CAMIANT

LEADER IN REAL-TIME POLICY CONTROL

The Network Can Help

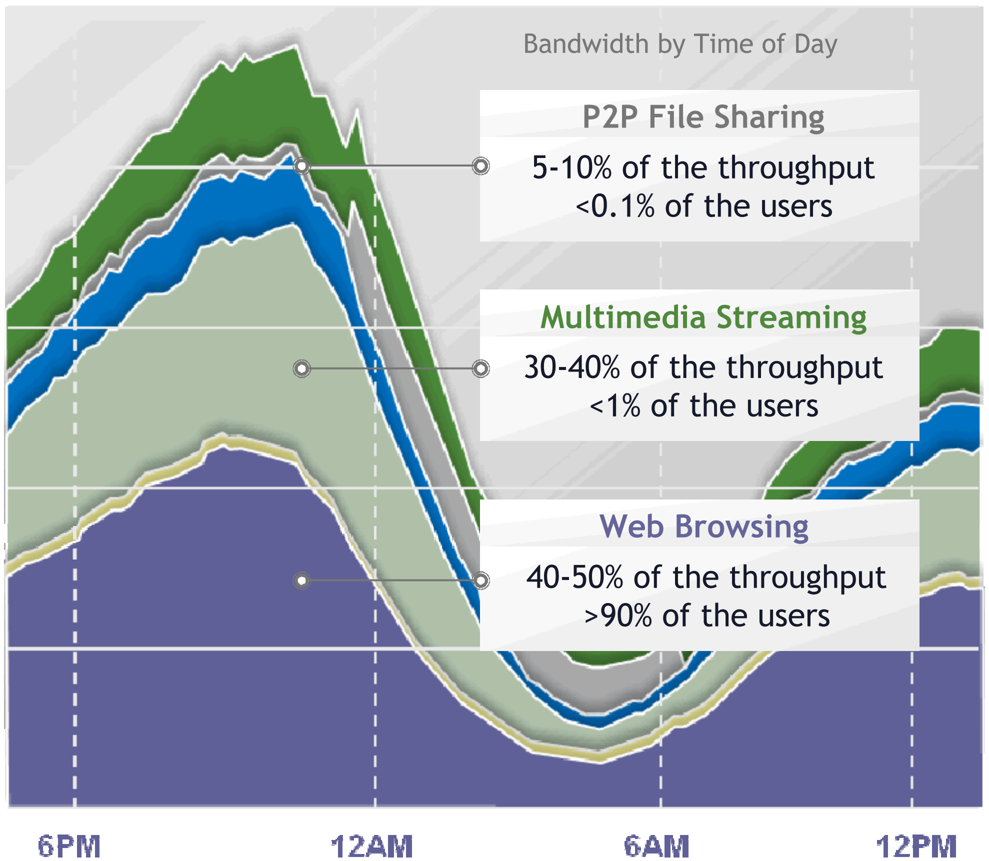
January 2010

Camiant Overview

Start	Launched in 2003
Focus	Real Time Policy Control of Broadband Applications, Subscribers and Network for Revenue Generation and Cost Containment
Market Leader	More than Thirty Fixed & Mobile Customers Around the World
Offices	**HQ:** Marlborough, MA USA **R&D:** Marlborough, MA & Nanjing, China **Sales & Service:** UK, Spain, Germany, Australia
Partners	Established Global Channels, 30+ Leading Integration Partners
Investors	Matrix Partners, North Bridge Venture Partners, Pilot House Ventures

Traffic: Under the Covers

Subscriber, Time of Day, Application, Location



Sources: Bytemobile, May 2009

Peak Demand Drives Network Cost

Certain Users & Applications Dominate Traffic, Although Not As Much at Peak

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Applications & User Preferences: Under the Covers

	RANKING						
Application Category	Most Important	Second	Third	Fourth	Fifth	Sixth	Least Important
Personal or Corporate Email	59%	9%	4%	4%	1%	2%	1%
Web browsing (searches, news sites, location information, etc.)	16%	44%	16%	4%	4%	3%	1%
Social networking sites (such as Facebook)	3%	8%	16%	17%	17%	16%	26%
Video viewing and downloading	0%	4%	17%	18%	20%	23%	19%
Instant messaging	7%	12%	19%	18%	20%	11%	11%
Voice services (such as Skype)	9%	12%	15%	20%	16%	19%	17%
Streaming audio (such as Spotify, Last.fm, Internet radio)	5%	10%	14%	19%	20%	28%	27%

