

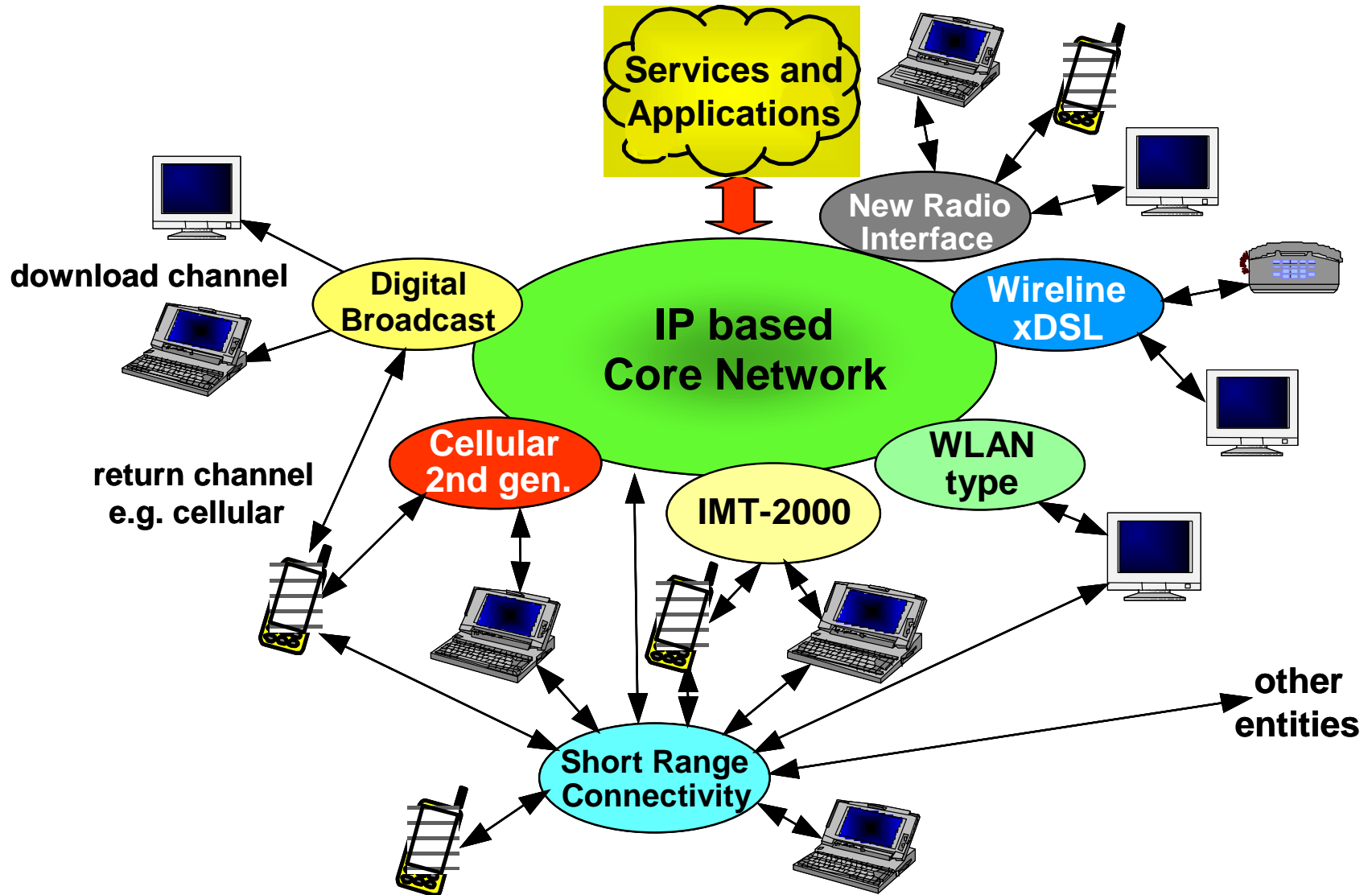
# Mobility aspects of NGN Architecture

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# Mobility is Everywhere





# Mobility Management Complexity

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- o 3GPP and 3GPP2 do MM in slightly different ways: not fully compatible
- o There are multiple Mobility Management protocols\*:
  - Mobile IP (MIP); extensions: HMIP and FMIP
  - Session Initiation Protocol (SIP)
