

#### FACILITY FOR LARGE-SCALE ADAPTIVE MEDIA EXPERIMENTATION

## **FLAME** and the Network Operators

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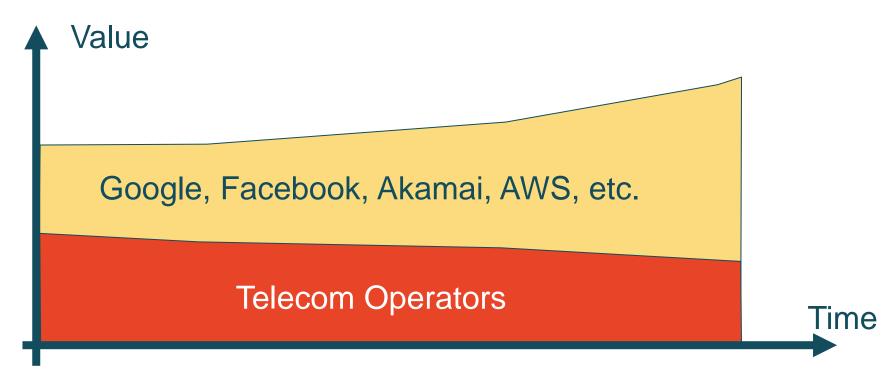
#### What makes a network operator.. a network opeator



- Classical view of what a network operator is:
  - Fiber, copper, radio links, satellites, etc.
  - Switches, Routers and network devices
  - BSS/OSS systems, AAA, etc...
  - Selling Internet Access, VoIP and classical services
- The new network operators:
  - Sell devices
  - TV or video on demand content.
  - ...other services that can run on the infrastructure
- Challenge: where do I get more revenues?

#### The market – where is the value?





#### The 5G opportunity/challenge for network operators



- The 5G promise to network operators: you can change the rules of the internet market
- Edge computing: a new model to distribute content, closer to the end user, faster...
- Do I need new services or the same service running faster/cheaper?
  - Create new added value services.
  - Network slicing: rent the infrastructure to other companies
- Should I run build my own infrastructure to run my services or should I rent the infrastructure (slicing)?
- Each operator should find its answer, there is not unique answer

### The FLAME opportunity – real testbeds





Radio Devices

Switching Capabilities

Power

Server (CPU, Storage, etc.)





# The FLAME opportunity... even beyond the FLAME project



- An opportunity to start your experiments without an infrastructure
- You can focus on the real nature of your idea without caring of the infrastructure (for now...)
- Performances similar to what you could obtain if you build your own network, i.e. dedicated hardware
- Skilled engineers (not just network engineers) who can help you on troubleshooting

#### **Conclusions**



- 5G is an opportunity for network operators to build new services and think about new business models
- For small/medium operators: start thinking on how edge computing and 5G can be implemented in your infrastructure or hosted/integrated on other operators
- Before starting any new investment consider using existing infrastructures: cheaper, faster and simpler.
- Impact on the national regulatory bodies: still not clear what could be a wholesale model on large infrastructures



# **Questions and Answers**