



SEA: SEAmless content delivery

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NAVS Concertation Meeting
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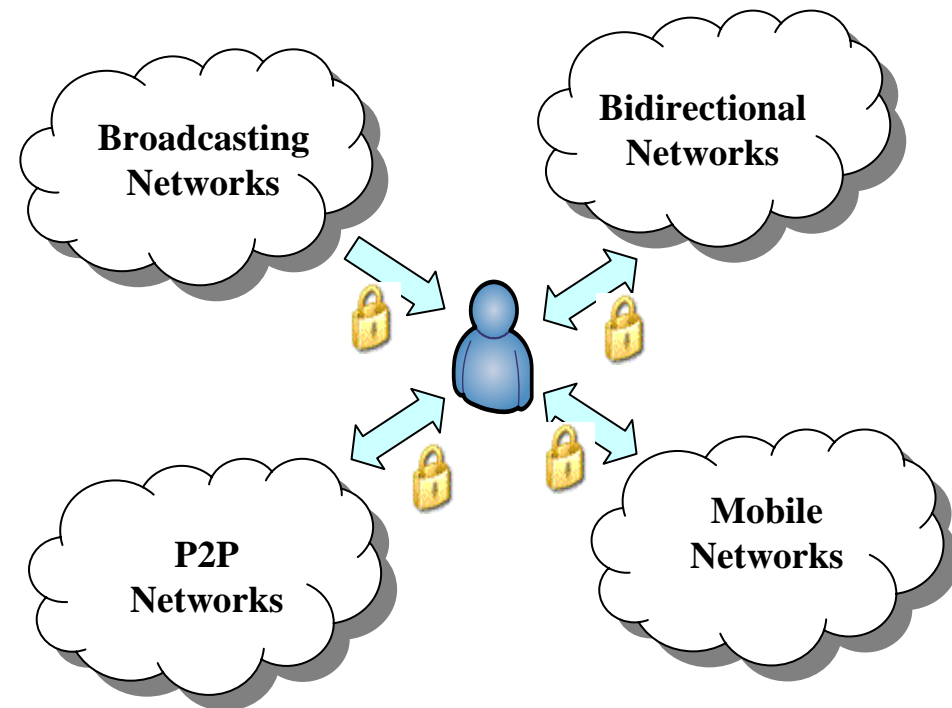


What is SEA

SEA is focused on seamless, personalised, trusted and PQoS-optimised multimedia content delivery, across broadband networks, varying from broadband broadcasting to P2P topologies

Within SEA everyone can be:

- Content Producer/Provider
- Content Mediator
- Content Consumer





Who is SEA



- STMicroelectronics I Industry
- Synelxis Solutions GR SME
- Thomson FR Industry
- Philips NL Industry
- Vodafone GR Operator
- Nomor Research DE SME
- Fraunhofer HHI DE Research Institute
- POLITO I University
- UPM ES University
- UCLA USA University*

* All UCLA resources will be covered by US funded research programs. No claims will be made towards EC

