

BT *wireless* Technology Roadmap

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June 2001

Outline

- **BT wireless High Level Roadmap**
- **Why IP for Mobile Operators**
- **Network Evolution**
- **Network & Access Convergence**
- **Network and Service Convergence**

BT wireless Architecture -

High Level Roadmap

GPRS

- “Optimise” current GSM & GPRS implementations today
 - New services & applications being launched with GPRS

3G R3

- Launch 3G networks starting in 2002
 - New revenues due to large number of new services & applications
 - Cost reduction due to use of ATM technologies, replacing TDM

3G R4

3G R5

3G R6

- All-IP network capabilities in “evolution” phases, starting in 2004
 - Significant number of new services & applications based on real-time IP, such as mobile multimedia over IP
 - Significant cost reductions due to use of IP technologies all over the networks

All roads lead to IP

!

Major Paradigm Shifts

- **Wireless world and IP World are converging**
 - Move to All-IP mobile networks
 - Significant changes to everything, from devices to IT systems
- **We want to go up the value chain and offer mobile multimedia services**
 - No more voice-only or bit-pipe scenarios
 - Finding the compelling applications and retaining the value are major challenges
- **Regional / Global networks and services**
 - Voice roaming was easy!
 - How about location-based, personalised m-commerce service offered on a pan-European basis!

