This is an extract from the full report. For costs and further information, please visit www.codarc.co.uk, or email steve.smith@codarc.co.uk

Laptops and Netbooks: Mobile Broadband Traffic Across Regions 2009-2017

Abstract and selected highlights

- In this report we present **forecasts concerning mobile broadband access via laptops and netbooks ('portables')**. These forecasts consist of 37 graphs and tables covering traffic up to and including 2017, split by five key regions (Europe, Asia Pacific [incl. Japan and China], North America, Latin America, and Middle East and Africa). Included in these are commentary, and separate forecasts for LTE (Long Term Evolution).
- Key Questions answered in this report:
  - What types of traffic will each region generate?
  - What proportions of this traffic will be generated by LTE?
  - What are the trends, drivers and constraints impacting and shaping the development of the mobile broadband, including LTE, market?
- Methodology: The report derives from extensive statistical and qualitative data analysis and modelling conducted over two months across the regions specified. It takes into account current and future technological, social, demographic, economic and political conditions and changes
- Who this report is for:
  - Device and component vendors
  - Mobile network operators
  - Media organisations
  - Consultants
  - Financial analysts
  - Application, content and service providers

- Traffic via portables will grow 40 fold by 2017, to 1.8 exabytes per month (CAGR 59%)
- Non-P2P video traffic will grow the greatest (CAGR 68%), and will account for over half (53%) of traffic via portables by 2017.
- Traffic from Asia Pacific users will be the greatest among all the regions, consisting of just under half of all worldwide traffic per month (46%).
- China and India will see levels of P2P traffic approaching one third of their overall mobile broadband traffic via portables.
- Europe will account for 26% of all global traffic, and North America 15%.
- Together, Europe and North America will account for 40% of all P2P and video traffic consumed globally.
- LTE will lead to more traffic per user than for mobile broadband in general. LTE via portables will hit 1.1 exabytes per month in 2017, with Asia Pacific taking up 45% of this
- Legal and illegal video traffic consumption will necessitate radical efficiency drives because of significant pressure upon operator revenue and network capacity
- Increased dissatisfaction with bandwidth and speed. In parts of Europe such as in the UK, as many as three quarters of users are currently dissatisfied with the speeds they receive. Government inaction on helping operators to keep up with consumers' behaviour and expectations is partly to blame. Long Term Evolution (LTE) will help meet consumers' expectations, but it LTE will not hit the market with any significance until 2012 at the earliest.

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Market Analysis
Printed page length: 35
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Selected highlights

- Traffic via portables to reach 1.8 exabytes per month by 2017 – a CAGR of 59% over 2009
- Nearly three quarters (1.3 exabytes) of this will be video traffic - a CAGR of 64% over 2009.
- Top region for video consumption will be Asia Pacific, which will account for just over half (53%) of all video traffic globally. To contrast, Europe will account for 26% of all global video traffic, and North America 14%.
- The prominence of Asia Pacific represents its overall broadband traffic consumption via portables. Just under half (46%) of all global traffic via portables will be consumed in Asia Pacific. This is due in part to mobile broadband being the sole vehicle for many people to access broadband in developing countries.
- To compare, Europe will account for 26% of all global traffic, North America for 15%, Middle East and Africa for 5%, and Central and South America for 8%.
- Two thirds of global traffic via portables will be via Long Term Evolution (LTE) come 2017.
- LTE to form two thirds of global traffic by 2017
- Asia Pacific will consume just under half (45%) of global LTE traffic via portables by 2017. However, Europe and North America will be ahead in terms of LTE take up. 80% of traffic via portables in Europe will be via LTE, and three quarters of traffic in North America will be via this specification.
- Service providers, content owners and rights' holders should be greatly concerned about forecasts for video content consumed illegally in Asia Pacific. This contrasts with most developed countries, where legal video will tend to dominate mobile broadband traffic. Overall, the vast amount of traffic people will consume worldwide will put pressure on operator revenues and network capacity, necessitating radical efficiency drives.
- In the short term, increased frustration with bandwidth and speed will grow. In parts of western Europe, as many as three quarters of users are dissatisfied with the speeds they receive. We understand that government inaction is partly to blame. By falling behind in passing adequate legislation, many governments have hindered operators from keeping up with the behaviour and expectations of the majority of consumers. LTE will help meet consumers' demands once it begins to impact the market, but this will not be until 2013.

Mobile broadband traffic forecasts

(note: tabular data appear in appendices)

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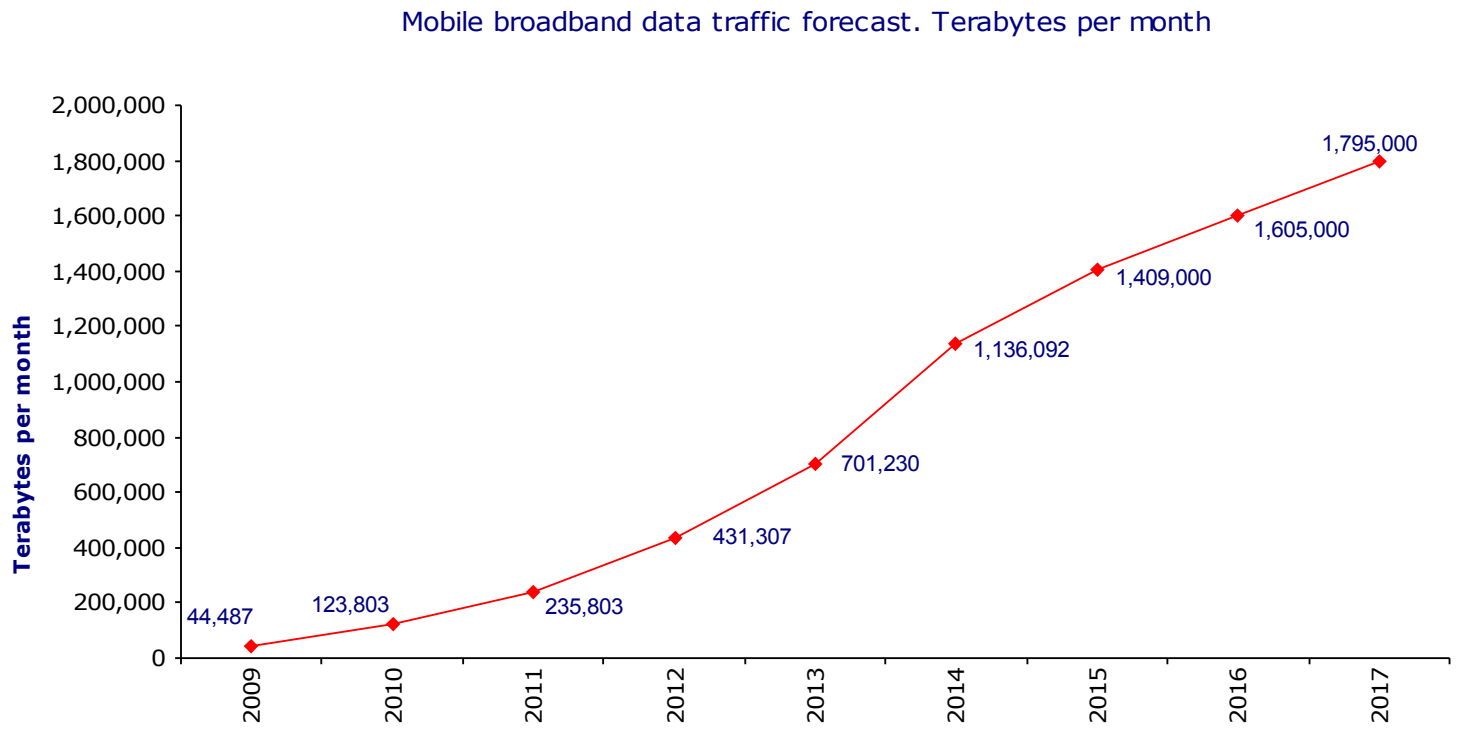
Worldwide mobile broadband traffic forecast – 2009-2017

- Around 80% of the world's three billion broadband subscriptions will be mobile by 2013.
- Only 40 percent of mobile broadband users will be on long-term monthly contracts by 2012
- Growth in traffic vastly outstrips both revenue and users (cited from Coda's report "Mobile broadband and portable computers"), meaning increased stress upon and need for investment in network capabilities. This is particularly the case for Asia Pacific and Europe. In Europe we envisage continued consumer dissatisfaction with network speeds, in part due to government inaction over policy.
- Global monthly data traffic will grow from 44,487 terabytes per month in 2009, to 1.8 exabytes per month in 2017
- This is a CAGR of 59%, and a 40 fold increase
- Growth will rise significantly following 2012, when a ramp up in production in LTE takes place. However, UK risks being left behind due to 900 MHz spectrum not being opened up to all operators



