# 802.16g Reference Models and Network Architecture

**IEEE 802.16 Presentation Submission Template (Rev. 8.3)**

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## Base Document:

## Purpose:

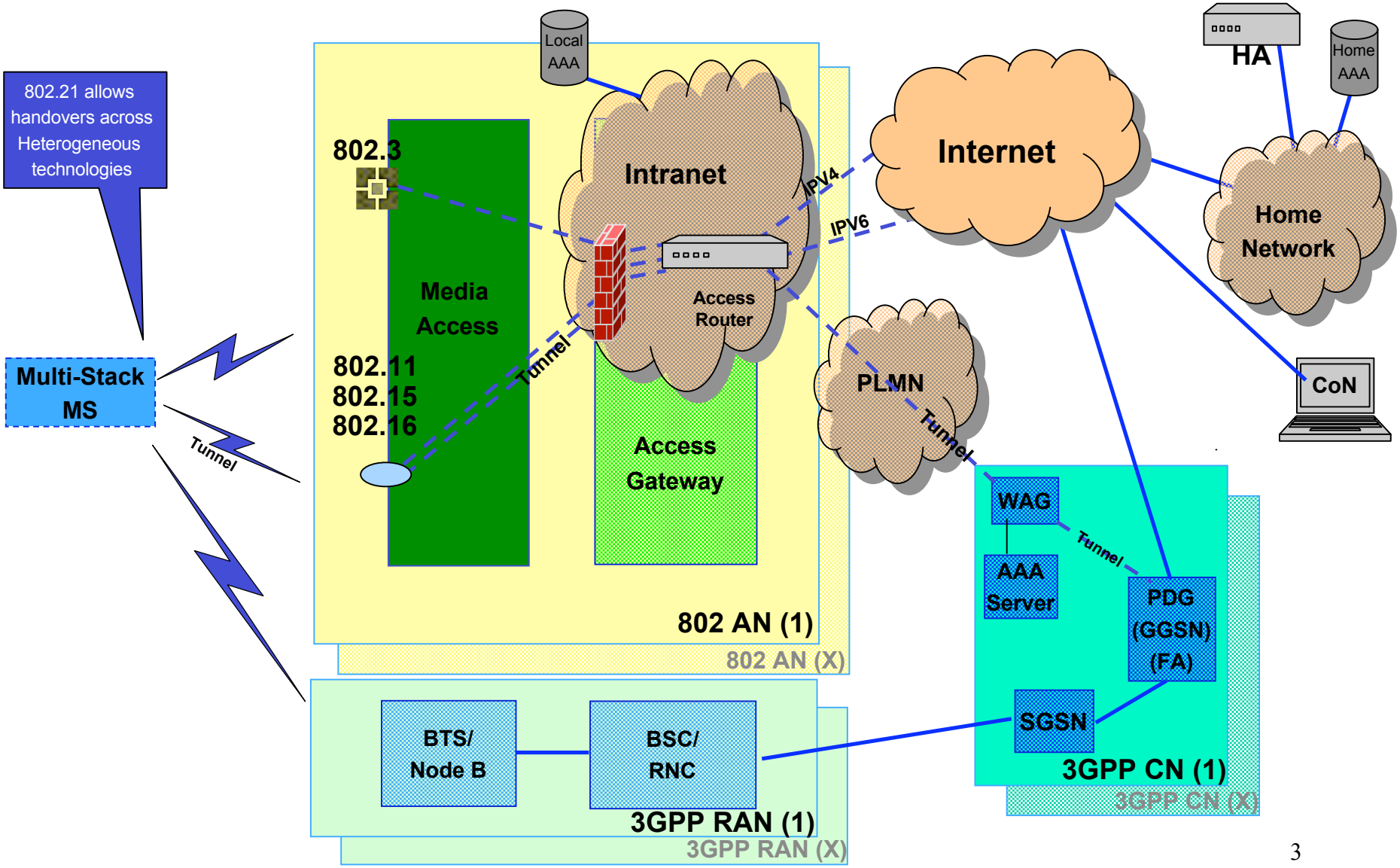
This is a response to a Call for Contributions on IEEE P802.16g

# Outline

- Network Architecture
  - Proposed 802.21 Logical Network Architecture
  - 802.16 Logical Network Architecture Options
  - 802.16 Physical Network Architecture Options