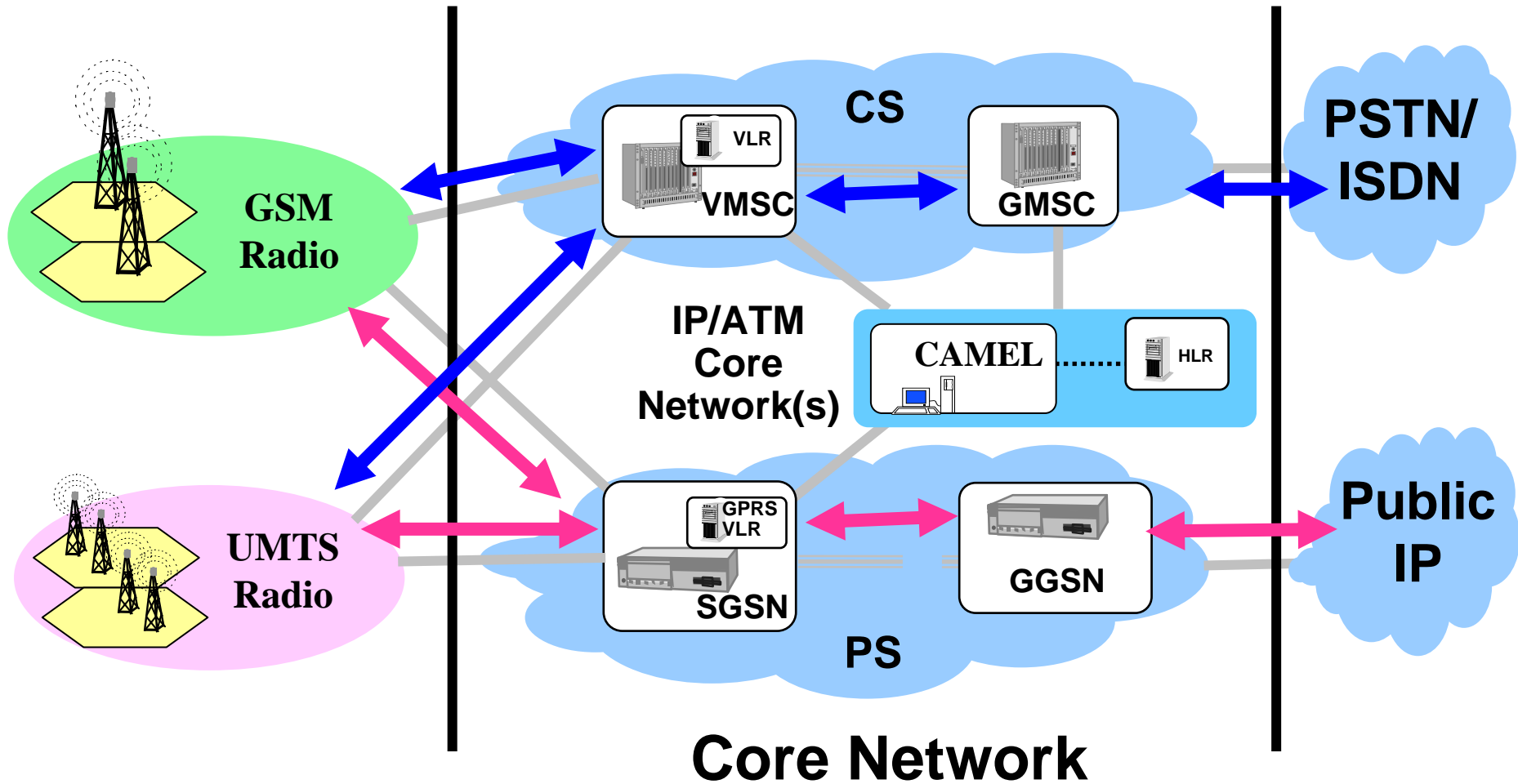
More Revolution than Evolution

Why do we need IP?

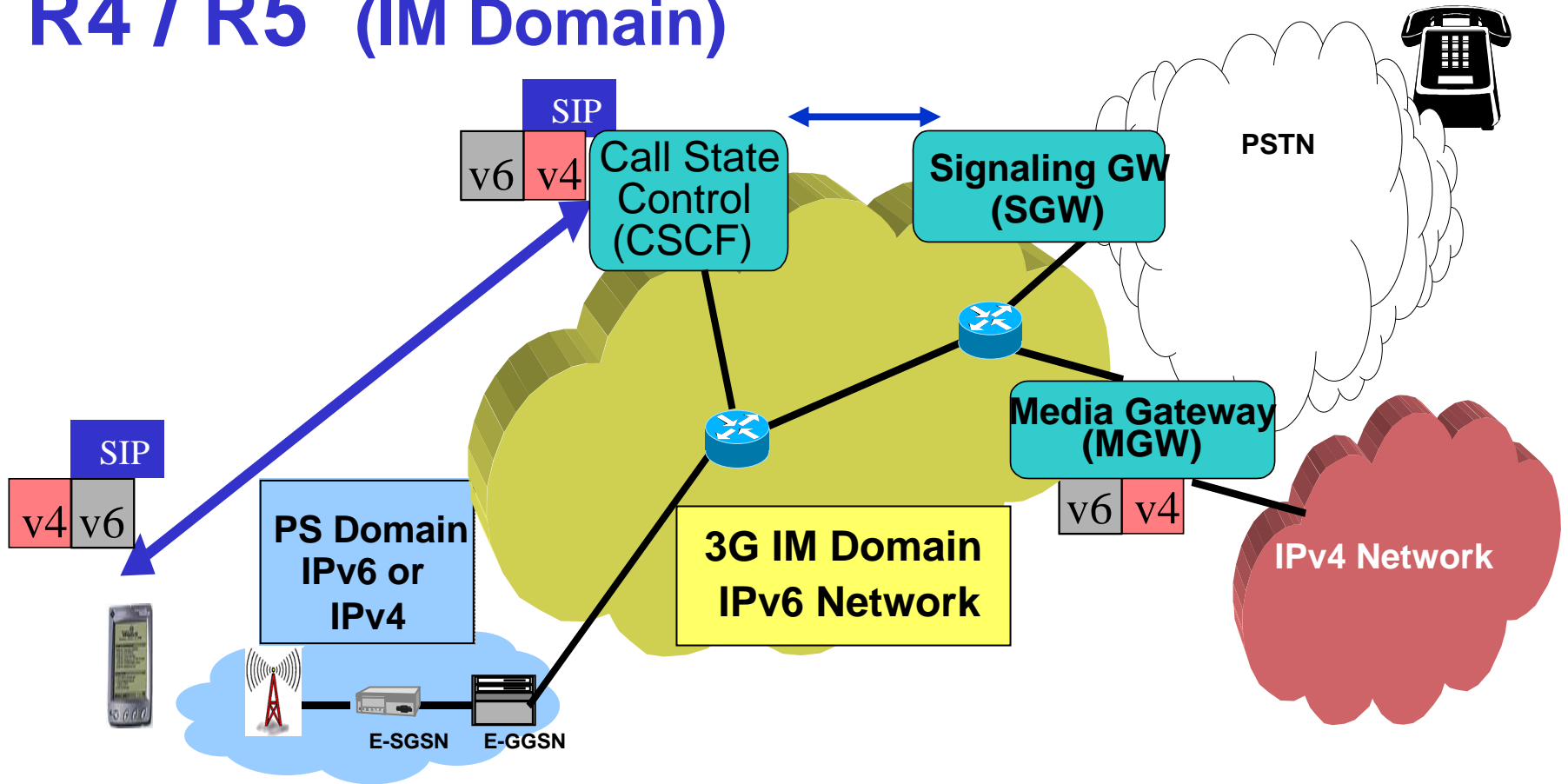
- **Deliver high-value, high-margin mobile multimedia services**
 - IP is the protocol of choice for application developers
- **Faster time to market for new services**
 - tap into internet innovation life cycle
- **Major cost reduction**
 - use IP technology widely to replace expensive circuit switch infrastructure