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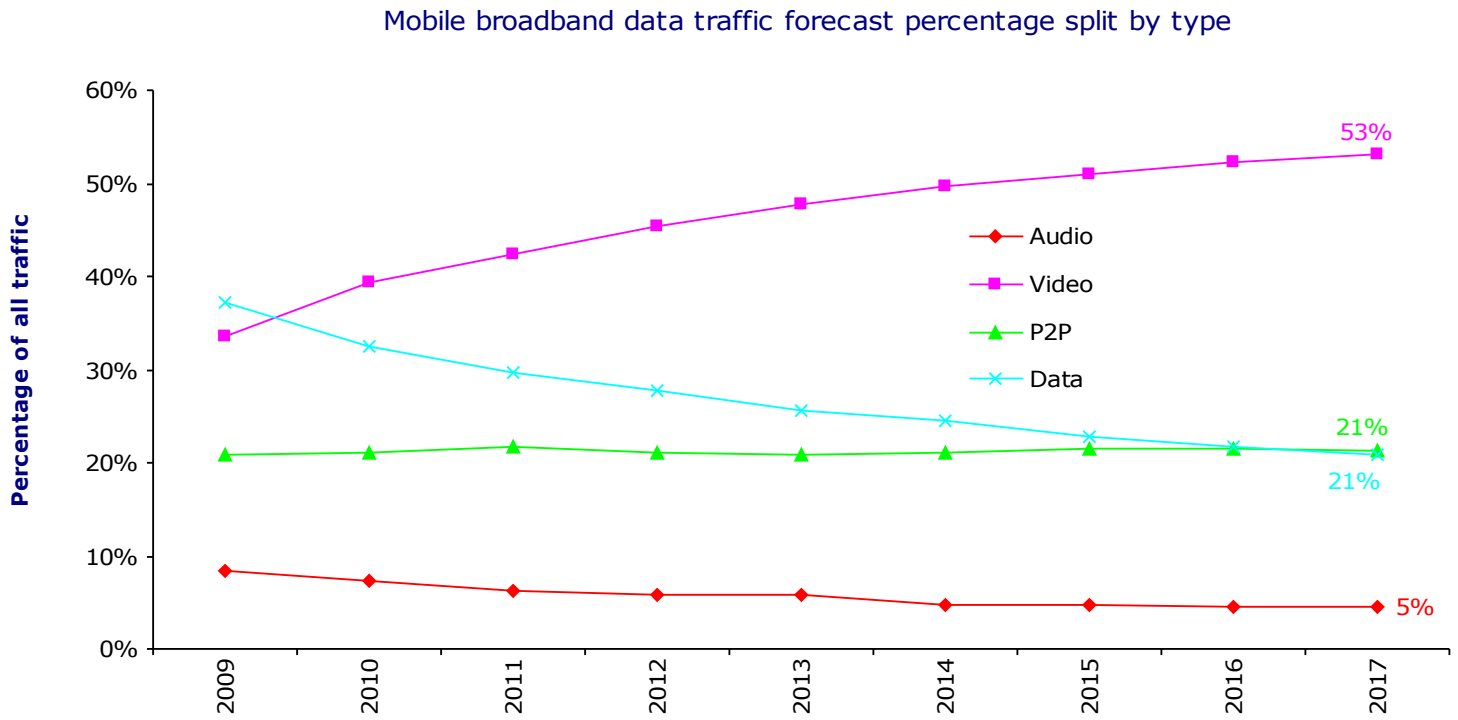
Worldwide mobile broadband traffic forecast by type percentage split – 2009-2017

- By 2015, video will account for half of all mobile broadband traffic, and 53% by 2017. This is up from a third in 2009
- Whilst we project P2P traffic will remain approximately the same, video will grow mostly at the expense of growth in data traffic
- In developing countries of Central and South America, Middle East and Africa, traffic will be characterised much more by P2P and straightforward data such as email and web pages.
- P2P traffic across developing nations and volume of P2P in Asia Pacific should be of obvious concern to video rights' holders and content owners
- In the rest of the world, the sheer amount of data video users will consume – made available through legal sources such as Hulu and Project Canvas - should be of concern to mobile broadband providers.
- Providers will need to make significant investment to meet rising demand for mobile broadband access and increased speeds. In many parts of Europe and the UK, as many three quarters of users are currently dissatisfied with the speeds they receive



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The following slides, along with charts, commentary and other data, appear in the full report

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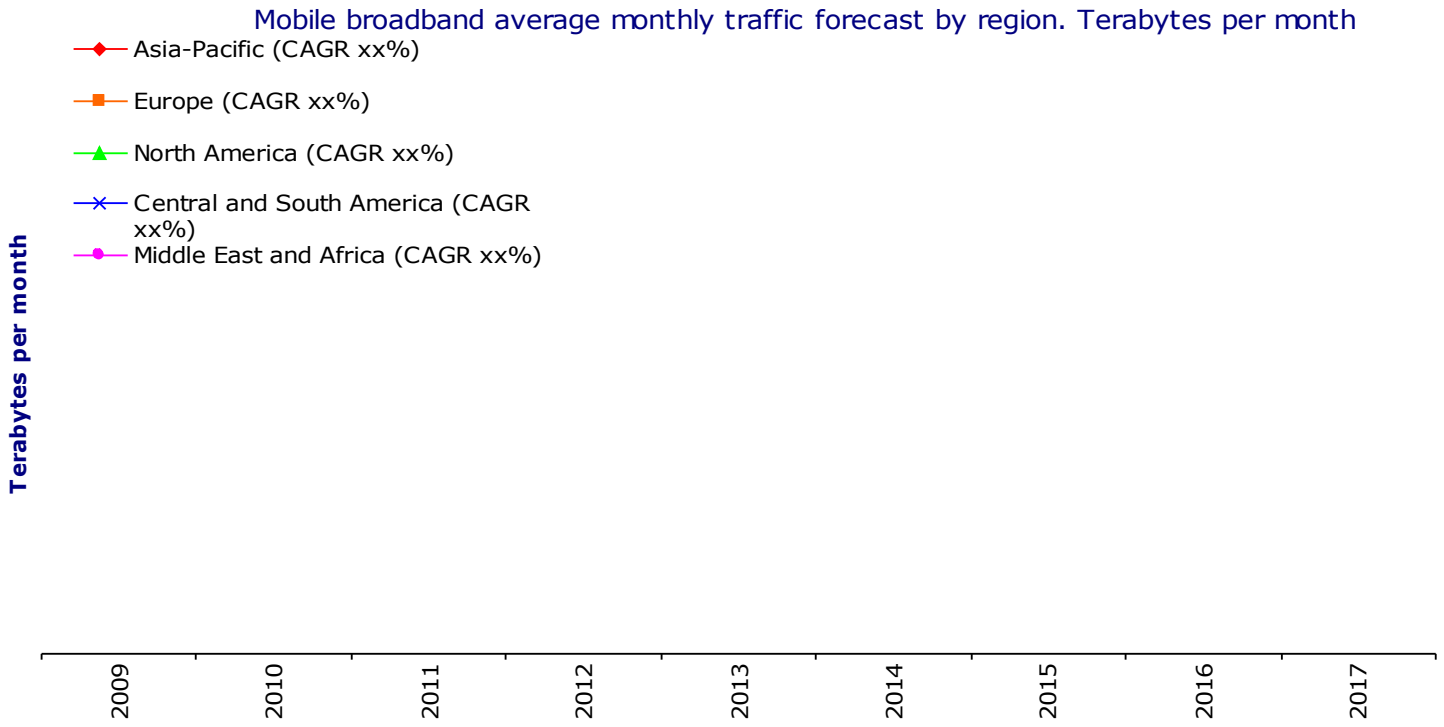
Regional mobile broadband traffic forecast – 2009-2017

- Commentary



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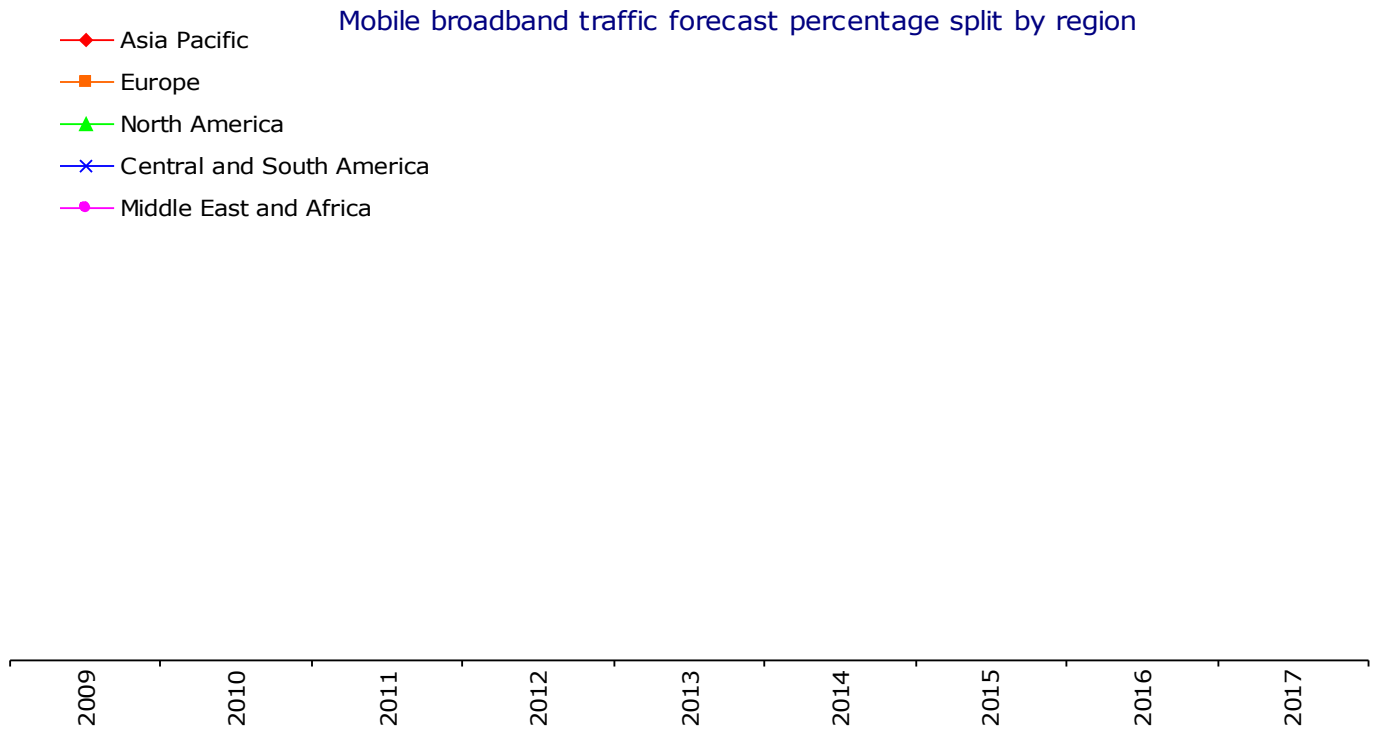
Regional mobile broadband traffic forecast percentage split – 2009-2017

