

Addendum to Lecture 2: GPRS/ 2.5 G

INSE 7110 – Winter 2009

**Value Added Services Engineering in Next Generation Networks
Week #3**

2.5 G

Target solely data services

- Use packet switching principles between mobiles and bases stations for:
 - Faster connection set up
 - Higher data rates
 - Lower cost
- Rely on new nodes which communicate using packet switching principles

No impact on telephony

- Still based on circuit switching principles
- No change at all on the circuit switched part of 2G

GPRS as illustration

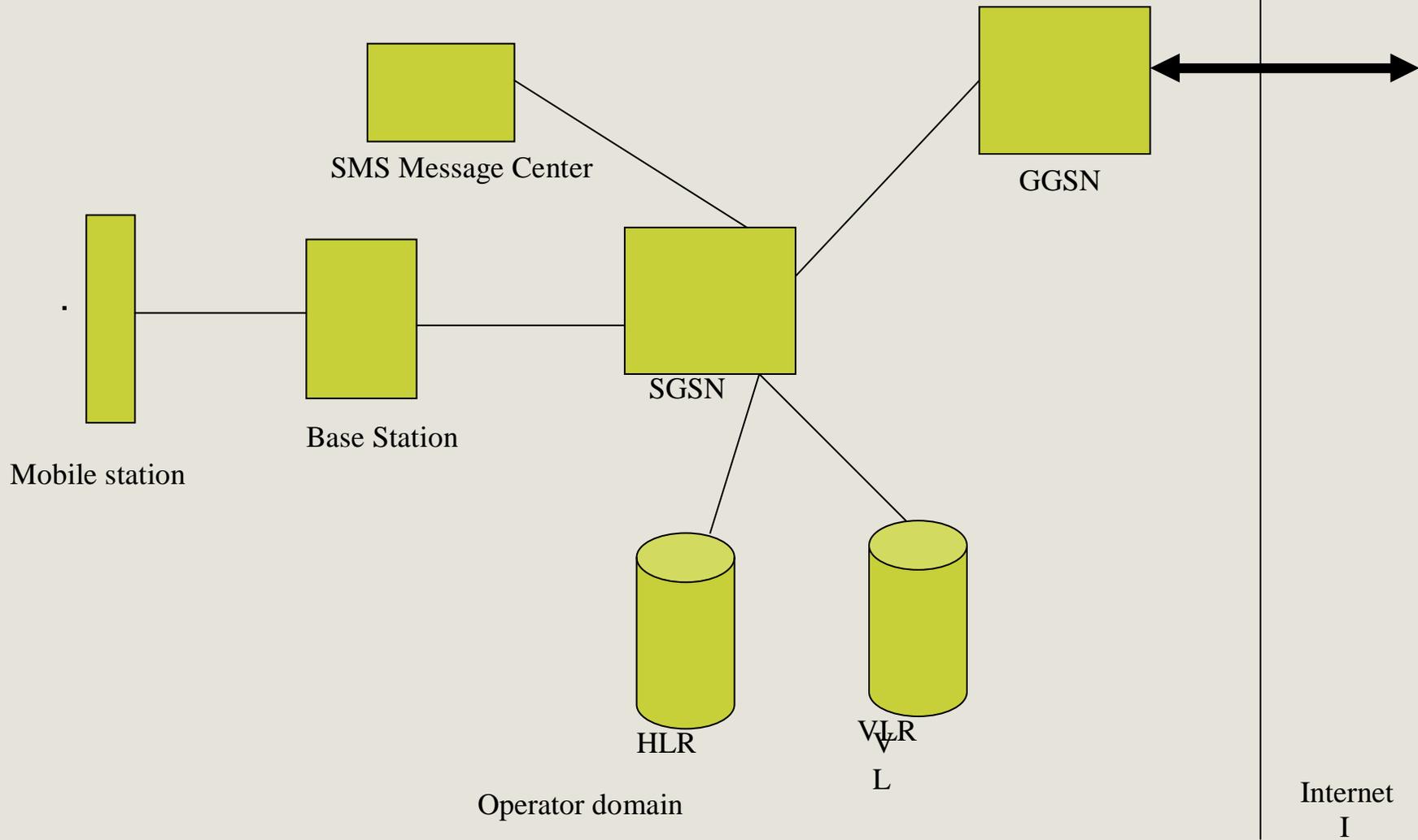
New class of nodes:

- **GPRS Support Node (GSN)**
 - Serving GPRS Support Node (S-GSN)
 - Entry point
 - Gateway GPRS Support Node (G-GSN)
 - Gateway to the external packet switched network (e.g. Internet)

New interfaces

- Interface S-GSN / G-GSN
- Interface S-GSN with the existing GSM nodes

GPRS as illustration (Simplified version)



Reference:

C. Bettstetter, H-J Vogel, J. Eberspacher, GSM Phase2+,
General Radio Service GPRS: Architecture, Protocols and Air
Interface, IEEE Communications Surveys & Tutorials, Third
Quarter 1999, Vol. 2, No3