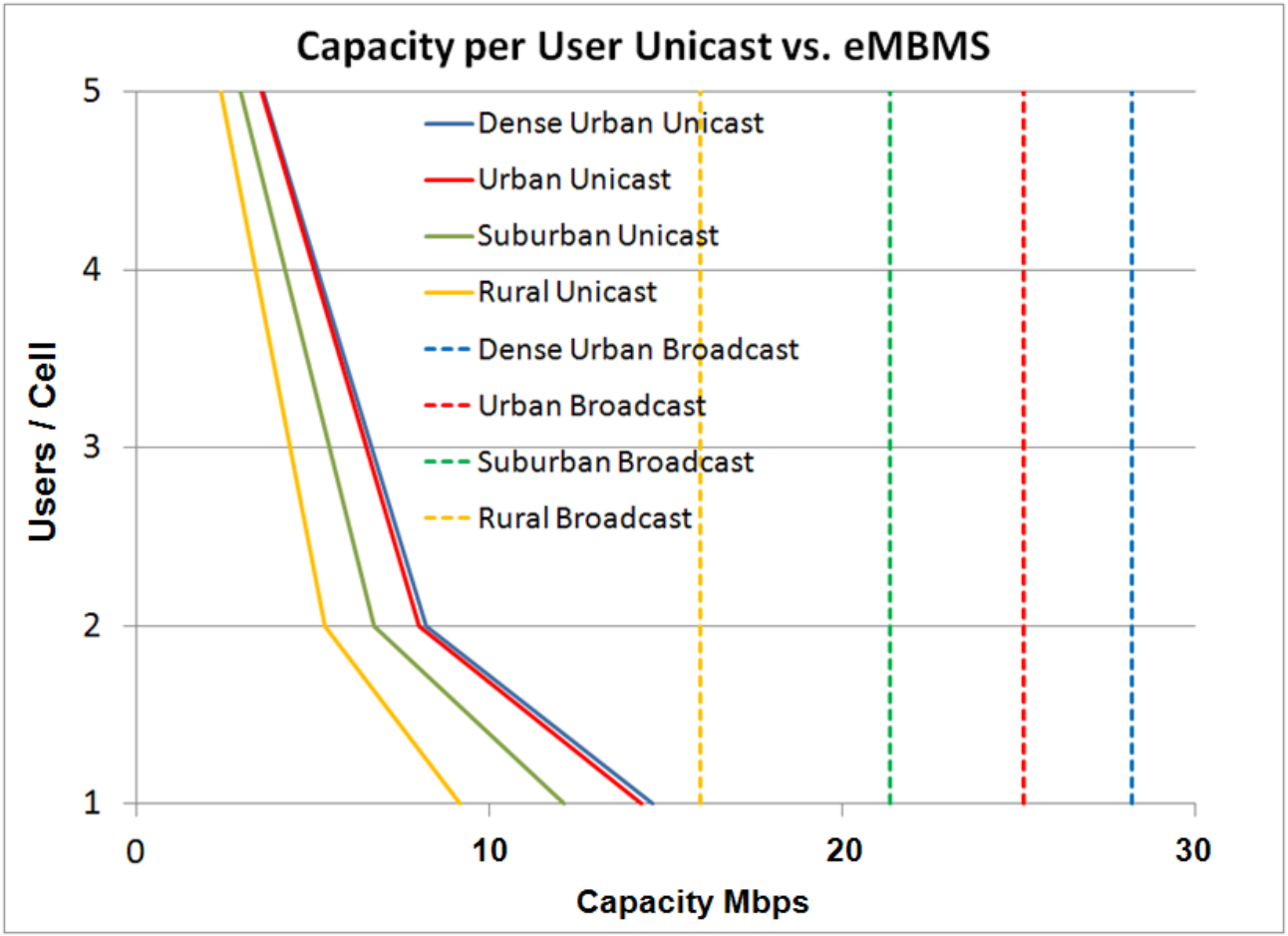