- Commentary



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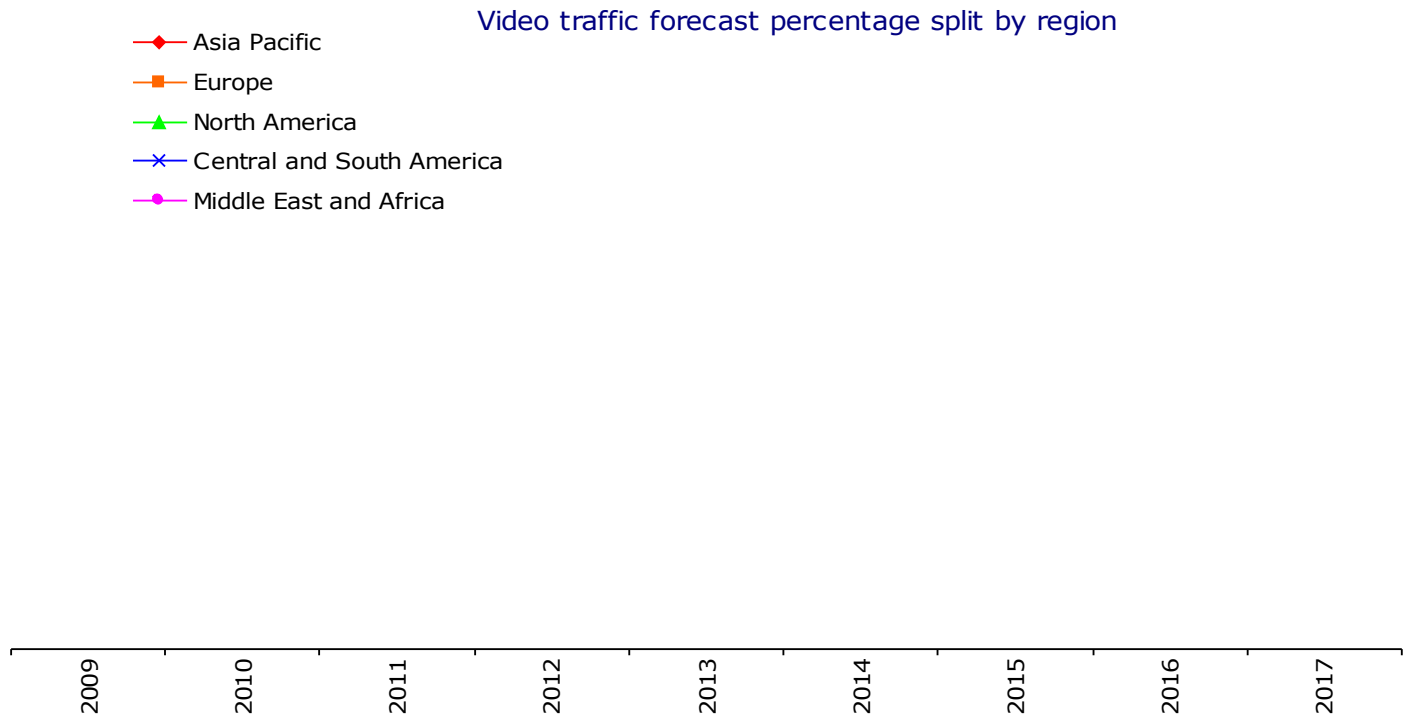
Mobile broadband video traffic forecast percentage split by region – 2009-2017

- Commentary



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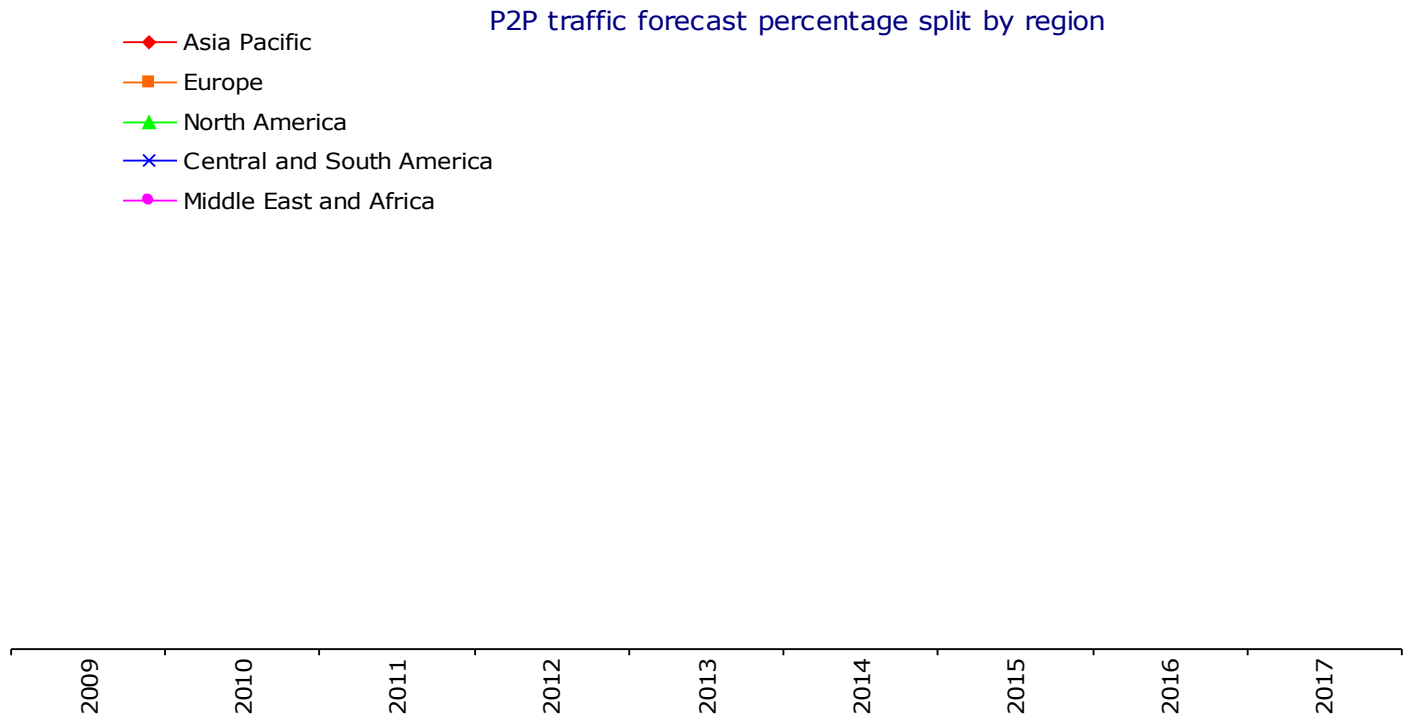
Mobile broadband P2P traffic forecast percentage split by region – 2009-2017

- Commentary



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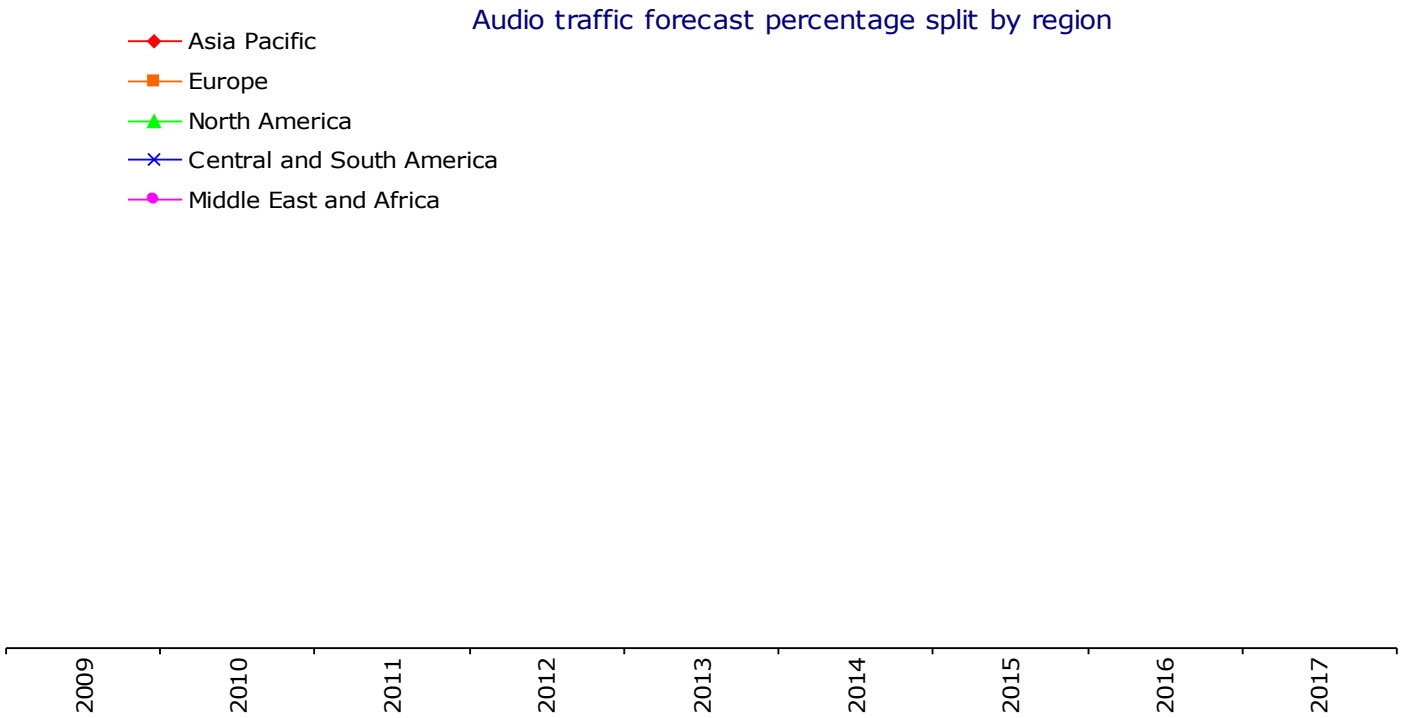
Mobile broadband audio traffic forecast percentage split by region – 2009-2017