Ride on Innovation Cycle up and Cost Curve down

Core Network at 3G Launch (R3)



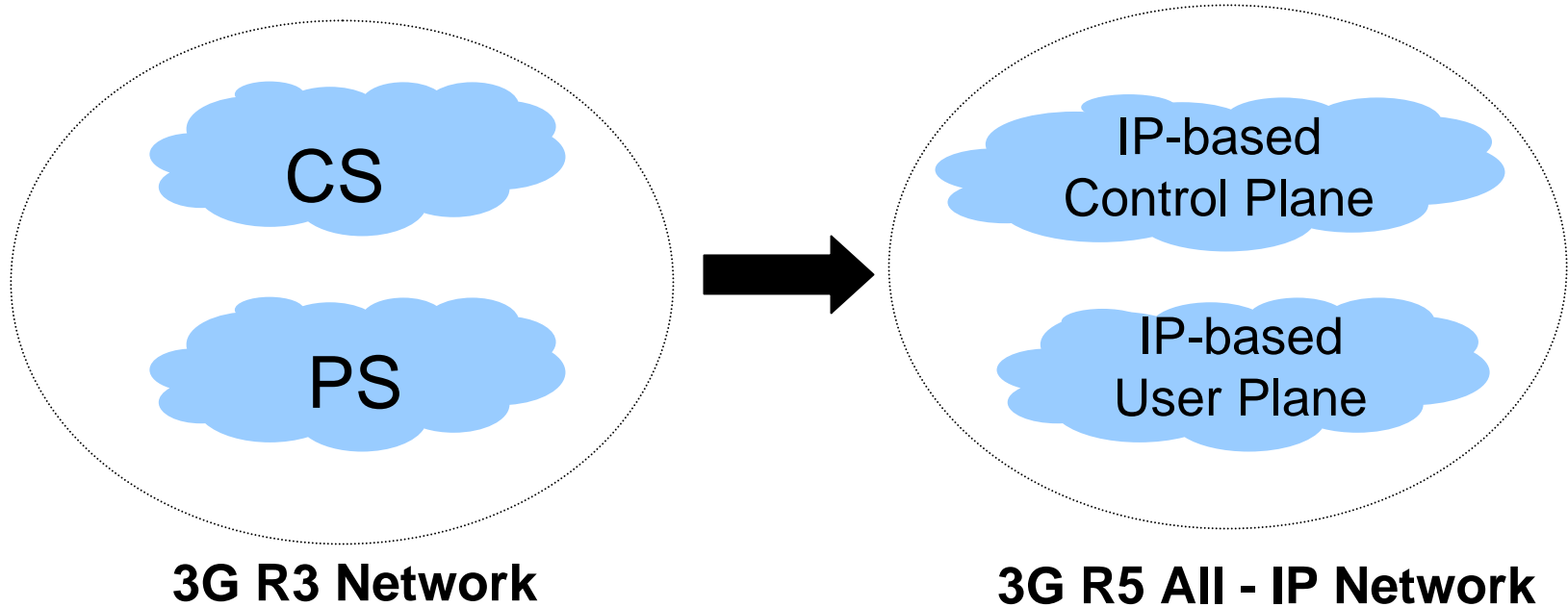
Roadmap to All-IP Networks - R4 / R5 (IM Domain)



- IP Multimedia (IM Domain) for real-time IP based applications
- Key Technologies are QoS, IPv6 and SIP signaling
- IM is critical to cap CS domain, and transferring all traffic including voice to IP environment