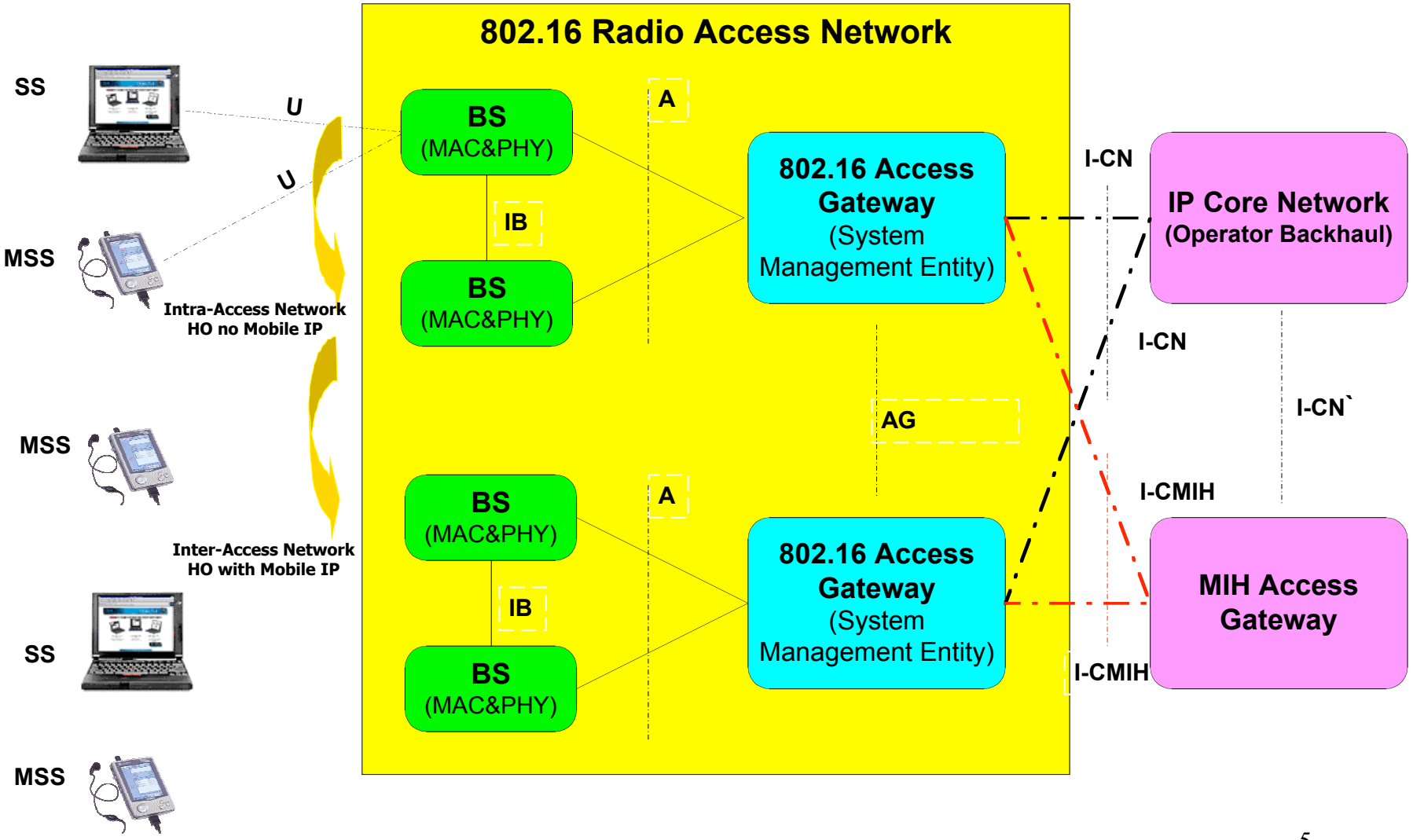
- Reference Models
  - Proposed 802.21 Reference Model
  - Proposed 802.21 MIH Management Plane
  - 802.16g Handover Management Plane
  - 802.16g Reference Model