- Commentary



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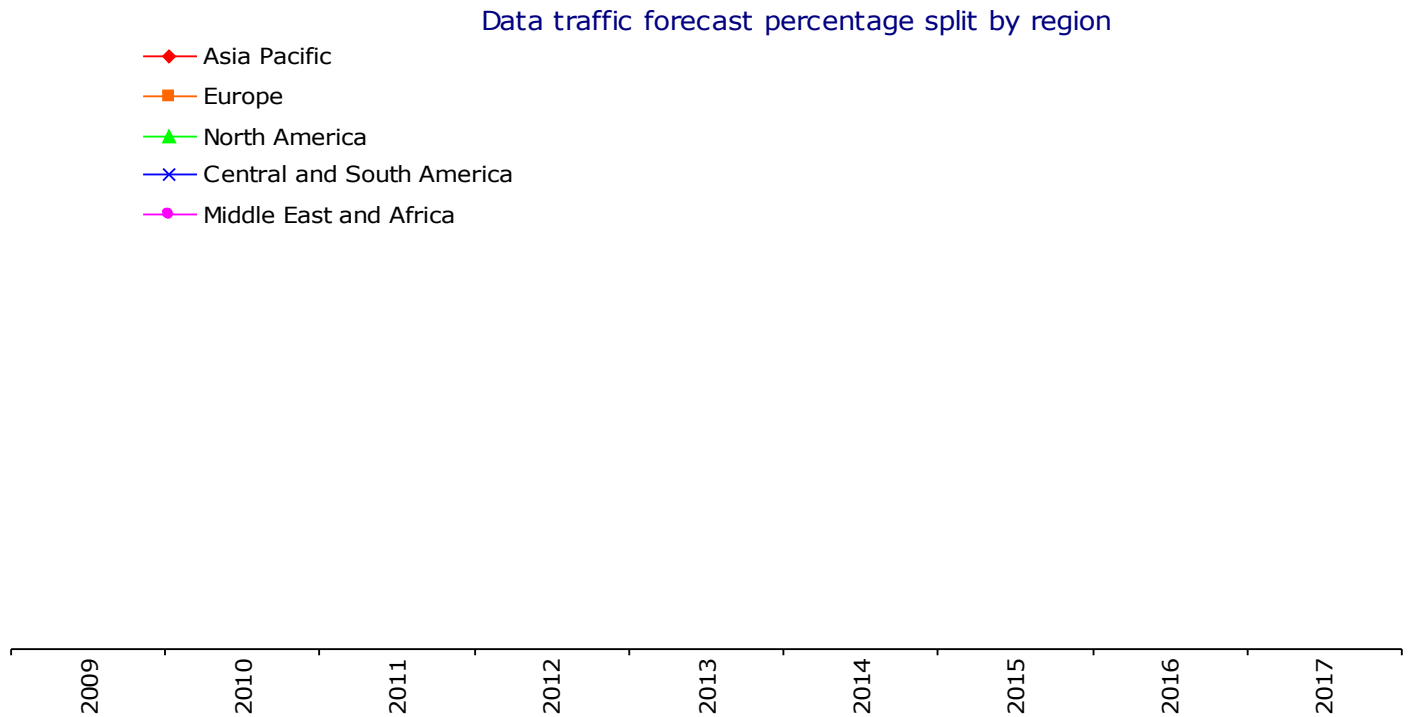
Mobile broadband data traffic forecast percentage split by region – 2009-2017

- Commentary



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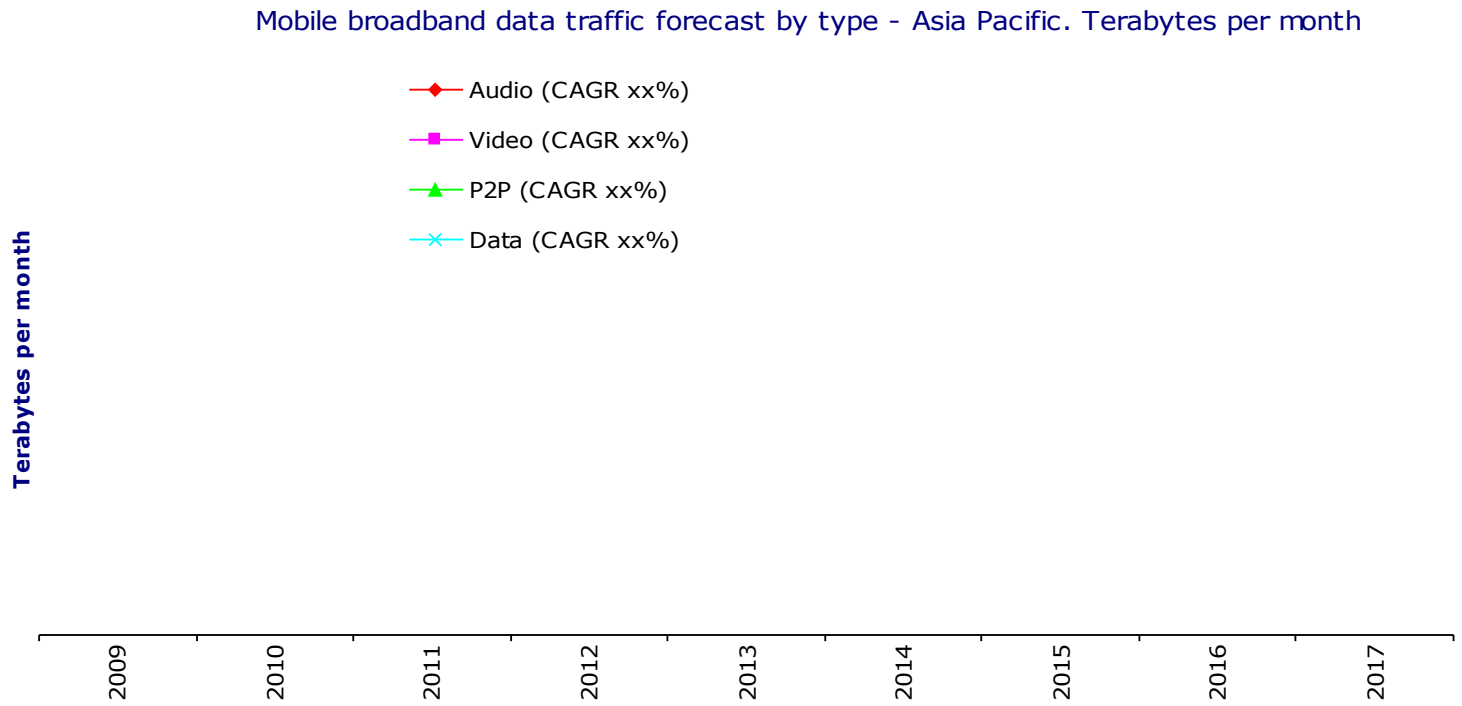
Asia Pacific mobile broadband traffic forecast – 2009-2017

- Commentary



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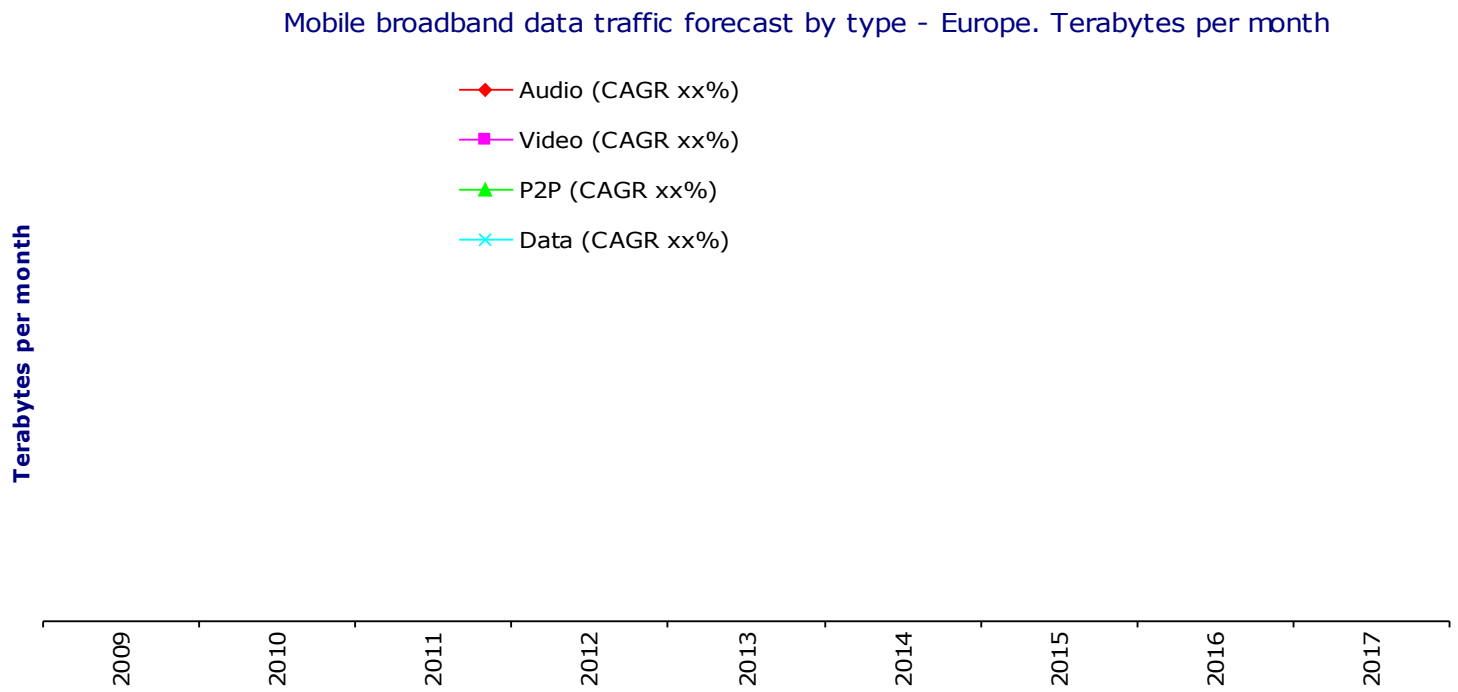
Europe mobile broadband traffic forecast – 2009-2017