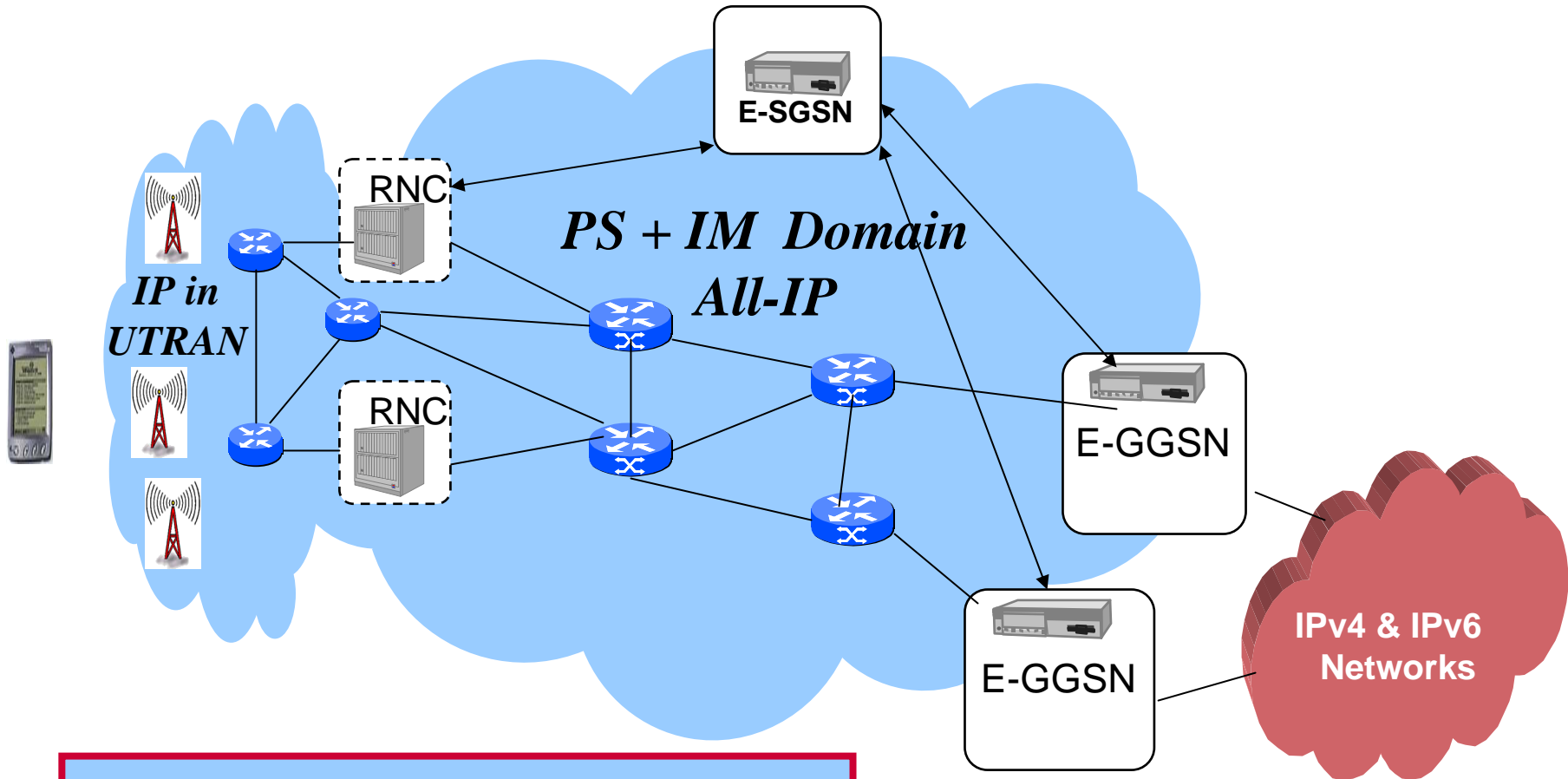
Core Network Evolution

R5 All-IP Network



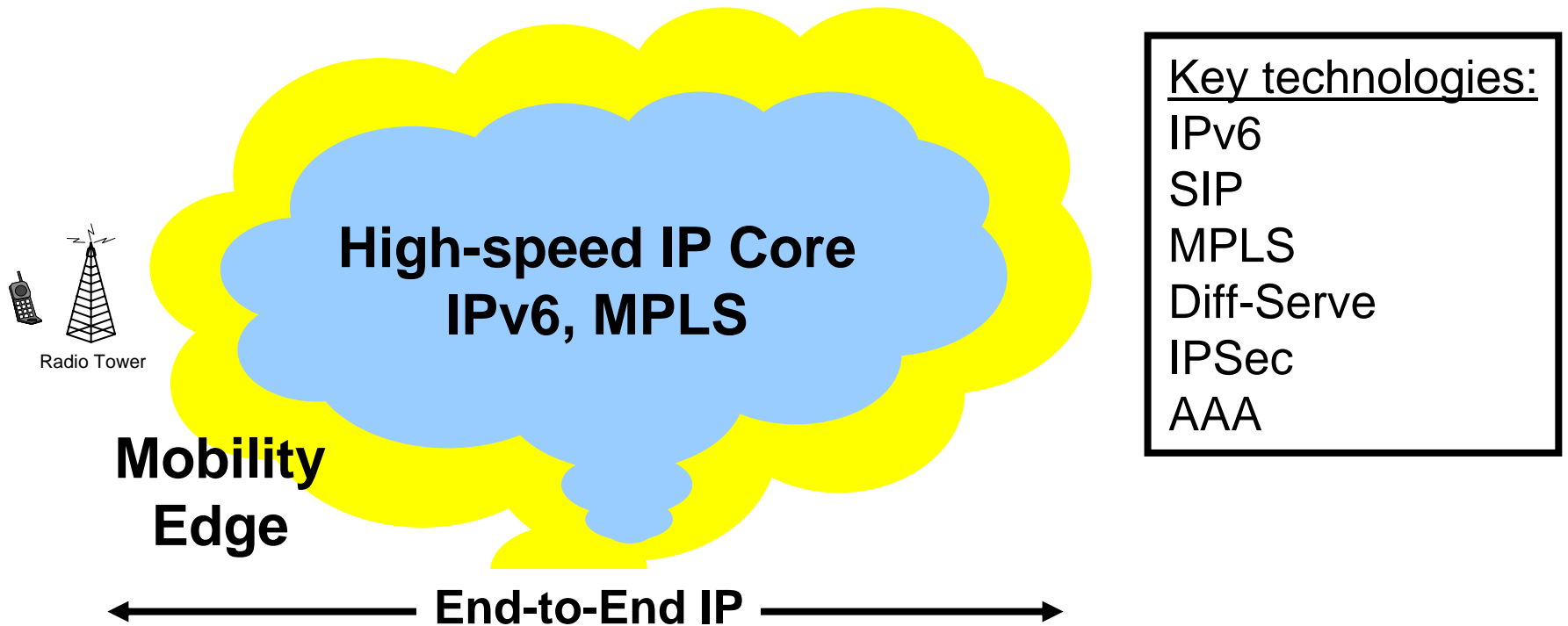
A very significant change, even though carried out in evolutionary steps