  - Cellular IP (CIP): with MIP for MM; with SIP for MM
  - mobile Stream Control Transmission Protocol (mSCTP)
  - 3GPP Mobility Management Protocols: MAP—MIP and SIP in 3GPP system
  - 3GPP2 Mobility Management Protocols—MM in the ANSI-41 evolved IP MMD core network
  - BRAIN Candidate Mobility Protocol (BCMP)

\* *Q series Supplement 52 - Technical Report on NNI Mobility Management Requirements*

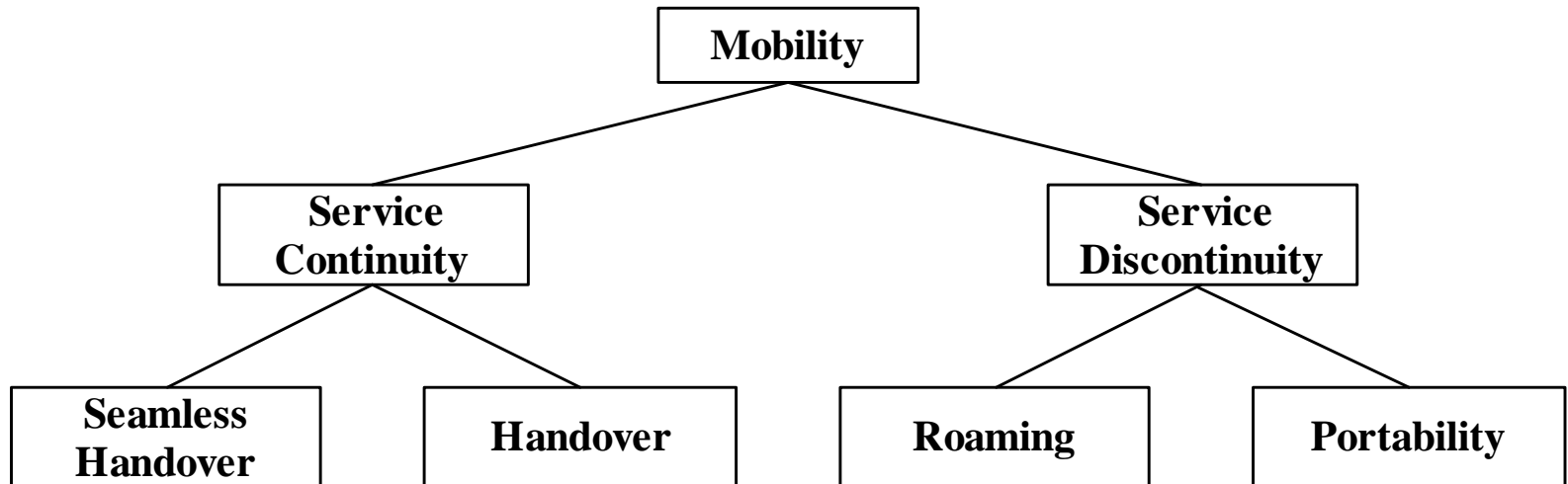
*From SG19's Chair, Mr. John Vissa's Presentation in ATIS-ITU Workshop*