# Proposed 802.21 Logical Network Architecture

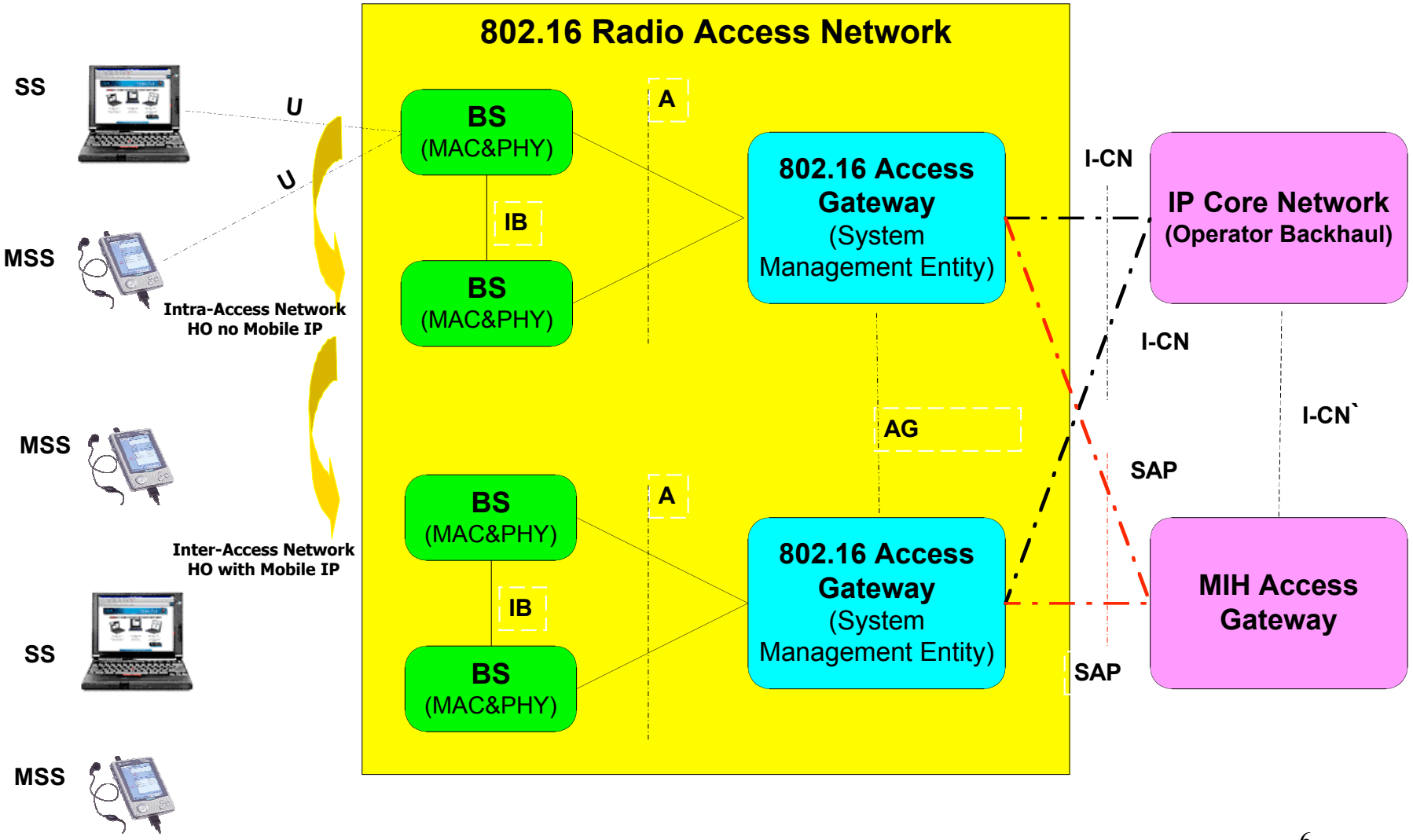


# 802.16g Logical Network