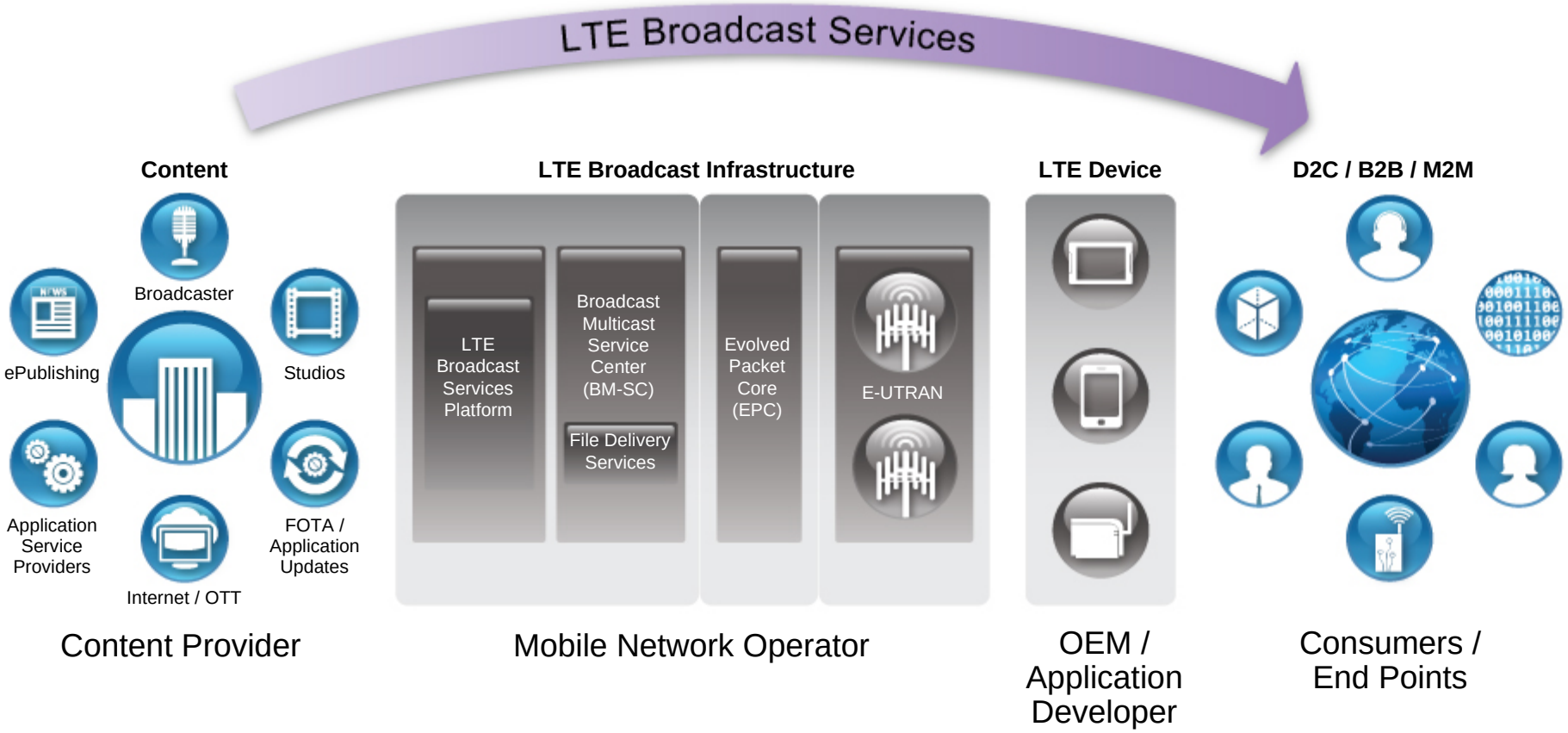
Optimizing Capacity with LTE Broadcast

