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# 3GPP ”All-IP” vision

## *Long and short term*

- What do we want to obtain ?
- How to get there (phasing) ?
- What do 3GPP need to do ?
- Issues to be resolved

# What do we want to obtain ?

- Establishment of a flexible service creation environment
- Quick Service/Application creation
  - APIs to allow for third party applications
  - Gain from Internet Services
  - Gain from Intranet Services
  - Utilisation of Toolkits
- Real time including Multimedia services
- Scalability

# What do we want to obtain ?

- Independence of access type
  - Seamless services
  - Common Services development
  - Commonality between private and public networks
  - Potential for fixed mobile convergence
- Separation of Services, Control and Transport when beneficial
- Integrated O&M
- Leverage IP technology cost factor without compromising quality or performance

# What do we want to obtain ?

- Open interfaces to ensure a multi-vendor environment
- At least same level of security as in state of the art mobile networks
- At least same level QoS as in state of the art mobile networks
- Respect spectrum efficiency
- Voice services, and other relevant legacy services

# What do we want to obtain ?

- Maintain and enhance Global Roaming
- Minimise the number of options in the standard

# How to get there ?

- Hybrid CS and PS network will exist in the next release(s)
  - Real time multimedia services in PS domain
    - Streaming
    - Service control
    - Multimedia call control model
- Ensure backward compatibilty
  - Service continuity – for relevant services
  - Roaming between different releases of 2G and 3G
  - Define relevant handover between releases of 2G and 3G

# How to get there ?

- Service ”transparency” across domains for common services
  - Ensure roaming across domains
  - Enable service creation across domains
  - Establish common service environment across domains
- Enhance support for VHE, OSA and Toolkits

# How to get there ?

- Study and implement separation of service, control and transport
- Enable IP transport (Interfaces to be decided)
- Enable signalling over IP
  - Enable MAP over IP
- Ensure sufficient address space
- Support for charging and billing

# What do 3GPP need to do ?

- Establishment of workplan for in R00
  - Identification of content of in R00
    - Including enhancements to CS and PS domain
  - Covering all of TSGs
- Establishment of detailed requirements
- Establishment of longer term architecture as part of R00
- Detailed specification in TSGs and WGs

# What do 3GPP need to do ?

- Identify potential reuse of work of other bodies
- Co-operate with other bodies
  - IETF – Action required !
  - ITU
- Other groups with similar interest
  - MWIF, 3G-IP, 3GPP2, .....

# Issues to be resolved

- Which Mobility Management model(s)
- Which Call Control model (H.323, SIP, H248, ... ?)
- Study enhancement to GTP tunneling to harmonise with mobile IP and IPv6 mobility
- IP version to use – IPv6 ?
- How to migrate to IPv6 ?

# Issues to be resolved

- Where to use IP transport ?
  - Core network
  - Iu interface
  - UTRAN
  - Uu Interface
- Requirements for naming and addressing