Architecture Options

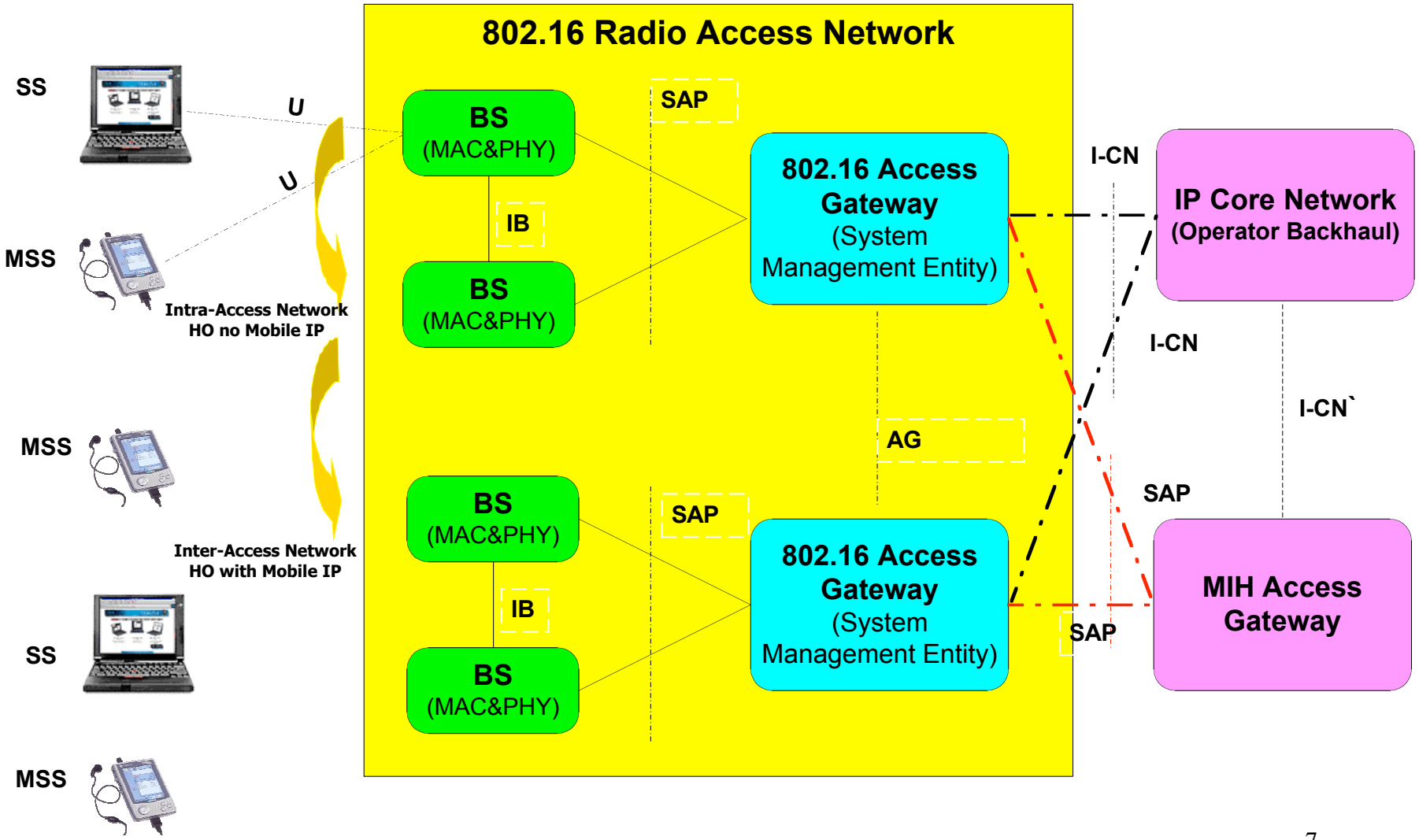
# 802.16 Logical Network Architecture (Option 1)