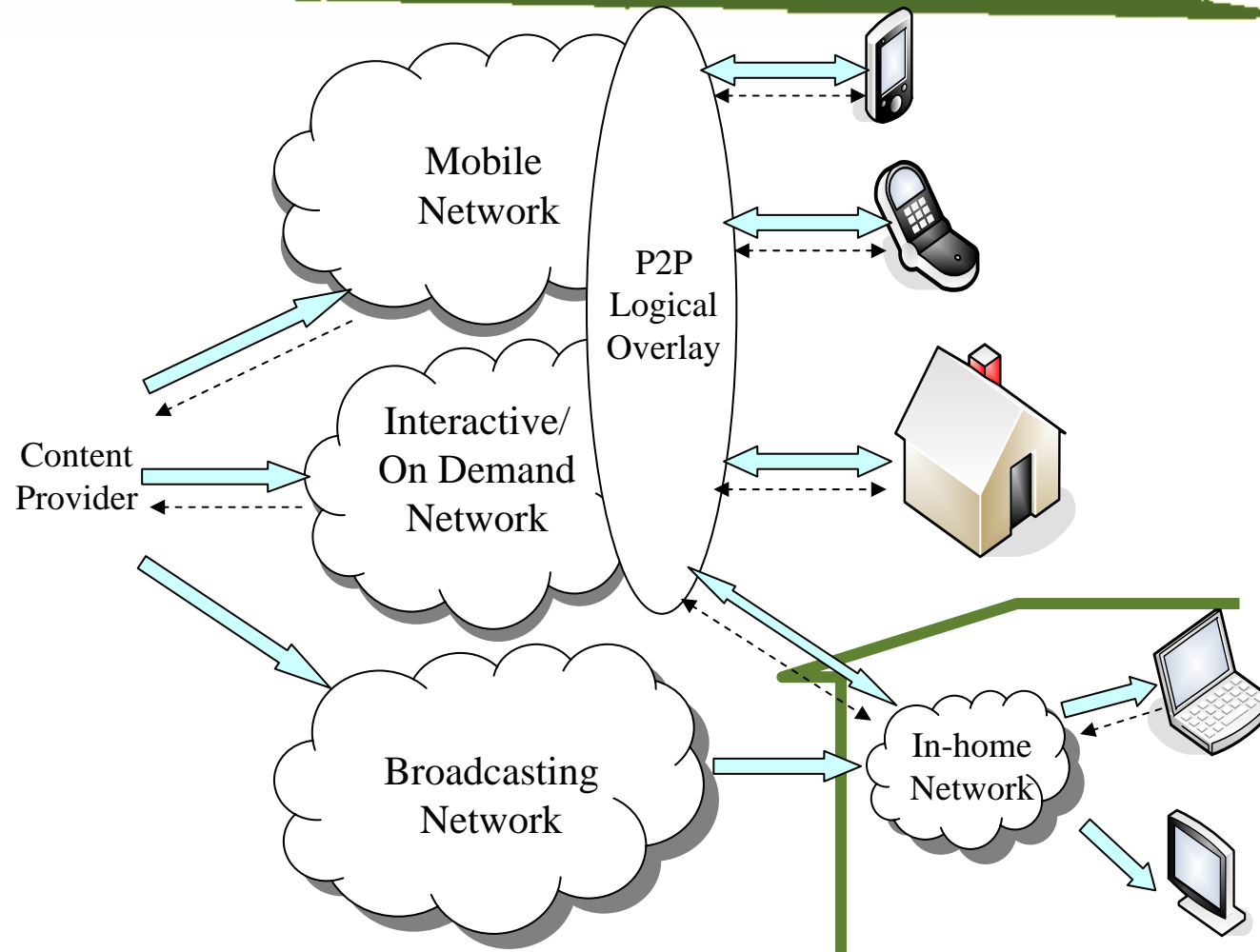


SEA Innovation Pillars

- **Multi-layered/Multi-viewed/Multi-description content coding**
 - H.264 SVC (Scalable Video Coding): Layered temporal/spatial/quality scalability
 - H.264 MVC (Multi View Coding): Different views embedded in a single video stream
 - MDC (Multiple Description Coding): Inherited resilience
- **Multi-source/Multi-network streaming & adaptation**
 - **Enriched PQoS** by on-the fly **content adaptation** and **dynamic reconstruction** of different layers (SVC), views (MVC) and representations (MDC) of the same resource transmitted from multiple sources (servers/P2P) and/or received over multiple diverse paths.
 - New equipment in the network (Nentwork Media Gateways) and at home (Home Media Gateways) will offer **cross-network adaptation** and **cross-layer optimisation**.
- **P2P video streaming**
 - Peer retrieval optimization (exploiting proper cross layer parameters),
 - Proper coding techniques (e.g. to limit the traffic and delays due to buffer map exchange)
 - Optimization of the visual quality via exploitation of advanced source coding techniques
- **Content Protection and lightweight asset management**
 - Cover not only the legacy content creation chain, but also the private multimedia content, which may be soon the major content category.