- Commentary



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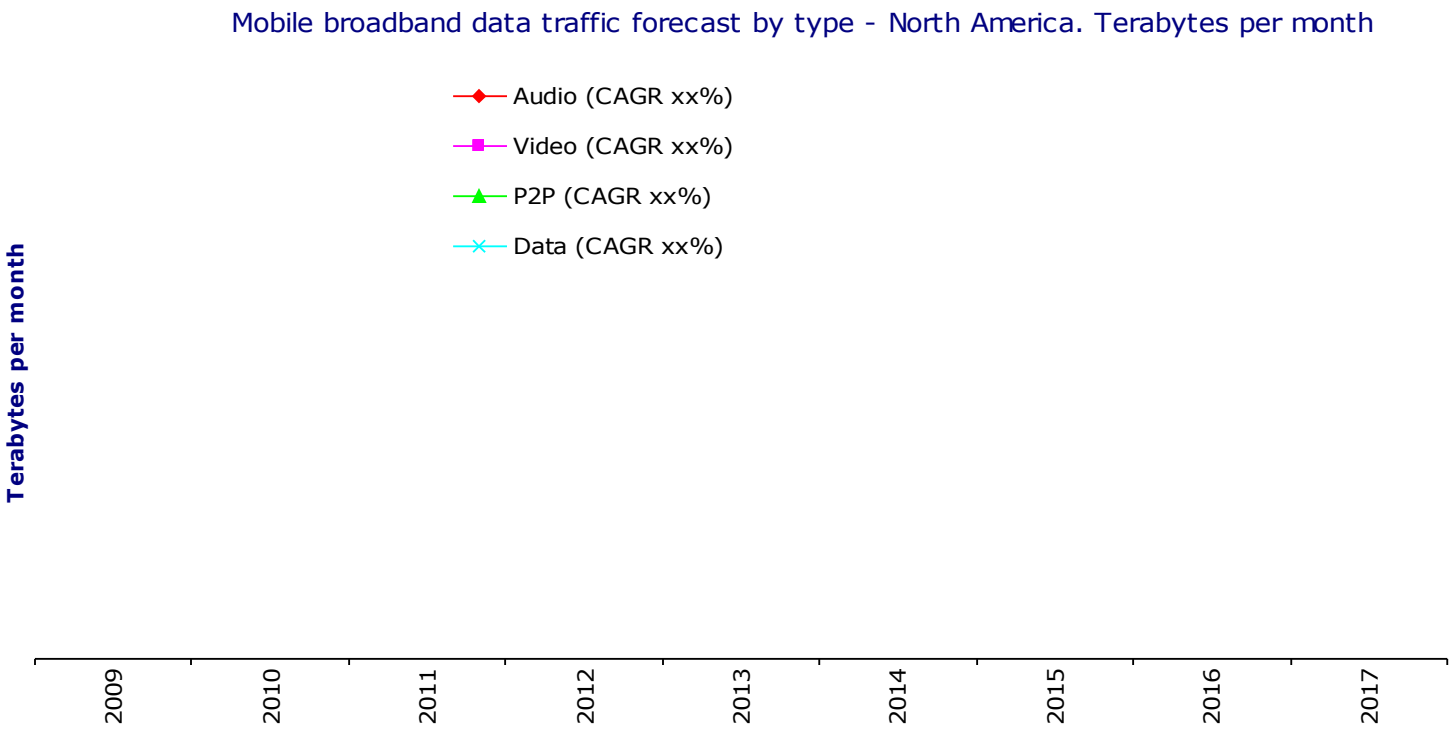
North America mobile broadband traffic forecast – 2009-2017

- Commentary



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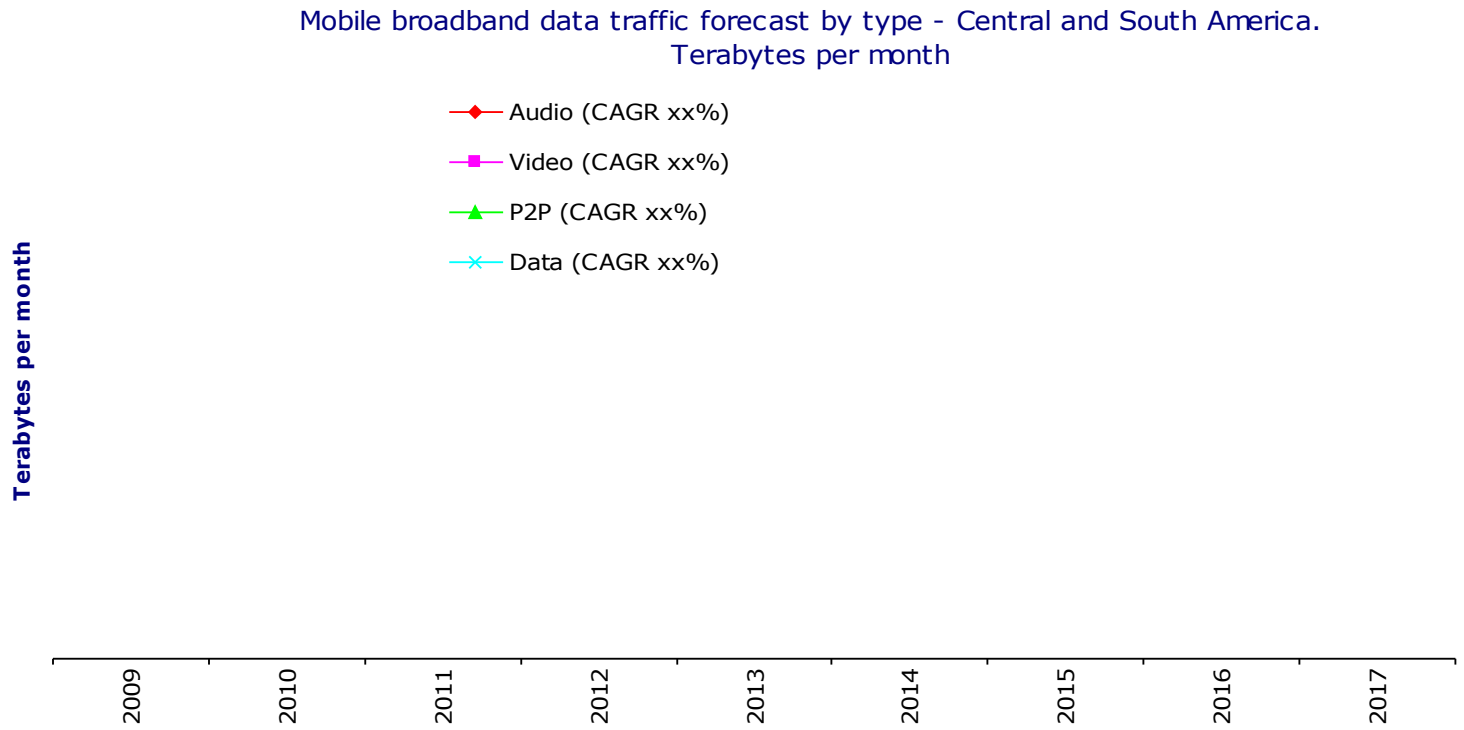
Central and South America mobile broadband traffic forecast – 2009-2017

- Commentary



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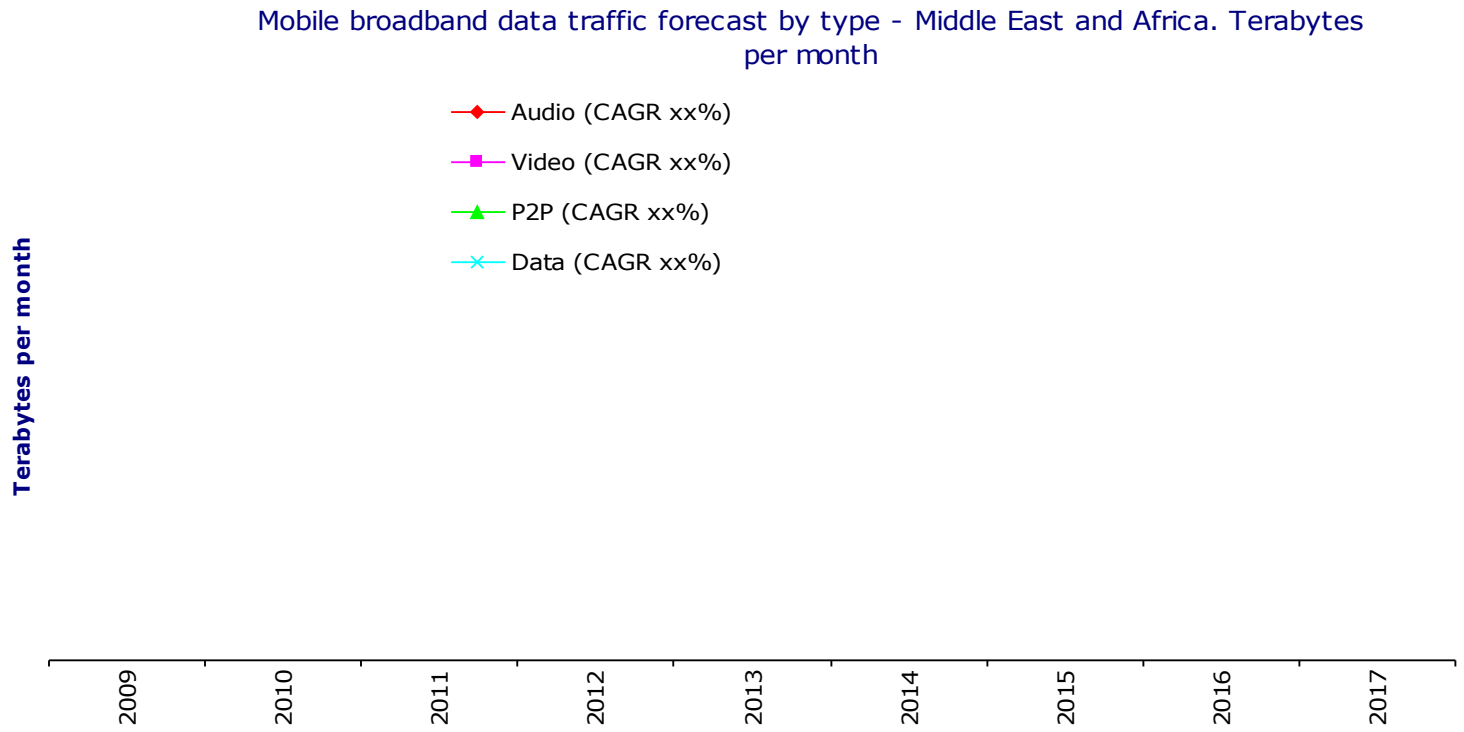
Middle East and Africa mobile broadband traffic forecast – 2009-2017