# 802.16 Logical Network Architecture (Option 2)

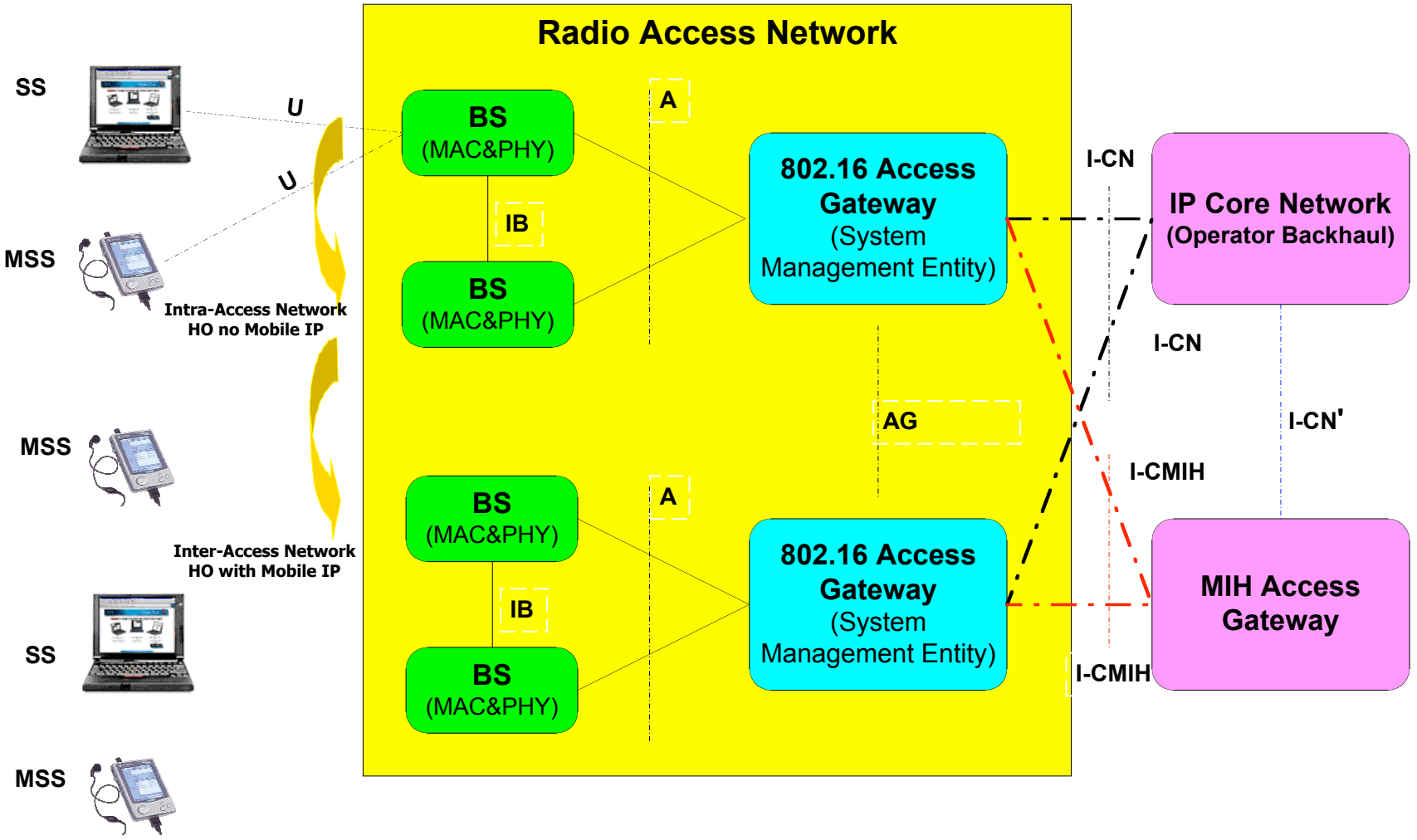


# 802.16 Logical Network Architecture (Option 3)

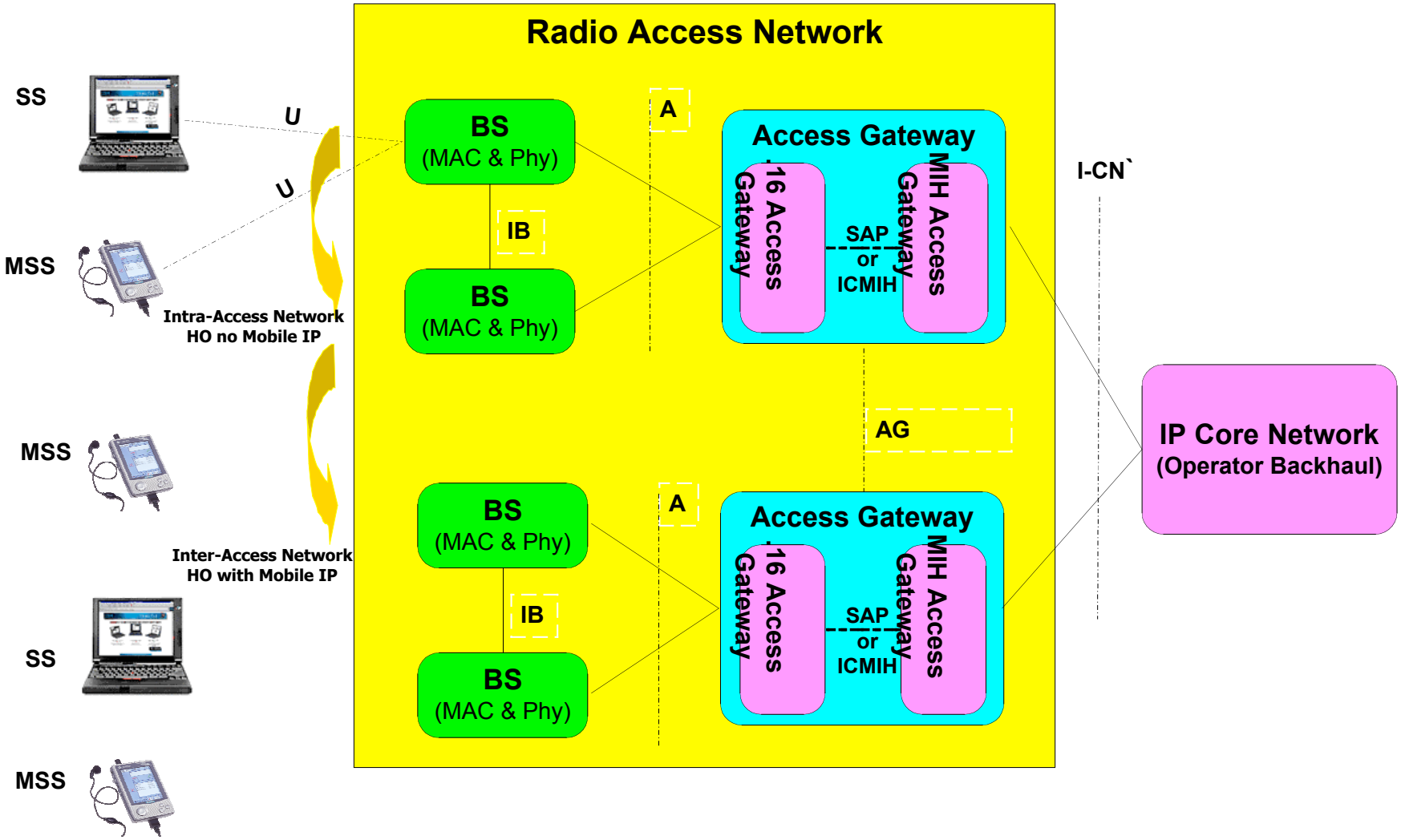


