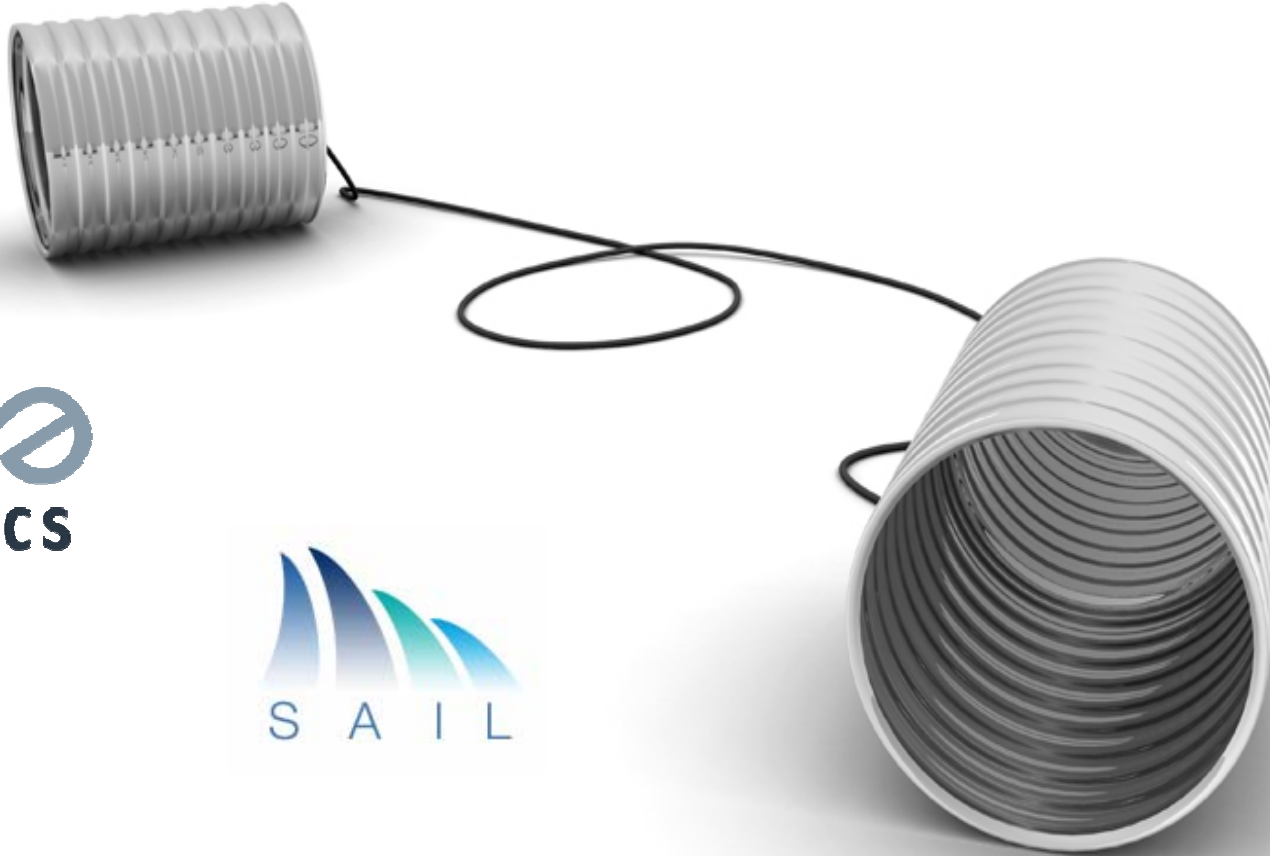


# III.1 The Network Lost in the Cloud?

Future Internet Assembly, Budapest, 18th May 2011



Chairs:

