

## Session 4: MULTIMEDIA issues

## Role of satellites in S+A MM delivery (1):

- Satellites are providing transport and switching/router functions
- Several network configurations:
  - "stand alone" (network based only on satellites)
  - "hybrid" (combined with other networks, like ISDN, GSM,...)
  - "integrated" (part of the "connection" is established over satellites)
  - NB: in almost all cases there is an interface to another network!
- Protocol evolution towards IP



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## Role of satellites in S+A MM delivery (2):

- Satellites are suitable to support all types of services like:
  - broadcasting type (R+TV distribution)
  - retrieval type (client-server architecture)
  - communication type (VoiP, VCS, VPS,..)
- Services offer is moving from the traditional S+A market (e.g. broadcasting, data, voice) towards MM S+A, targeting the same Services and Customers as the Telco and IT communities (convergence!)
- Customers are interested in service facilities, performances, prices, man/machine interface not in the underlying technologies



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## S+A MM delivery over satellites:

- Standardisation from the Service viewpoint:
  - -Objectives are interworking, interoperability, service evolution, etc...

#### or

- Seamless provision of services to the users (incl. QoS)
- Common set of service facilities (service profile)
- Compatibility of terminals
- Service evolution independent from the network
- Economy of scale

- ....



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#### S+A MM delivery over satellites:

- What should be standardised:
  - S+A issues [lead ITU-T/SG16]:
    - Services description and models
    - Service profiles
    - Service delivery architecture end-to-end
    - Open Service Architecture (NGN)
  - QoS issues [lead ITU-T/SG12]:
    - definition of QoS classes (incl. video)
    - management of delay in a connection
  - Other issues [lead ITU-R, ITU-T SG13]:
    - Payload (RF Interface)