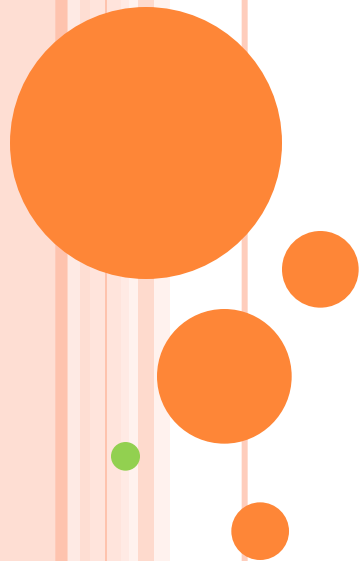


NGN Core Network

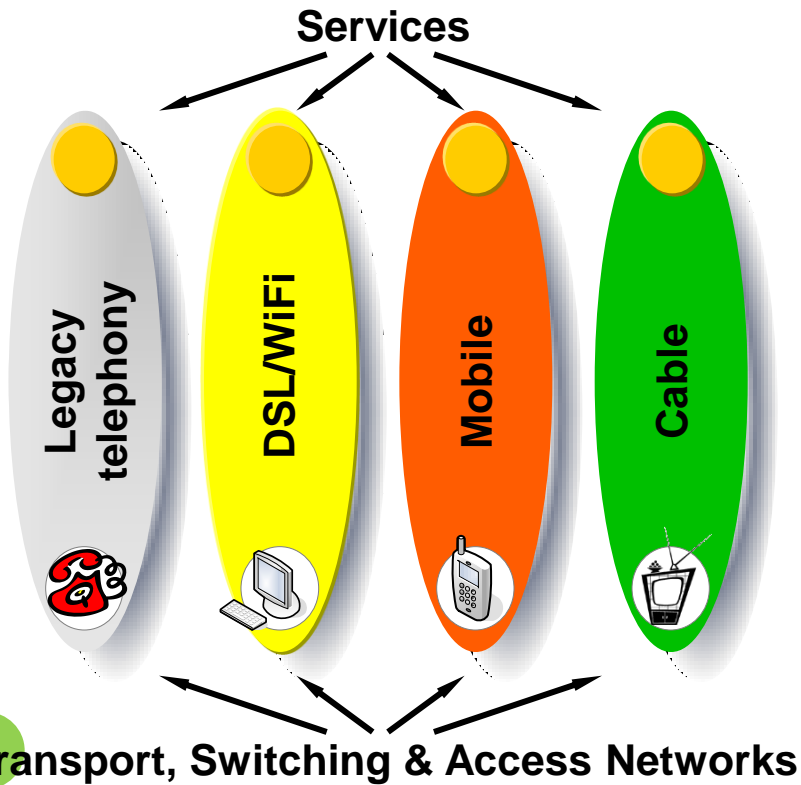
Next Generation Network



How far we've come

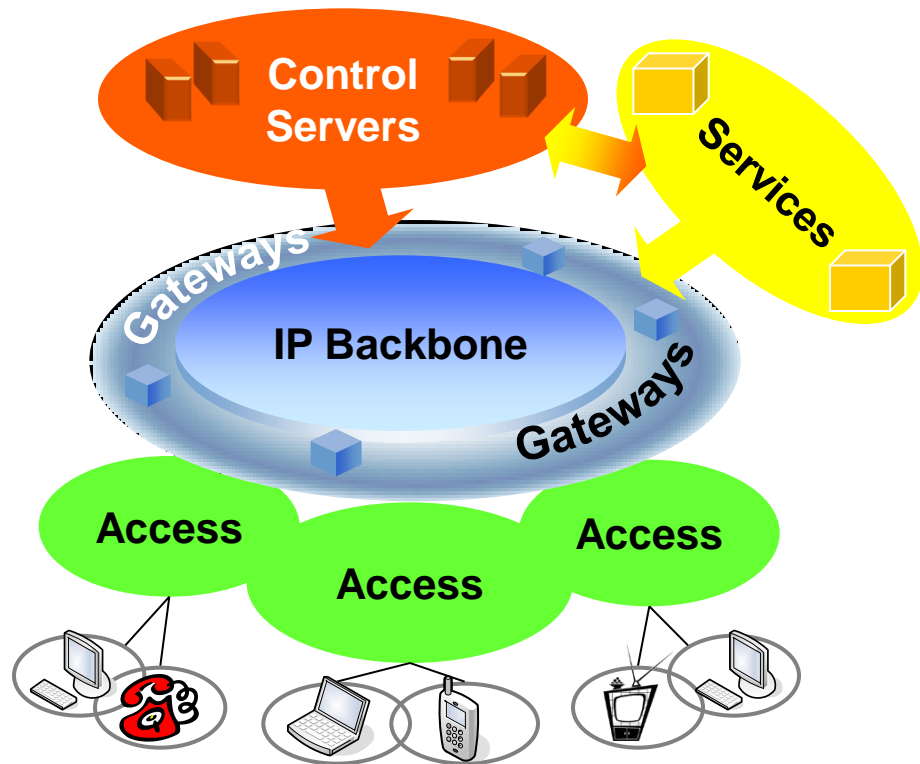
Yesterday

Single-service Vertical Networks



Now

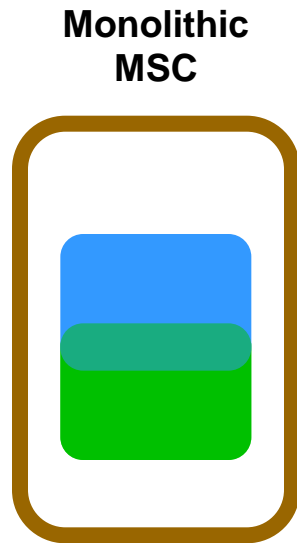
Multi-service Integrated Network



What is NGN ?

- Services independent from underlying transport technologies
- Separation of
 - Access layer
 - Transport layer
 - Control layer
 - Service layer
- with Transport and Control layers shared by Access and Service layers
- Transport converging towards IP
- Multimedia services
- This brings to
 - NGN Phase 1 (BICN)
 - NGN Phase 2 (IMS)
 - FMC
 - Access independent
 - Multimedia services
- *ITU-T Y.2001*