N. Le Sauze, ALU Bell Labs France

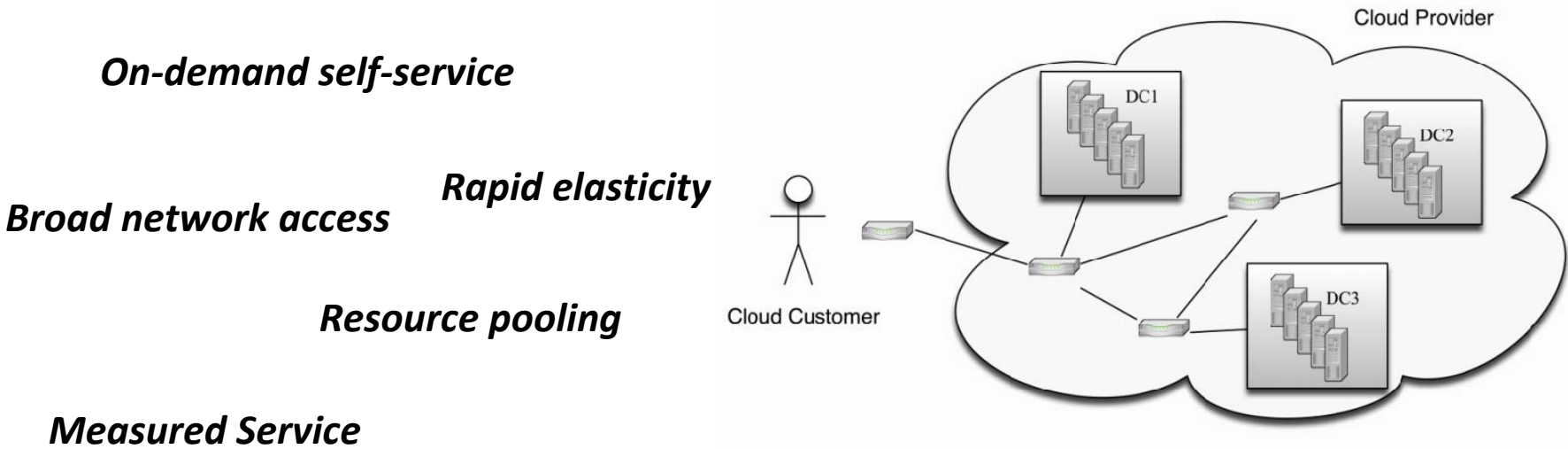
M. Brunner, NEC Europe



# Early Definition

Cloud computing is a model for enabling

- ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services)
- that can be rapidly provisioned and released with minimal management effort or service provider interaction.



Source: NIST

# Session objectives

- Cloud objective is resource sharing for elastic usages
  - Variety of resources: mainly Network & IT
  - Variety of actors: Users, Service providers, IT infrastructure owners, Network infrastructure owners
    - Some actors may play different roles
- A lot of progresses on Cloud Computing and dynamic IT resource management
- A global trend has been to forget about the network, connecting IT resources/Data Centres
  - Now, starting to change with Cloud Networking or Networked Cloud concepts

# What we are discussing

- What is the place of the **network** in cloud services?
- How to achieve global, end-to-end service assurance in the cloud age?
- What are the specific inter-cloud issues?
- What possible business models and revenue sharing models between the actors?
  - What is the level of trust/Service Level Agreements (SLA) required between these actors to assure a wide adoption of Cloud Services?

- “Opportunities and requirements from over the top SMEs providing cloud services: the example of HPC”  
Alban Schmutz
- “How are Service Providers helping their customers to deliver IT as a Service?”  
Peter Glock
- “Cloud connectivity, interconnect and SLAs - From a network perspective”  
Håkon Lonsethagen
- “Building a distributed cloud infrastructure from the bottom: the SAIL approach to cloud networking”  
Victor Souza
- “The revolution of infrastructure provisioning”  
Pascale Vicat-Blanc



# Panel Discussions, Some questions

- Business models:
  - Per-usage payment is so far mainly envisaged. Is it the only model? In broadband flat rate models got very popular.
- What about other kinds of resources?
  - More soft resources like knowledge and information sharing and their roles in the cloud?
- What about neutrality/openness?
  - So far, the discussions are focusing on the network side only, but should we extend to the “Cloud Neutrality” covering both IT and network resource sharing or access barriers?
- How flexible is the cloud model to incorporate IT and Network services from various actors?
  - It must rely on trusted actors with some guarantees to deliver what has been promised, but should remain open to any new third party.