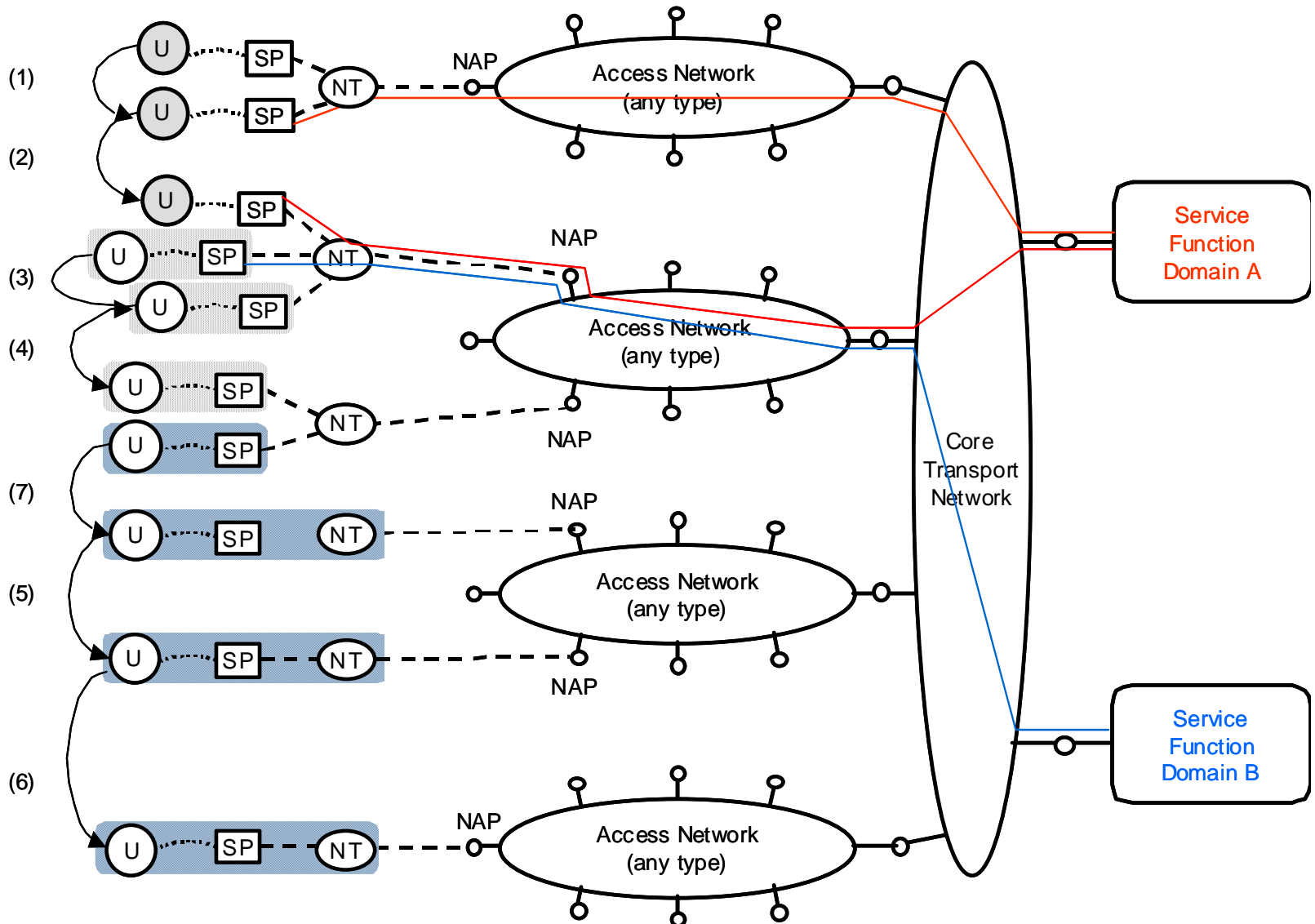


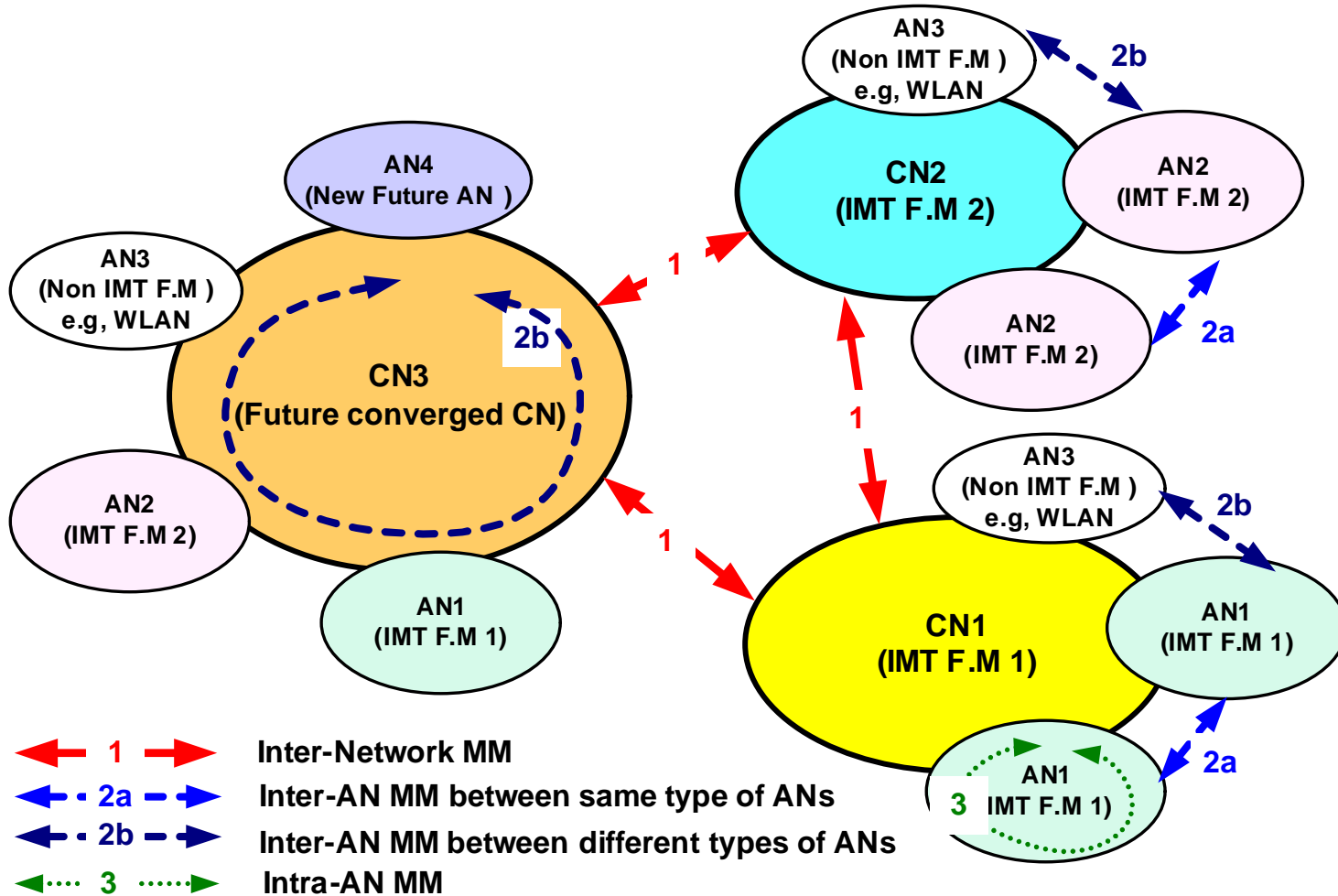
# Generalized Mobility's Dimension

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- Terminal Mobility
- Network Mobility
- Personal Mobility
- Service Mobility