An MSC



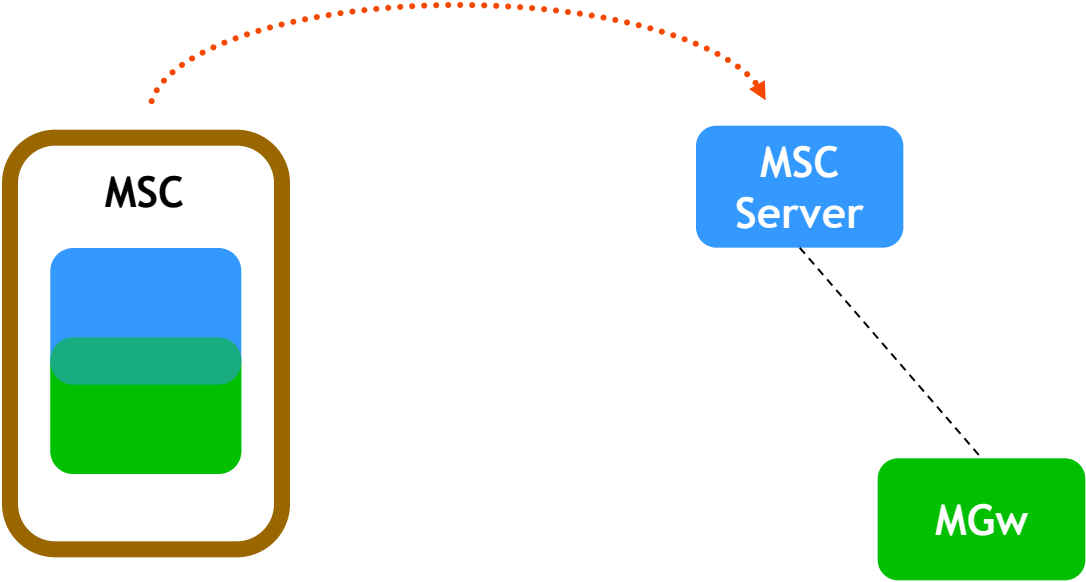
**Control
Plane**

**User
Plane**

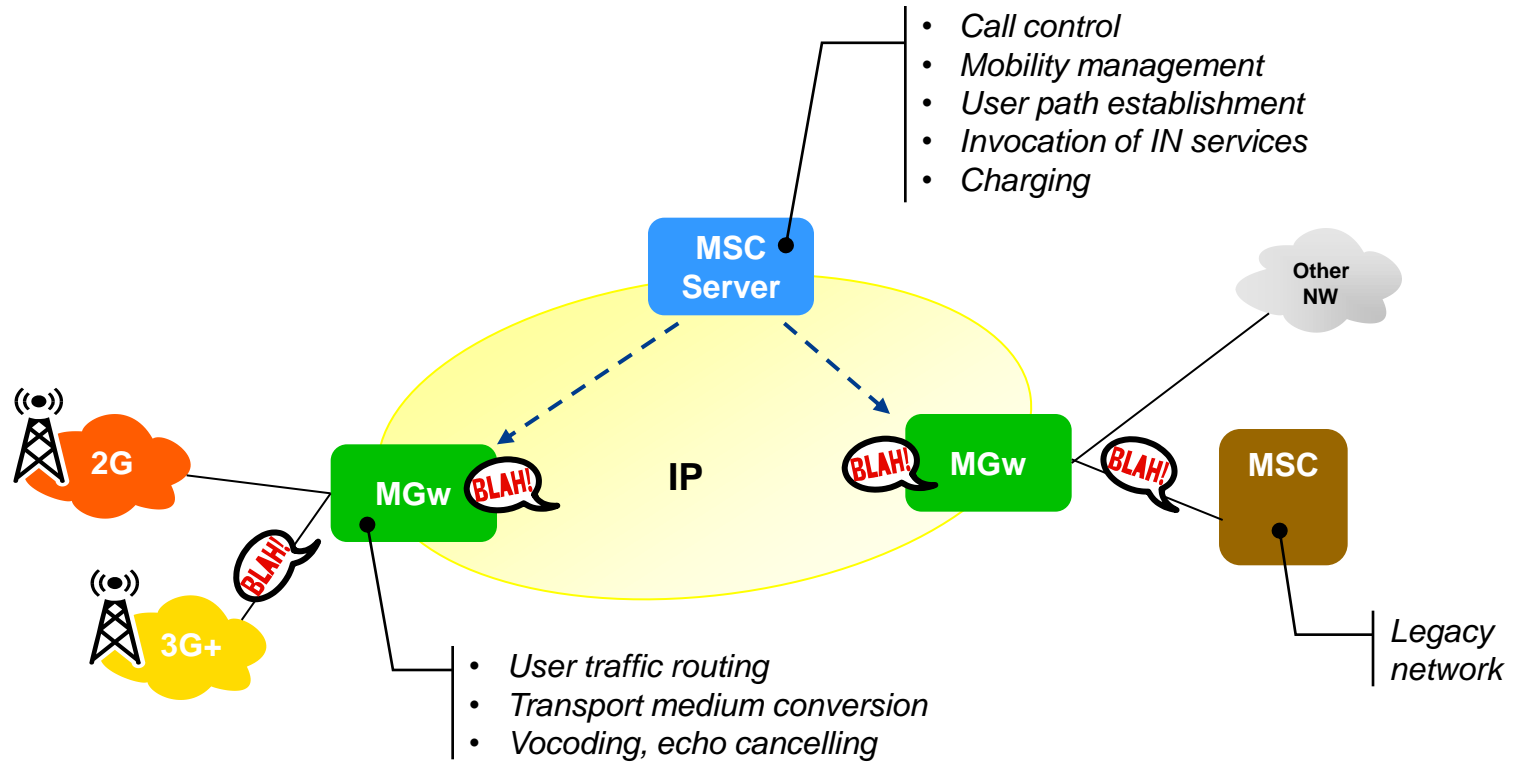
MSC's task:

