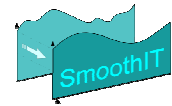


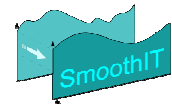
Expected Evolution of Users behaviour

María Ángeles Callejo Rodríguez



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Modelling End Users' Internet behaviour



- n **Generation X:**
- n Web and e-Mail applications from a PC
- n **Generation Y (born in 80s and 90s):**
- n all day connected → **ubiquity, reliability**
- n **Connectivity is the key**
- n **New Generation born in the 21st century?**
- n Used to continuous changes → change is common
→ early adopters for new applications
- n More knowledge about technology and communications
→ ready to use advanced network services?

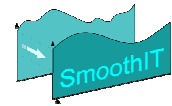
Future Internet connectivity

- New traffic demands
- Reliability
- Ubiquity
- Security
- Flexibility
- Openness
- Neutral
- Fairness
- Advanced Network Services

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Internet Traffic Analysis and Predictions



n **2005 predictions: traffic will grow up 100-300% per year**

n **2007 data:**

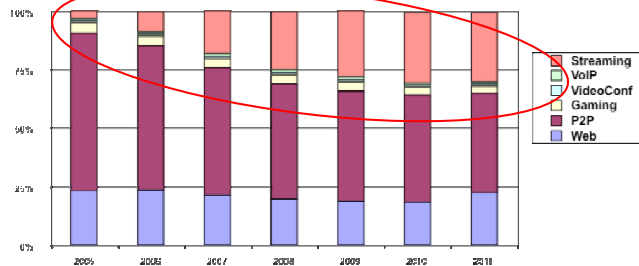
- MINTS 2007 → **traffic is growing up 50-60%**
- Cisco 2007 data:
 - **traffic is growing at 60% per year**
 - **near future (up to 2011) 50-60% per year**

Thinking on the Future...

- Main components of Internet traffic?
- How expected to evolve?
- ... But first, we need to estimate the near future



Important component of Non Best Effort traffic

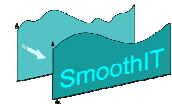


Source: "Global IP Traffic Forecast and Methodology", 2006-2011, Cisco 2008

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What are the Future Internet expectations?



n **Users' behaviour is hard to predict, but:**

- **They will be connected any time from different devices**
→ Connectivity Perceived Value increases
- **They will ask for different applications with different traffic profiles**
→ The network must be able to manage all apps with guarantees

n **Reliability and guarantees are required** to manage some services (e.g. emergency calls, corporate services, e-health, etc.)

n **No place for walled gardens**

- **None of the most popular Internet applications share the same Application protocol**
- **IMS, AMS, what is the next one?**

By 2015 an innovation friendly framework to support changes in demands:

- **Higher capacities** in wired and wireless
- **Guaranteed network performance** (overlay apps, 3D contents)
- **Open network interfaces** to allow users to show their preferences

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