# 802.16g Physical Network Architecture Options

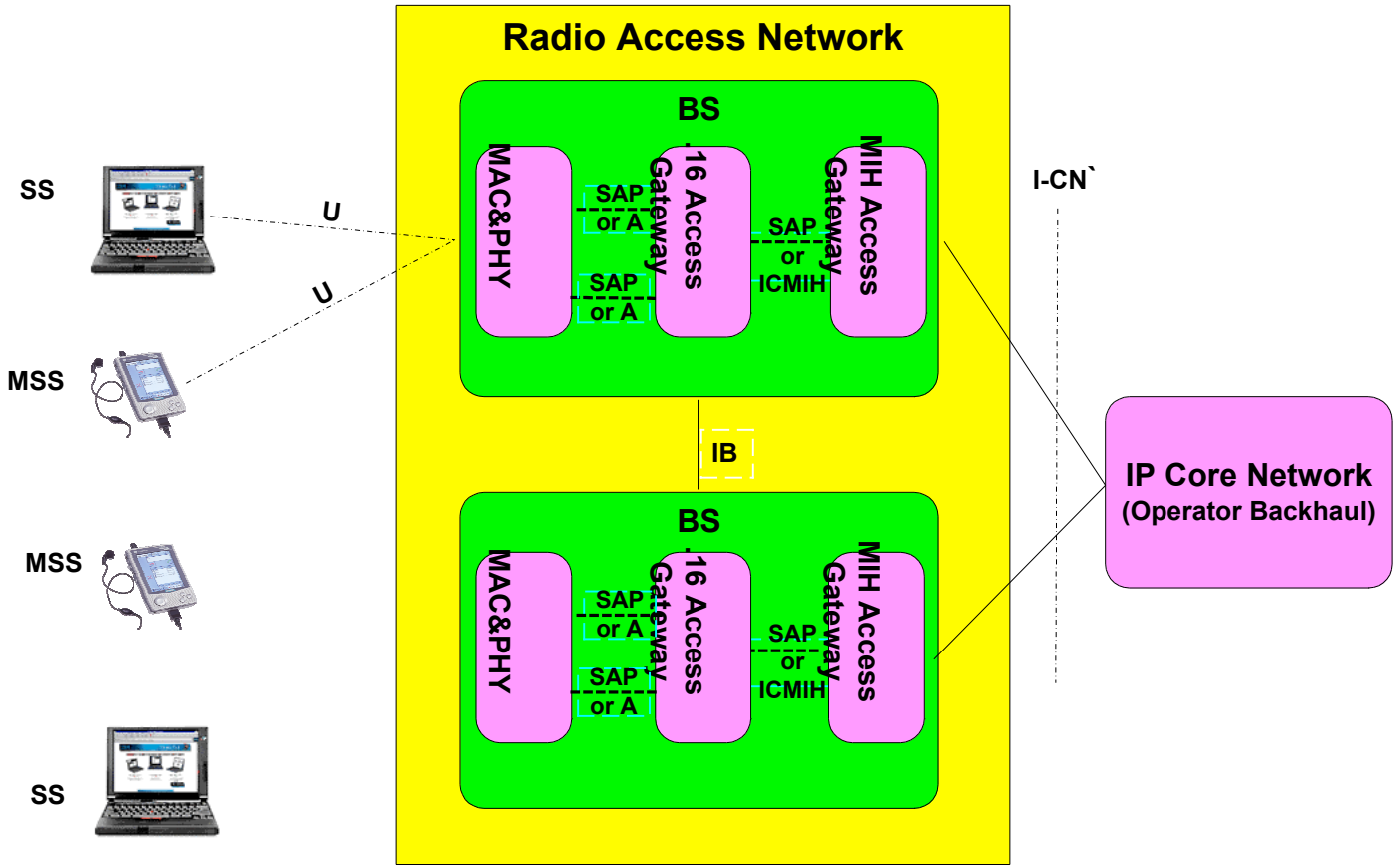
# 802.16 Physical Network Architecture (Option 1)