- Commentary



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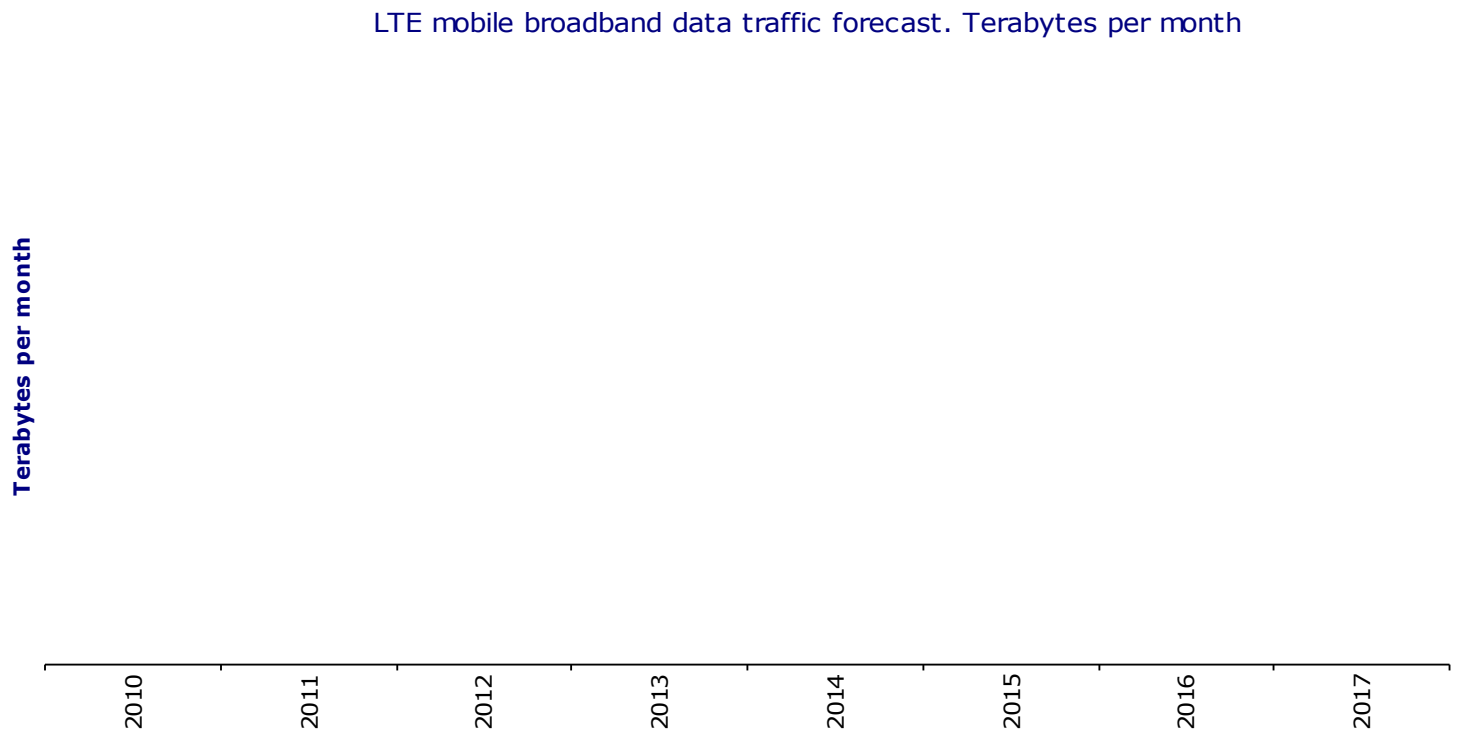
Mobile broadband LTE forecasts

Worldwide LTE mobile broadband traffic forecast – 2010-2017

- Commentary



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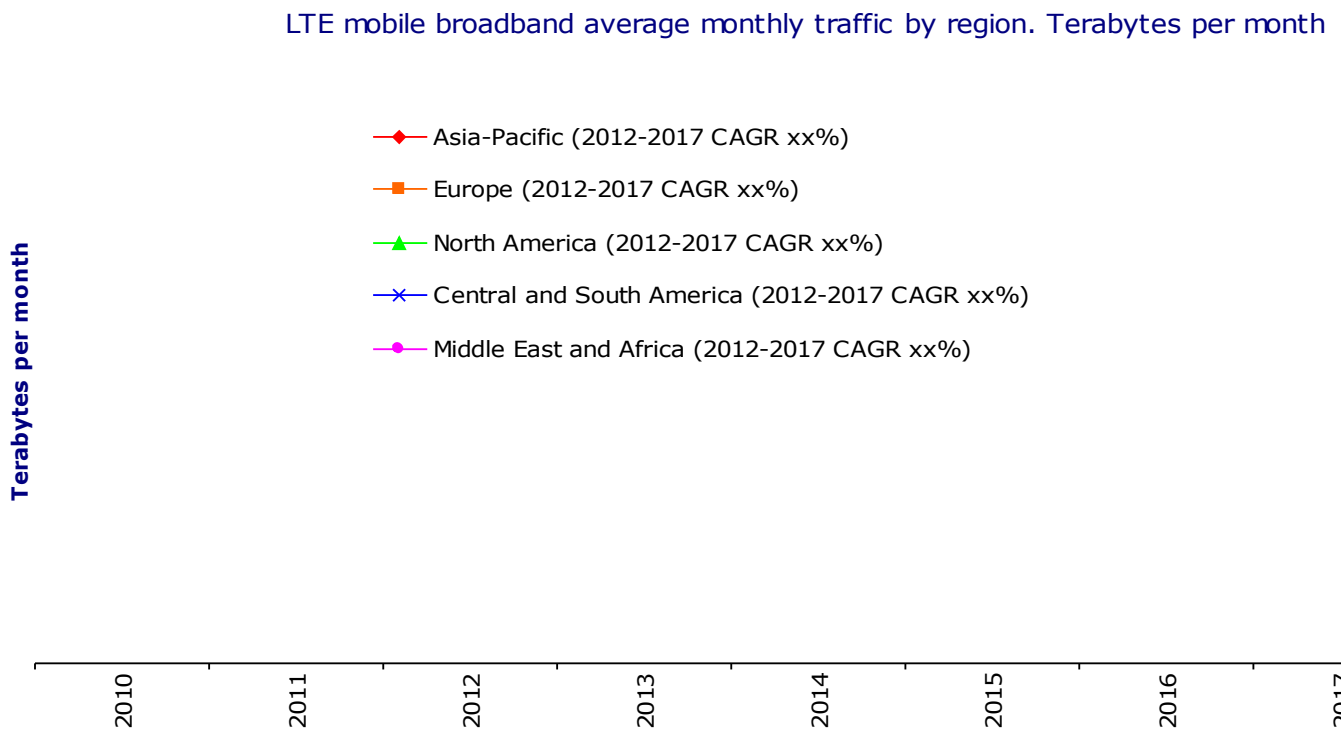
Regional LTE mobile broadband traffic forecast – 2010-2017