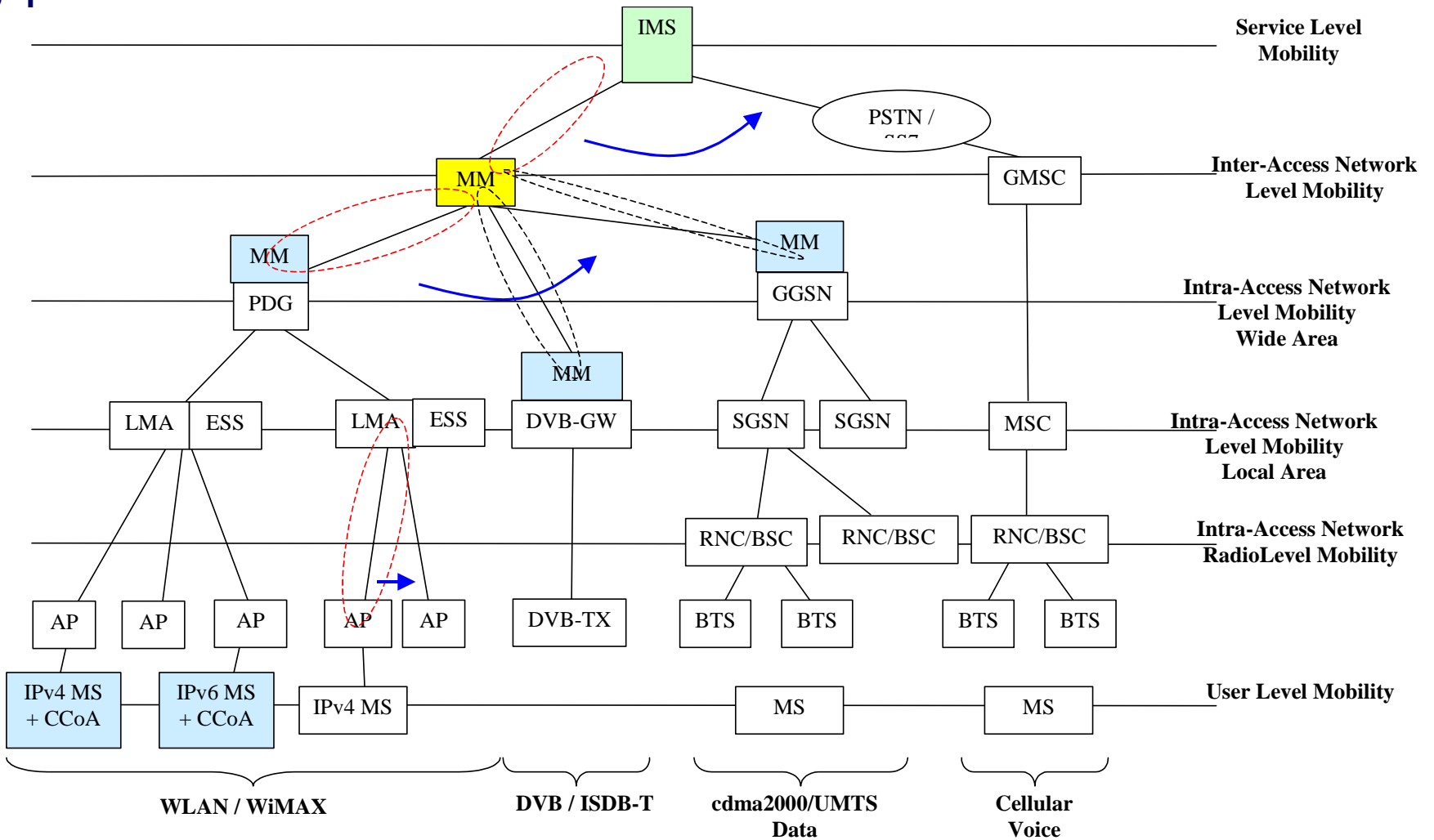


<b>MM</b>	<b>Mobility Management</b>	<b>CN</b>	<b>Core Network</b>
<b>AN</b>	<b>Access Network</b>	<b>IMT F.M</b>	<b>IMT-2000 Family Member</b>