# 802.16 Physical Network Architecture (Option 2)

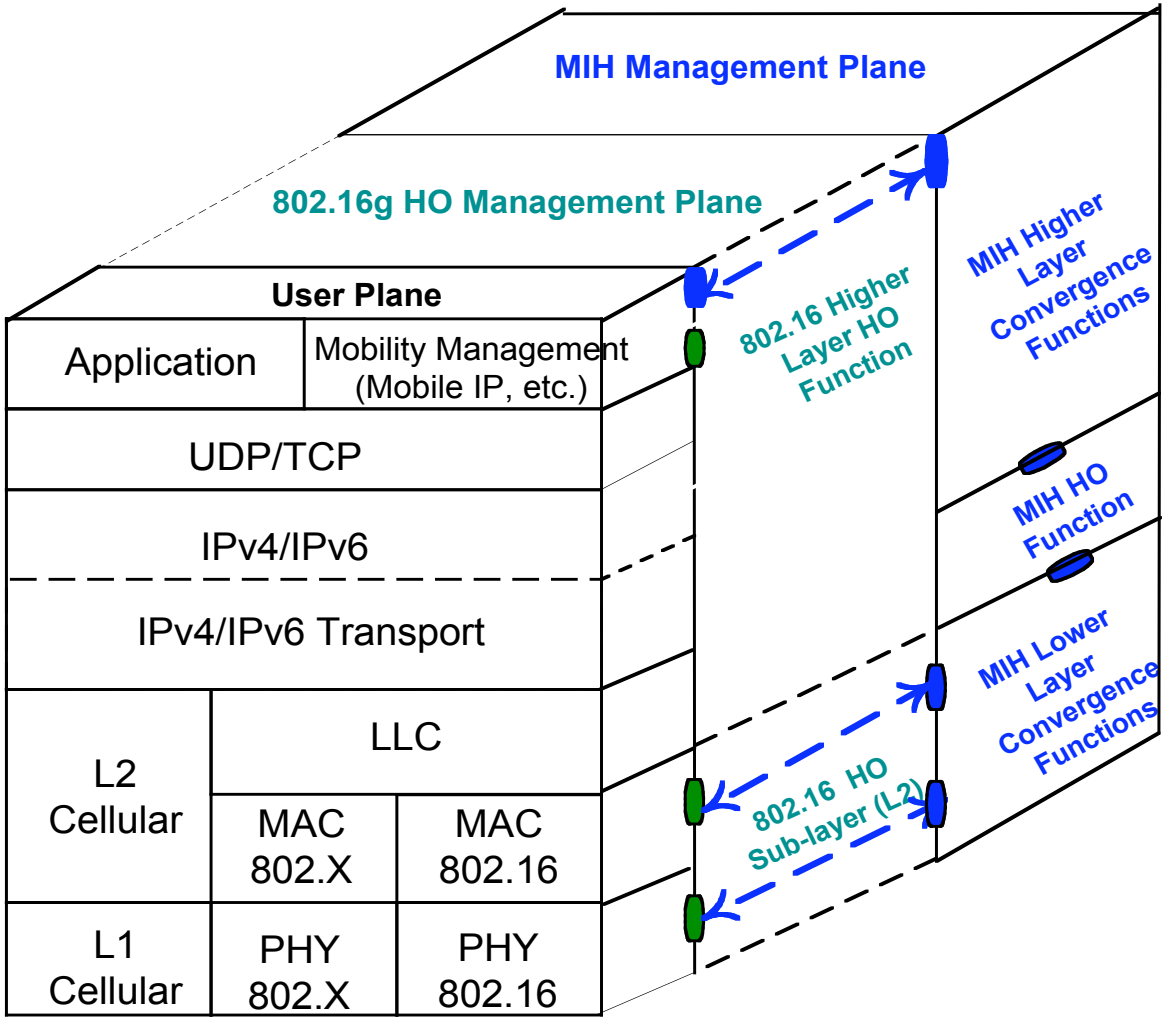


# 802.16 Physical Network Architecture (Option 3)

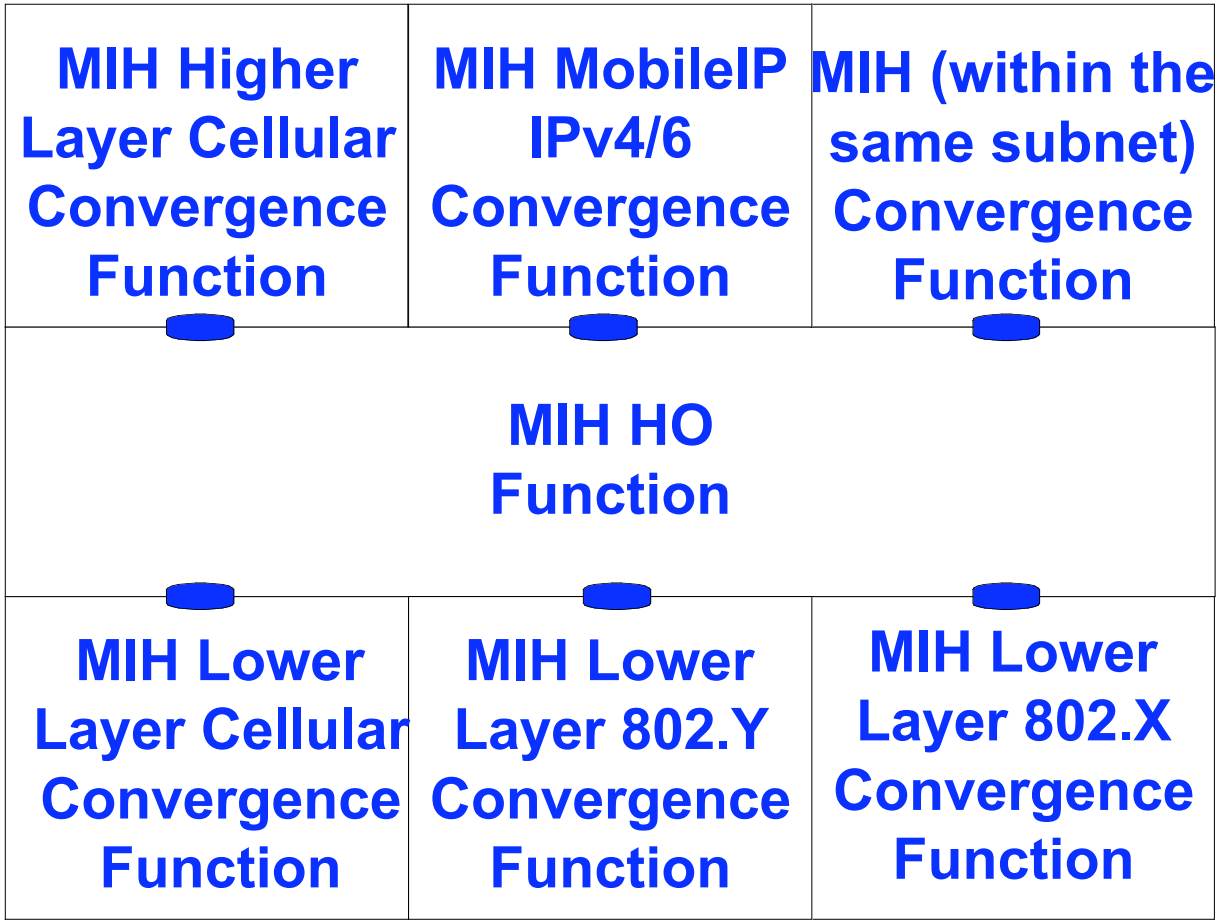