Consumers Place Wide Variety of Value on Different Applications

Different Applications Require Varying Network Performance to Work Reliably

Sources: Camiant, Nov, 2009

Mobile Broadband Business Case

Equities

Economics of mobile broadband
A financial market perspective

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- **Mobile broadband, the only bright spot in European mobiles**
  - European mobile revenues are now declining
  - Non-SMS data adds ~2% to growth
  - Smartphones & dongles: two drivers of similar size
- **Business model: good for now, but how sustainable?**
  - Mobile broadband currently brings higher margins
  - Reassuring capex conclusions in "linear" traffic scenario
  - Network overload in 3-4 years in "exponential" scenario
- **Exploring solutions for the new world**
  - WiFi offload and fixed-mobile integration
  - Local consolidation?
  - Pan-European consolidation?

Source: Antoine Pradayol, BNP Parisbas, Sept 2009

Mobile Broadband Business Case

Equities

2. Business model
Core scenario: capex seems under control

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- **Recent data points look reassuring**
  - Vodafone Europe doubled network capacity last year with capex/sales of ~10%
  - European mobile capex/sales flat at 12-13% since a few years
- **Operators repeat they still have many "cheap" options…**
  - Switch-on more frequencies, HSPA upgrades, cell splitting, spectrum refarming
  - …before switching to more expensive options (new spectrum, LTE)
- **In our core scenario, current capex levels seem sustainable**
  - Mobile data traffic expected x10-15 from 2009e to 2015e
    - Assuming linear growth in traffic per device (circa x4 by 2015e)
  - Total capacity in service in the country x8 assuming:
    - Number of node Bs x 1.5 in dense areas, x2.5 in the country (coverage expansion)
    - Capacity per node B x 3-4 thanks to HSPA upgrades & carrier switch-on
  - Budget < EUR1bn capex per year over 2010-2015e

Source: Antoine Pradayol, BNP Parisbas, Sept 2009

Mobile Broadband: Where Are We?

Growth Engine, But Uncertain Long-Term Capex/Sales Business Case

Controlling Peak Demand is Key

Value, Cost and Required Network Performance of Different Applications Vary

Let's Look at Potential Impact of Certain Proposed Rules in NPRM

Unintended Consequences of NPRM on Mobile Broadband

Non-Discrimination – Would Disallow These Potential Services

- New mobile app could offer an enhanced experience and free usage to attract consumer attention
- Special mobile device maker could sponsor assured videoconferencing
- Movie studio could deliver HD streaming video with low latency to assure pleasurable viewing experience
- Mobile provider could offer a discounted “low-priority” service plan that has high bandwidth cap but low network priority for certain applications

Managed Services – Would Disallow OneVoice Architecture over LTE

- VoIP delivery for carrier voice service over LTE

Unintended Consequences of NPRM on Mobile Broadband

Network Management – Would Disallow T-Mobile UK-like Fair Use Policies

	Mobile Broadband Plus	Mobile Broadband Extra	Pay per day
You pay	£15/month	£30/month	£2/day
FREE USB Modem stick	Yes	Yes	Prices start from £24.46
Unlimited internet*	Yes	Yes	Yes
Great for	Basic surfing, emails, YouTube, iPlayer	Basic surfing, emails, YouTube, iPlayer and calling services like skype	Basic surfing, emails, YouTube, iPlayer

*Subject to fair use amount

Surf all you want. With any Mobile Broadband plan, you buy a day, a week or a month's use and never pay a penny more.

What does unlimited browsing mean?

Browsing means looking at websites and checking your email, but not watching videos or downloading files. We do have a fair use policy but ours means that you'll always be able to browse the internet, it's only when you go over your fair use amount that, during peak times, you won't be able to download, stream or watch video clips.

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Mobile Broadband is the Growth Engine for Mobile Operators in Mature Markets like US

Business Case to Sustain Network Growth is Not Assured

Allowing Network Discrimination Can Maximize Customer Choice

- “Sponsored” premium usage
- Lower priority service for lower cost
- Application discriminating rate plans
- Managed services
- Utilization of discrimination in network management