- Commentary



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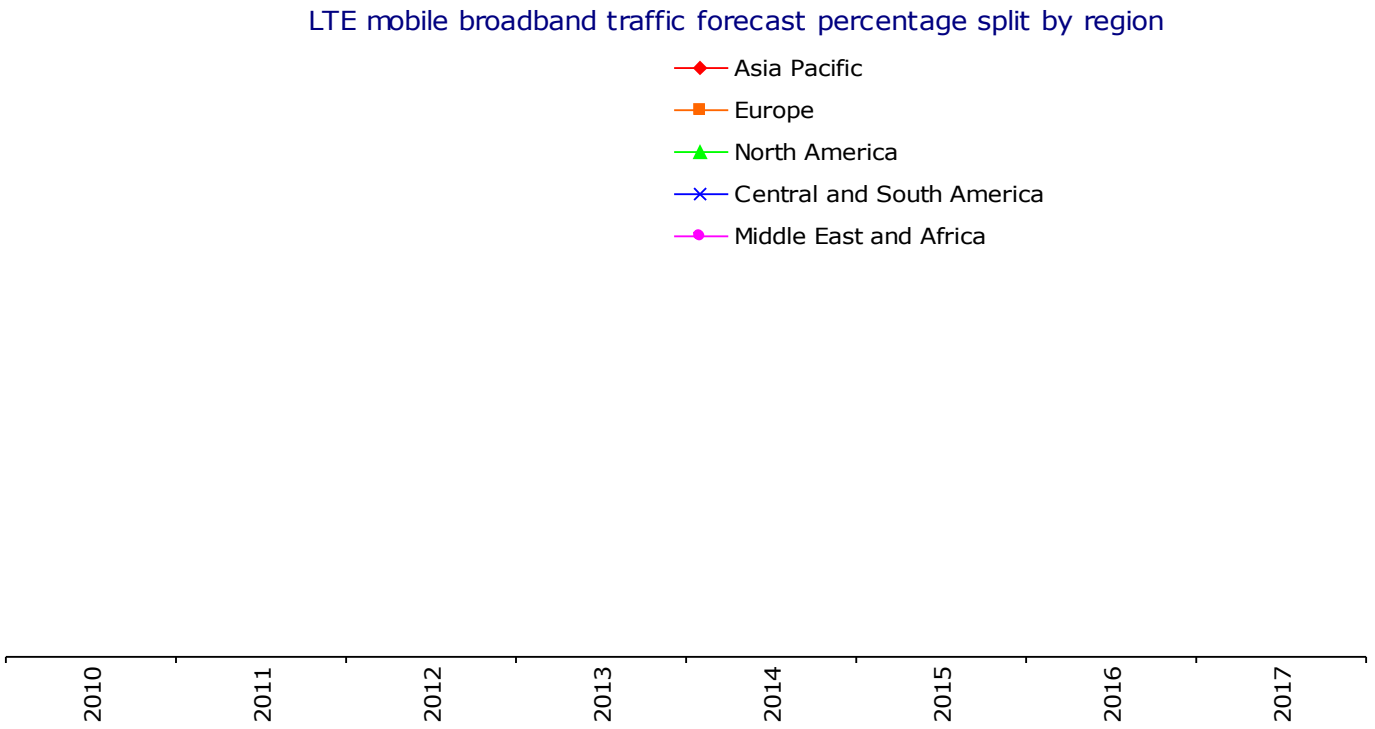
Regional LTE mobile broadband traffic forecast percentage split – 2010-2017

- Commentary



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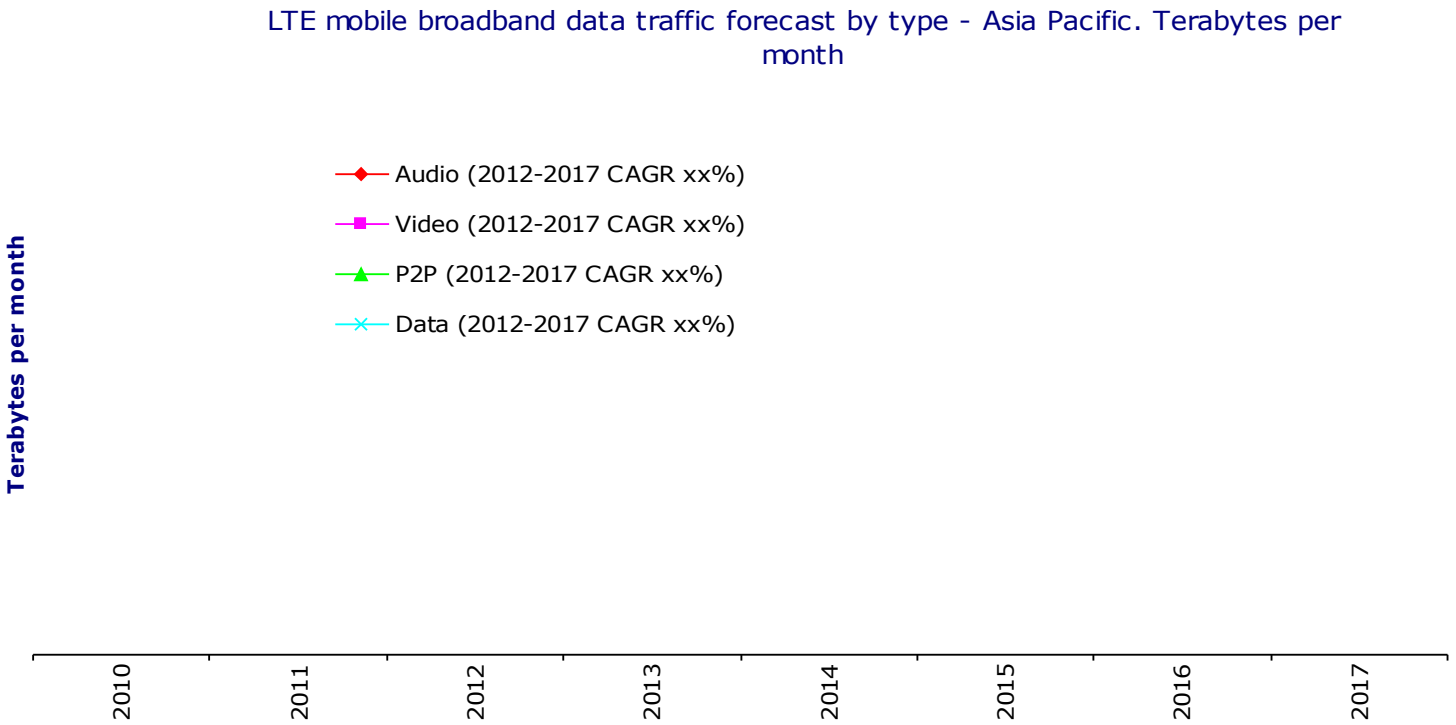
Asia Pacific LTE mobile broadband traffic forecast – 2010-2017

- Commentary



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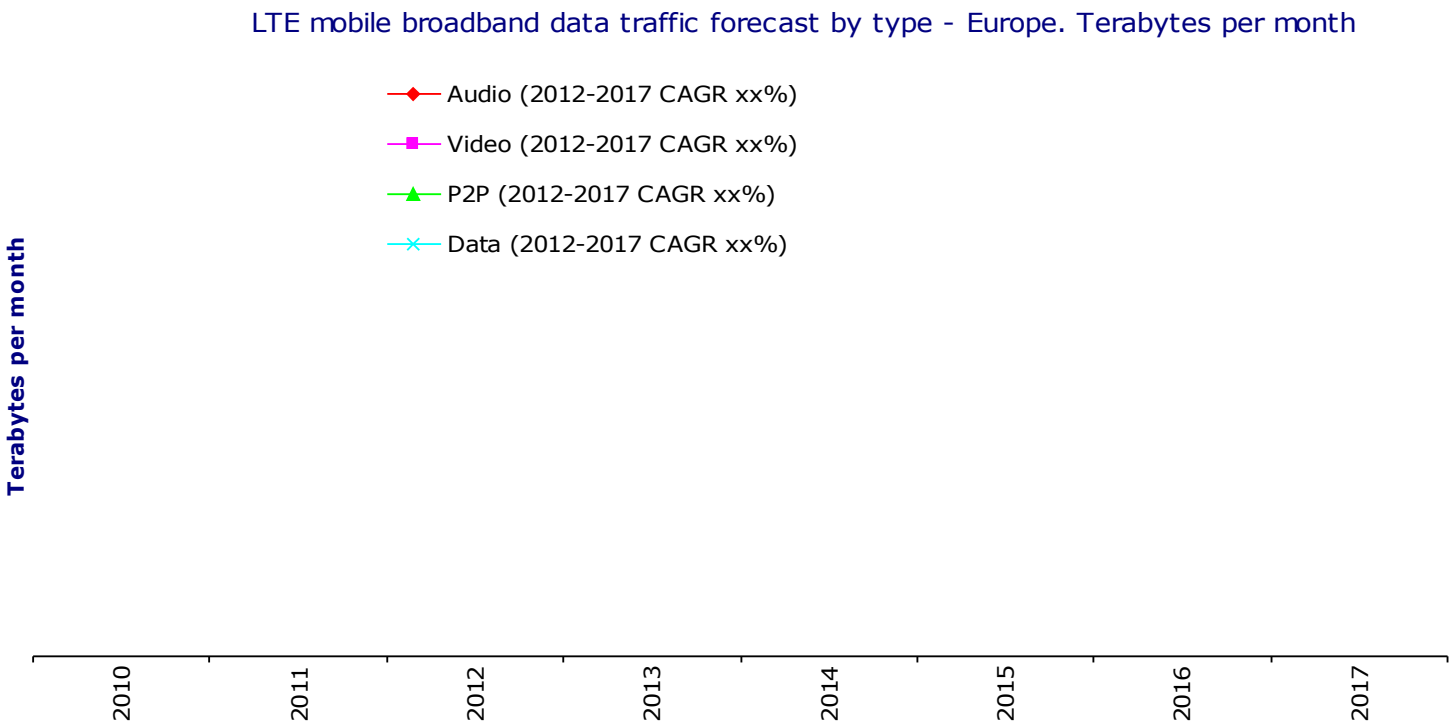
Europe LTE mobile broadband traffic forecast – 2010-2017