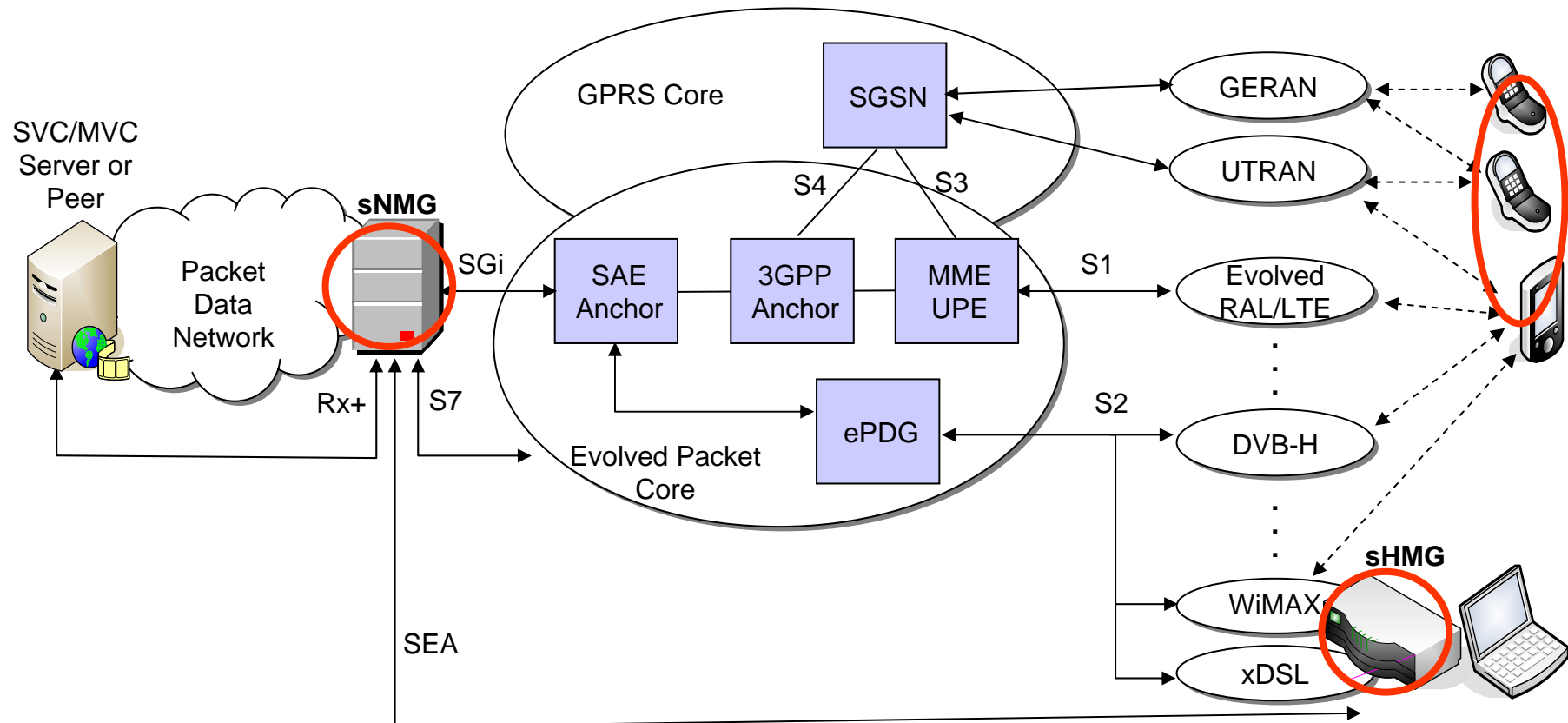


SEA Logical Architecture



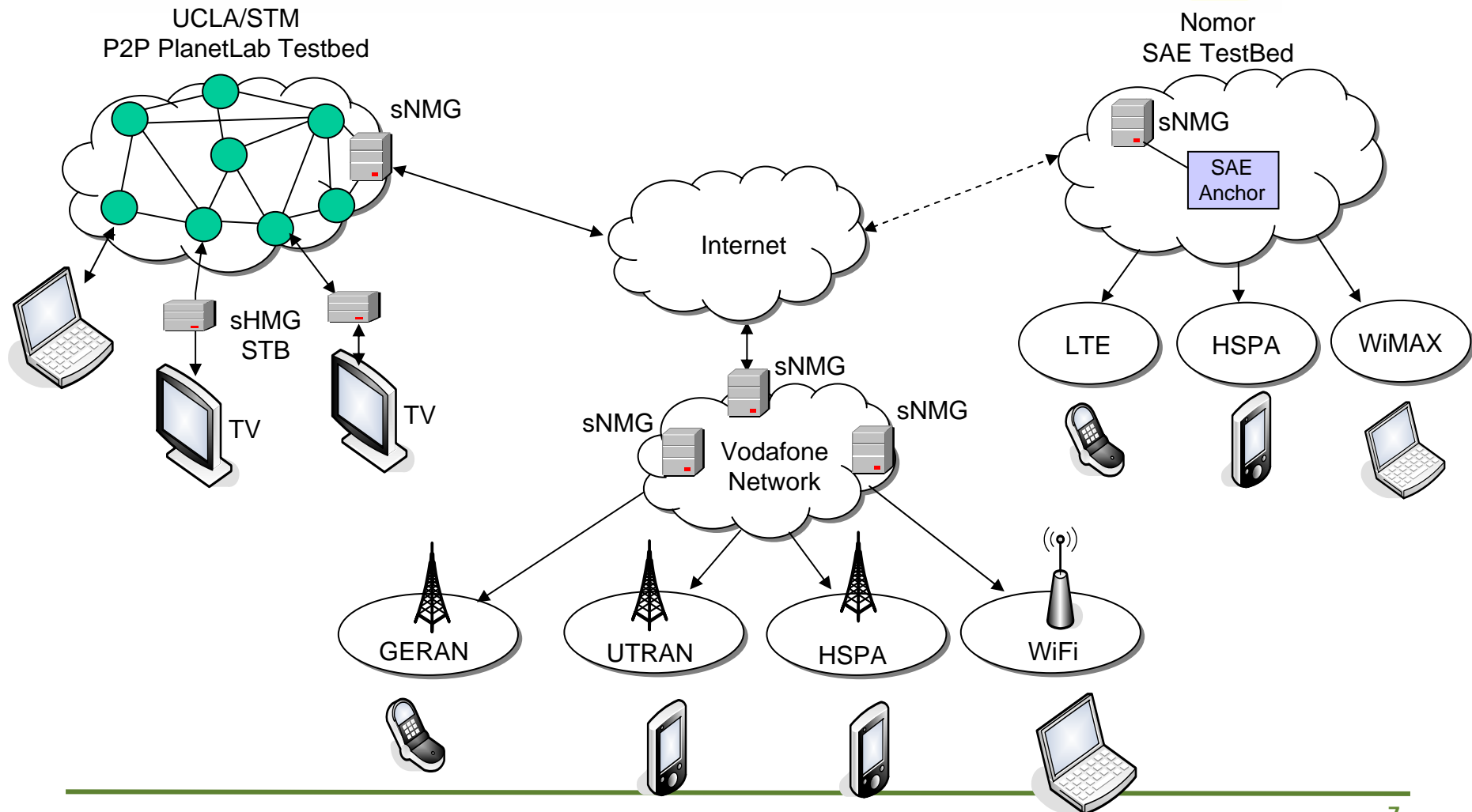


