

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 compatibility
 - 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