- Call control
- Mobility management
- User traffic path establishment
- Invocation of IN services
- Charging
- User traffic switching
- Echo cancellation

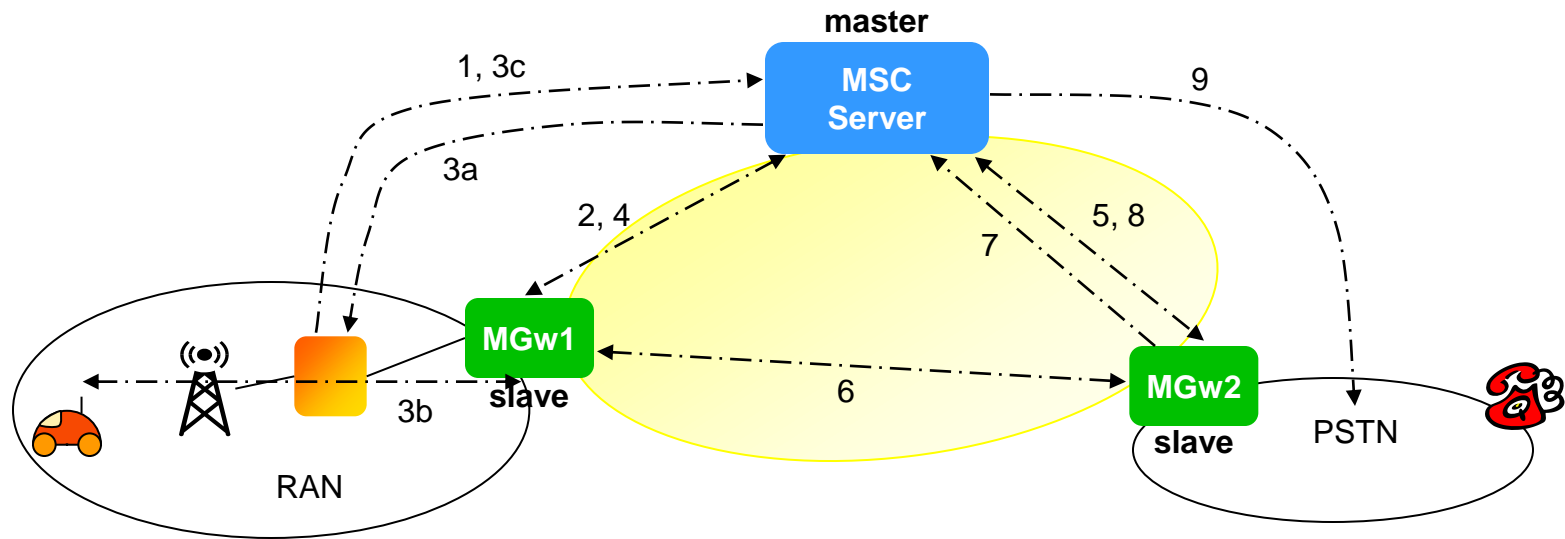
NGN = Distributed architecture



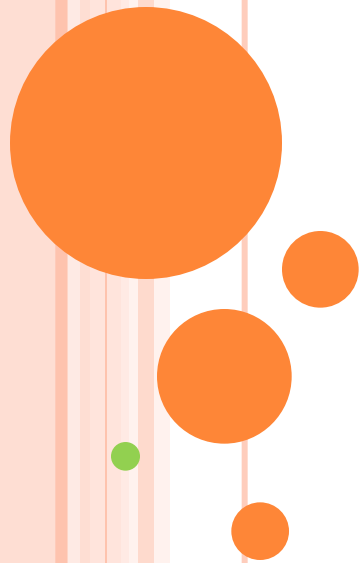
NGN Core Network



MO call to PSTN

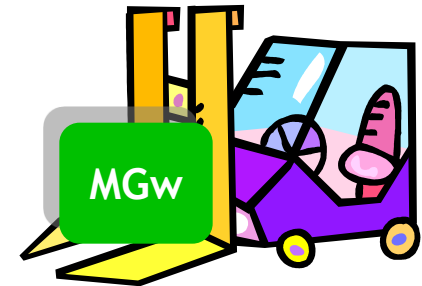


NGN Advantages



Dimensioning *on demand*

- MSC Servers according to number of subscribers
- MGw according to user traffic
- Flexibility to face traffic growth
⇓
- Investments optimization