- Commentary



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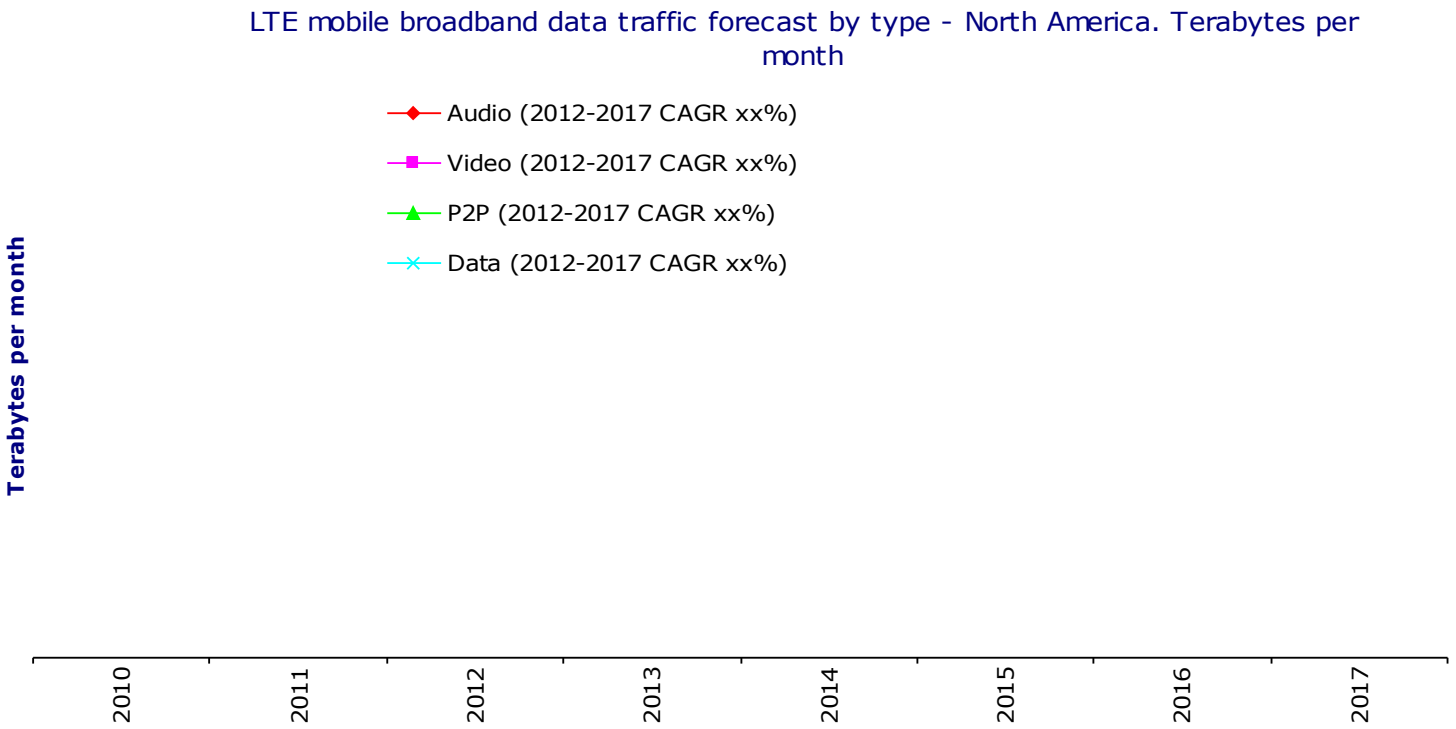
North America LTE mobile broadband traffic forecast – 2010-2017

- Commentary



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Central and South America LTE mobile broadband traffic forecast – 2010-2017

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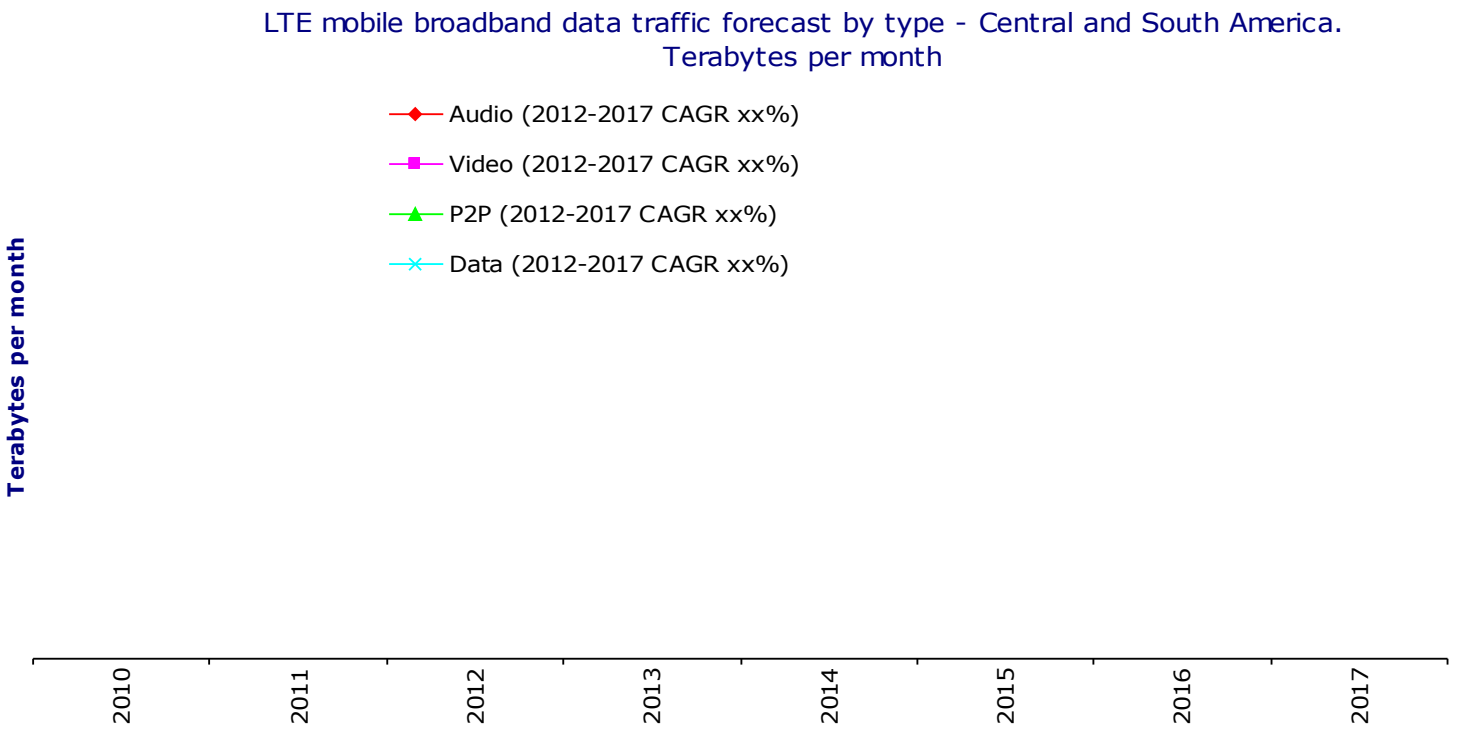

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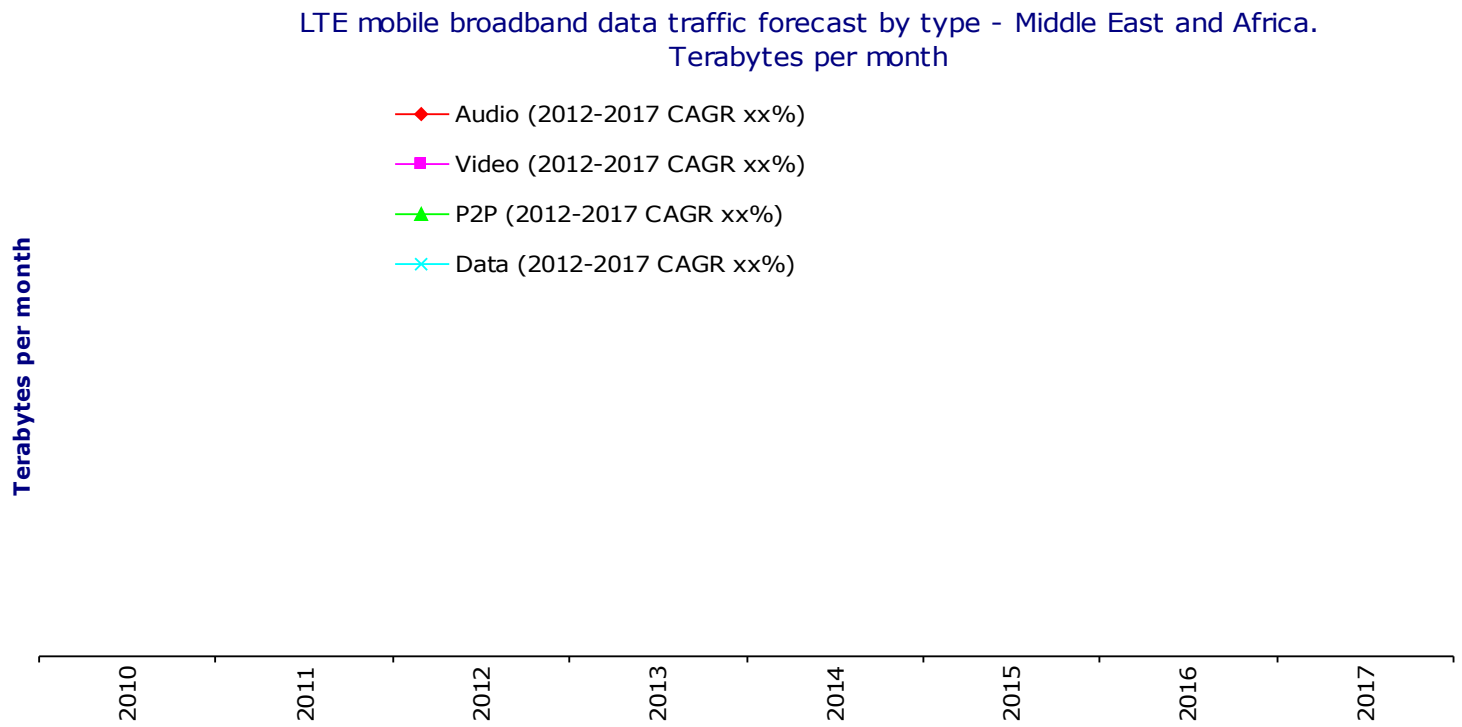
Middle East and Africa LTE mobile broadband traffic forecast – 2010-2017

- Commentary



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Appendices

Worldwide mobile broadband traffic forecast by region – 2009-2017

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Worldwide mobile broadband traffic forecast by type – 2009-2017

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Mobile broadband traffic forecast percentage split by type and region – 2009-2017

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Mobile broadband traffic forecast by region – 2009-2017

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Mobile broadband traffic forecast by region – 2009-2017

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Worldwide and regional LTE mobile broadband traffic forecast – 2010-2017

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Worldwide and regional LTE mobile broadband traffic forecast by type – 2010-2017

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