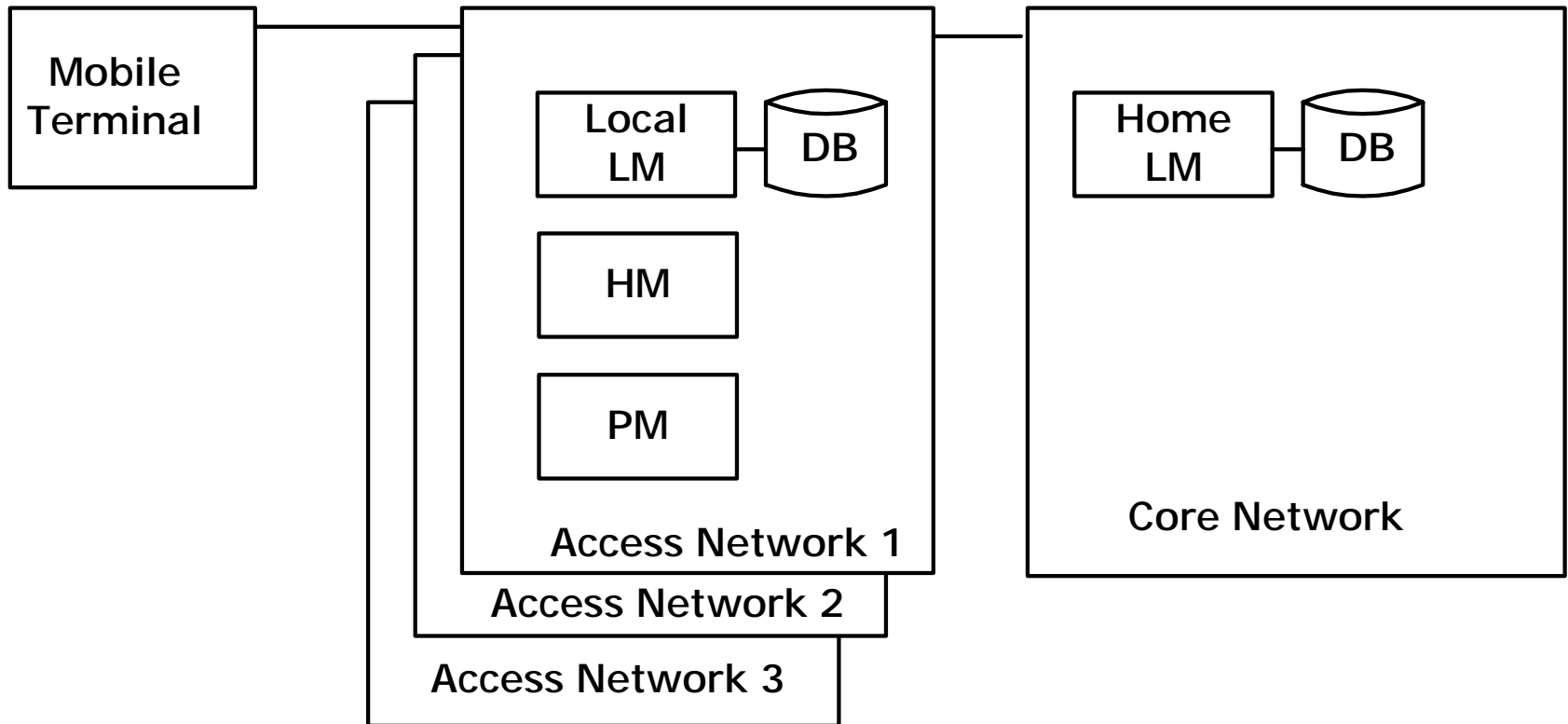
# Example to achieve MM in Different Level

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# Key Mobility Managers



LM: Location Manager      HM: Handover Manager  
PM: Paging Manager





- o Client-Server Services Model
  - Short-lived sessions (e.g., e-mail, Web, etc);
  - Long-lived sessions for non-real time services (file transfer, video/music download, etc);
  - Long-lived sessions for real-time services (Interactive VoD or AoD, etc).
- o Peer-to-Peer Services Model
  - Short-lived sessions (e.g., short message services, etc);
  - Long-lived sessions for non-real time services (multimedia messenger services, etc);
  - Long-lived sessions for real-time services (Voice over IP, etc).



# Current Considered MM Scenarios

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Services Model	Features	Services Examples	MM Functionality	
			LM (with PM)	HM (loss- or delay-sensitive)
Client-Serv er	Short-lived	e-mail, Web	Not Required	Not Required
	Long-lived (non-real time)	File download	Not Required	Required (loss-sensitive)
	Long-lived (real time)	Interactive VoD	Not Required	Required (delay-sensitive)
Peer-to- Peer	Short-lived	Short message service	Required	Not Required
	Long-lived (non-real time)	Multimedia messenger service	Required	Required (loss-sensitive)
	Long-lived (real time)	VoIP	Required	Required (delay-sensitive)