SEA/3GPP SAE Network Architecture



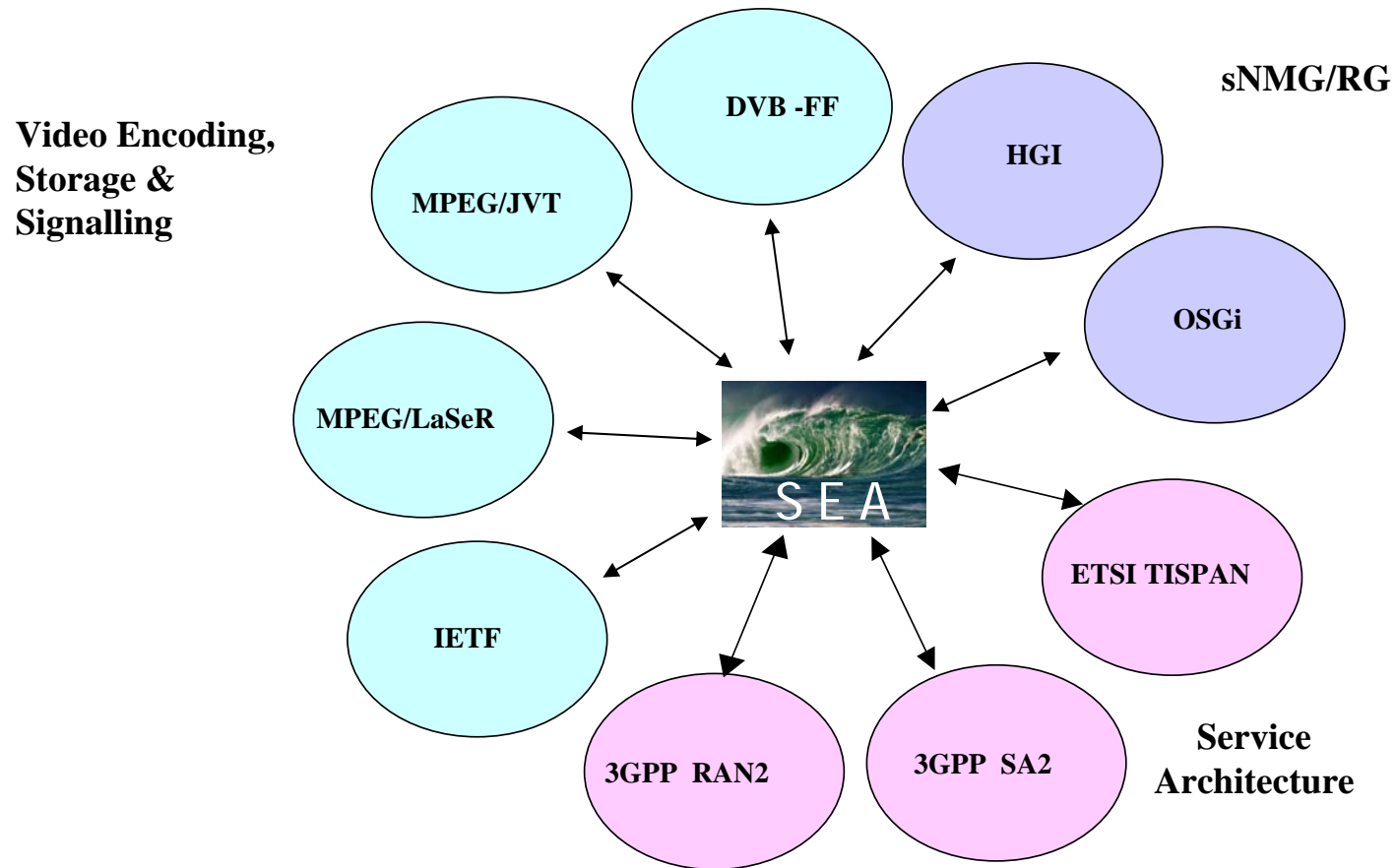


SEA testbed





SEA plans to contribute





Thank you

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