- Significant capacity gains are possible, when the number of users of a specific service per cell exceeds 1 user per cell, i.e. 3 users per site

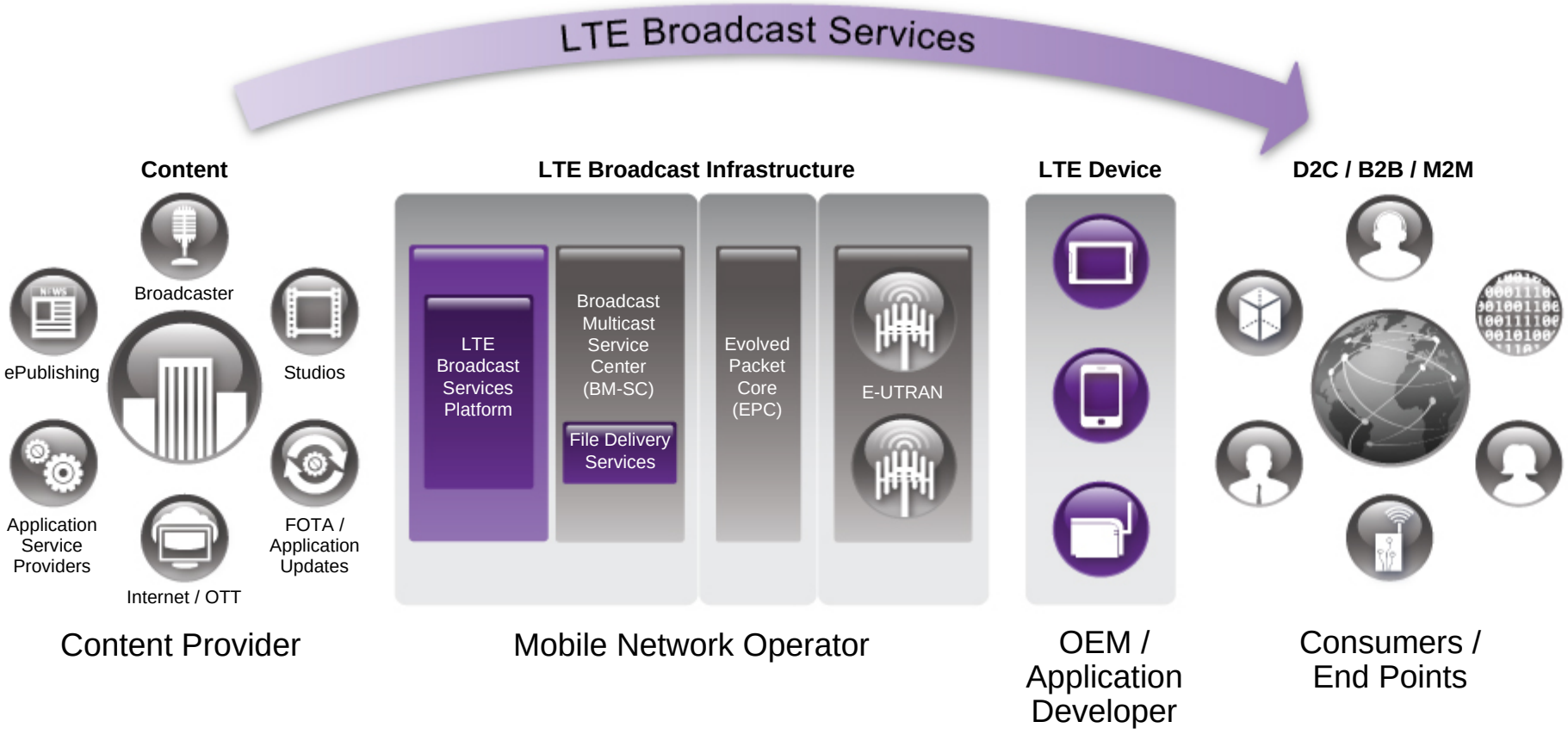


Source: Internal Qualcomm Simulations

LTE Broadcast Services Ecosystem

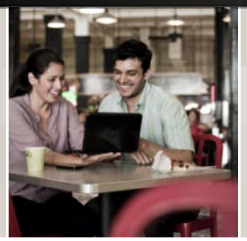
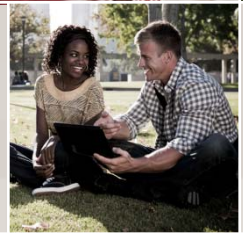


LTE Broadcast Services Ecosystem



Qualcomm Is a Leader in Next-Generation Mobile Broadcast Technologies

- Enabling LTE broadcast is an essential strategy to meet ever-increasing data volumes
- Multicast use cases reduce cost, drive ARPU
- Qualcomm has a 3GPP-based, end-to-end solution enabling efficient and high quality broadcast services on LTE

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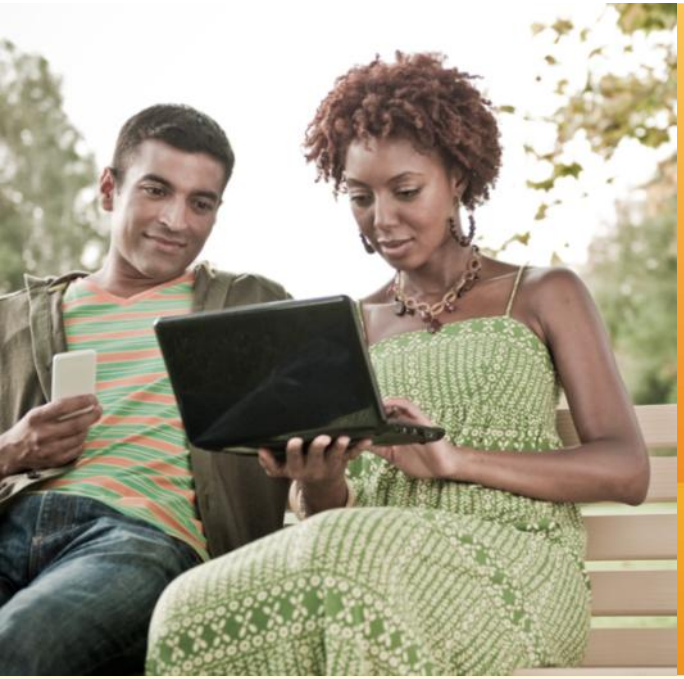

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Thank You!

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