- o 4 closely related co-operating Questions:
  - Q.2/19 Mobility management
  - Q.5/19 Convergence of evolving IMT-2000 networks with evolving fixed networks
  - Q.6/13 NGN mobility and fixed-mobile convergence
  - Q.29/16 Mobility for Multimedia Systems and Services



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# NGN-GSI's Relevant Projects

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TR.NGN-MOB in FGNGN

Y.NGN-MOB in Q6/13

Q.MMR in Q2/19

Q.MMF in Q2/19



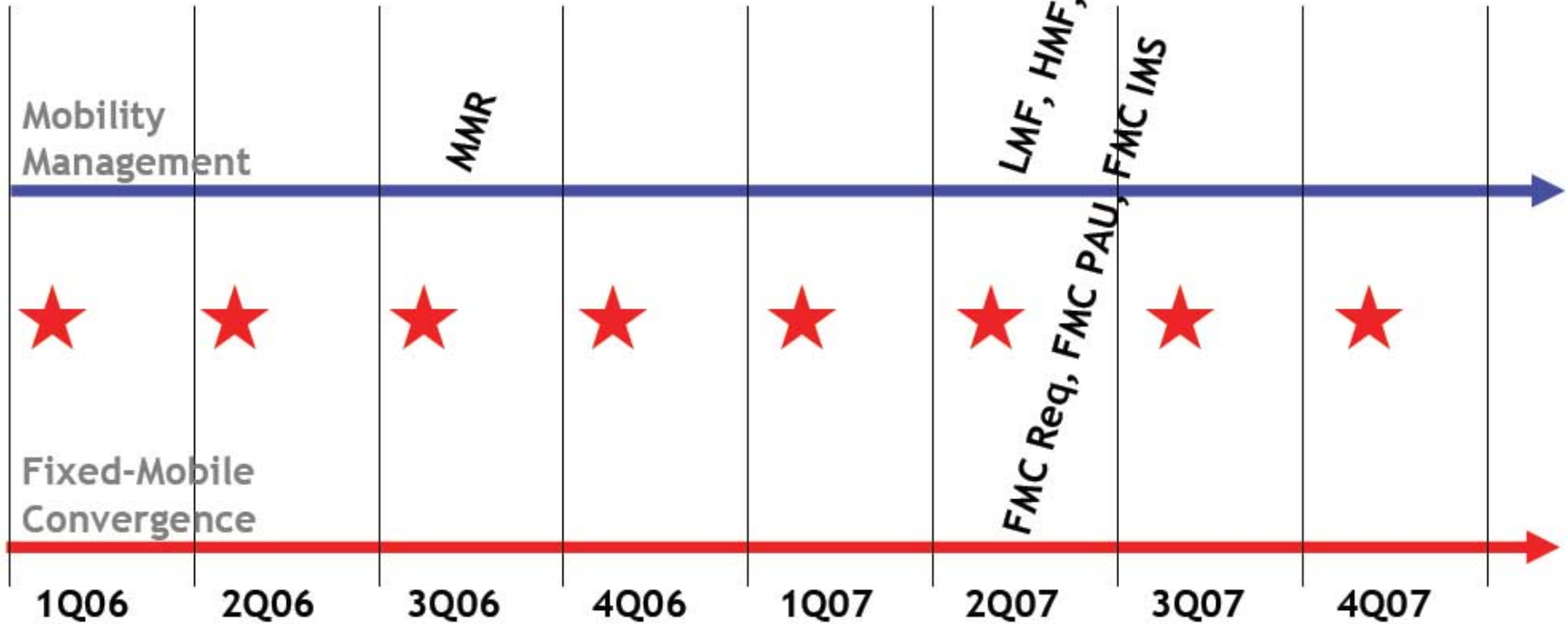
- Rec.MMR: Mobility Management Requirements (Stage 1)
- Rec.MMF: Mobility Management Framework (Stage 2)
- Rec.LMF: Location Mobility Management Framework (Stage 2)
- Rec.HMF: Handover Management Framework (Stage 2)



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# NGN-GSI Projects' Time Table

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*Thank You*

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