Energy gains

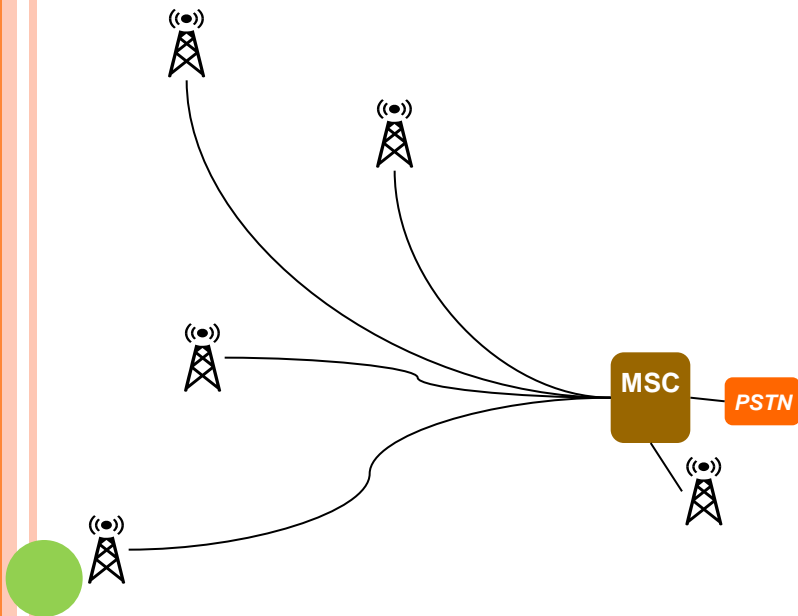
- Foot print
 - *old* Monolithic MSC: 17.1 m²
 - *new* Monolithic MSC: 3.96 m²
 - MSC Server: 0.96 m²
 - MGw: 0.96 m²
- Power consumption
 - *old* Monolithic MSC: 15 000 W
 - MSC Server: 1 500 W
 - MGw: 2 000 W
- Air conditioning



« Local calls remain local »

- Local calls have to go up to the central MSC

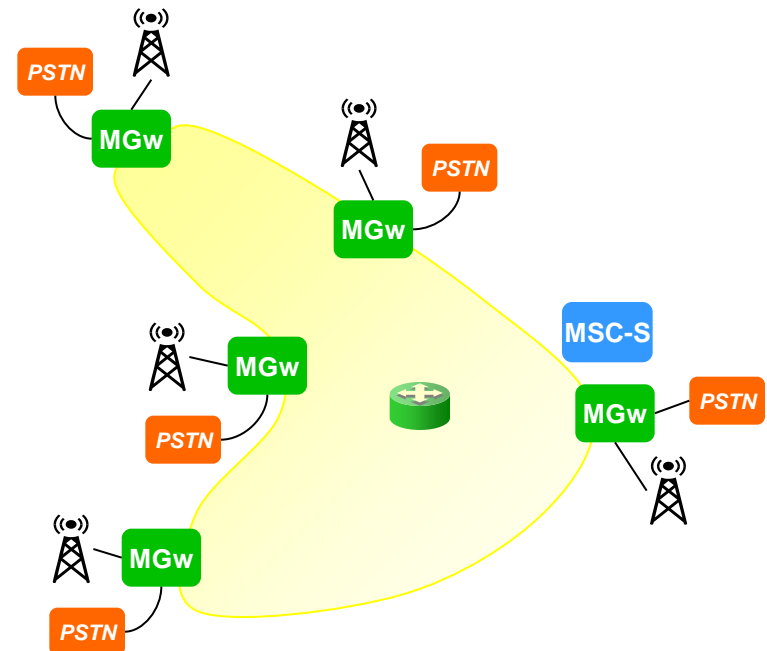
Monolithic



- Local calls remain in the local MGw

- Only national calls go from one MGw to another through the backbone

NGN



Bandwidth savings