Roadmap to All-IP Networks - 3GPP R6+



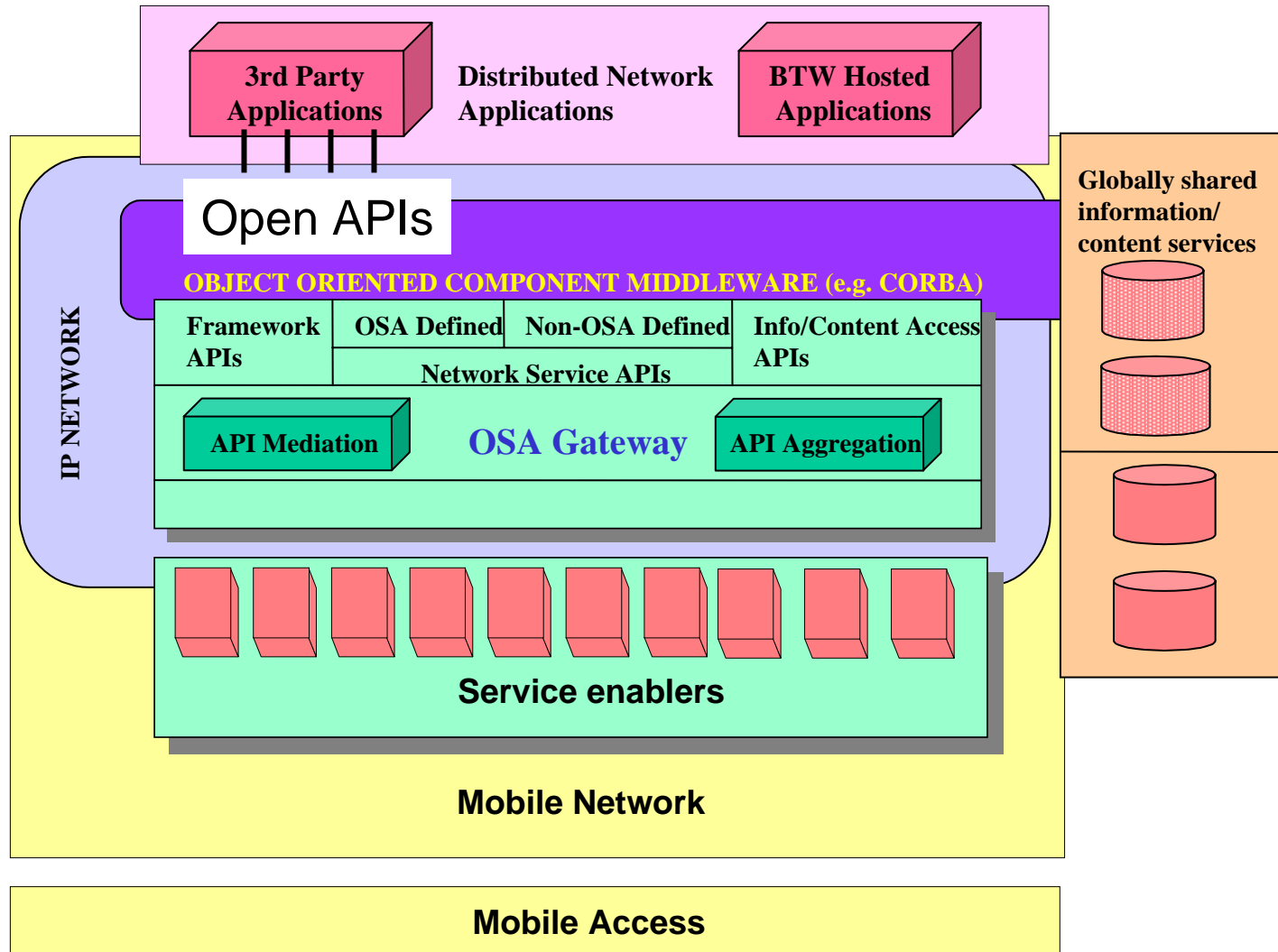
- **IP in UTRAN**
- **Elimination of GTP Tunnels**
- **Mobility enabled Routers**

Mobile Network and Access Convergence

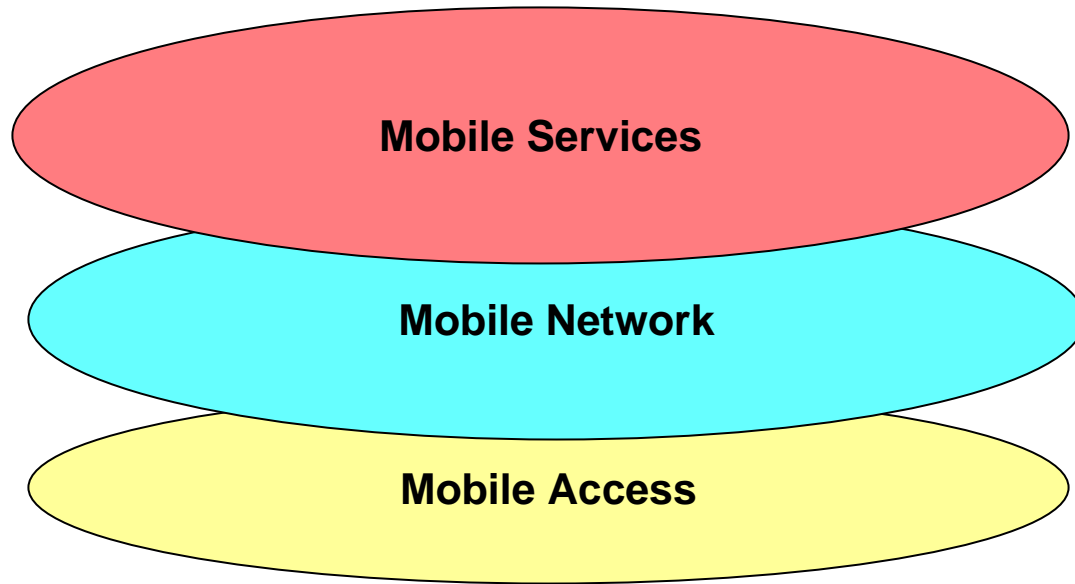


Key challenges: Quality of Service, Security, Interoperability, Bandwidth Efficiency, Mobility, Addressing, Service Management

Mobile Network & Services Convergence (OSA Architecture)



Summary



**Mobile Access, Network and Services
Convergence through IP**

Thank You !