# Reference Models

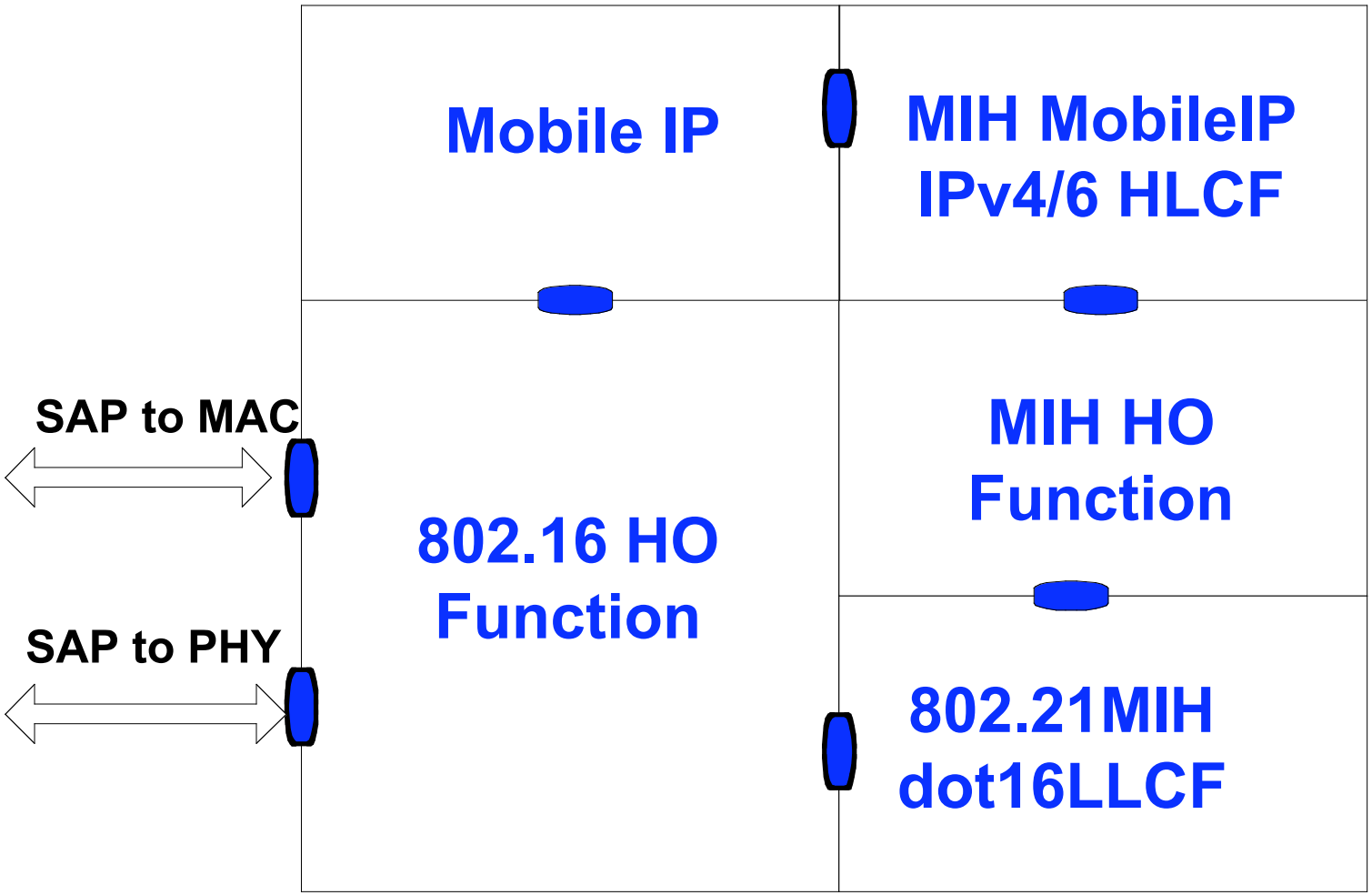
# Proposed 802.21 Mobility Reference Model



# Proposed Media Independent Handover Management Plane for 802.21



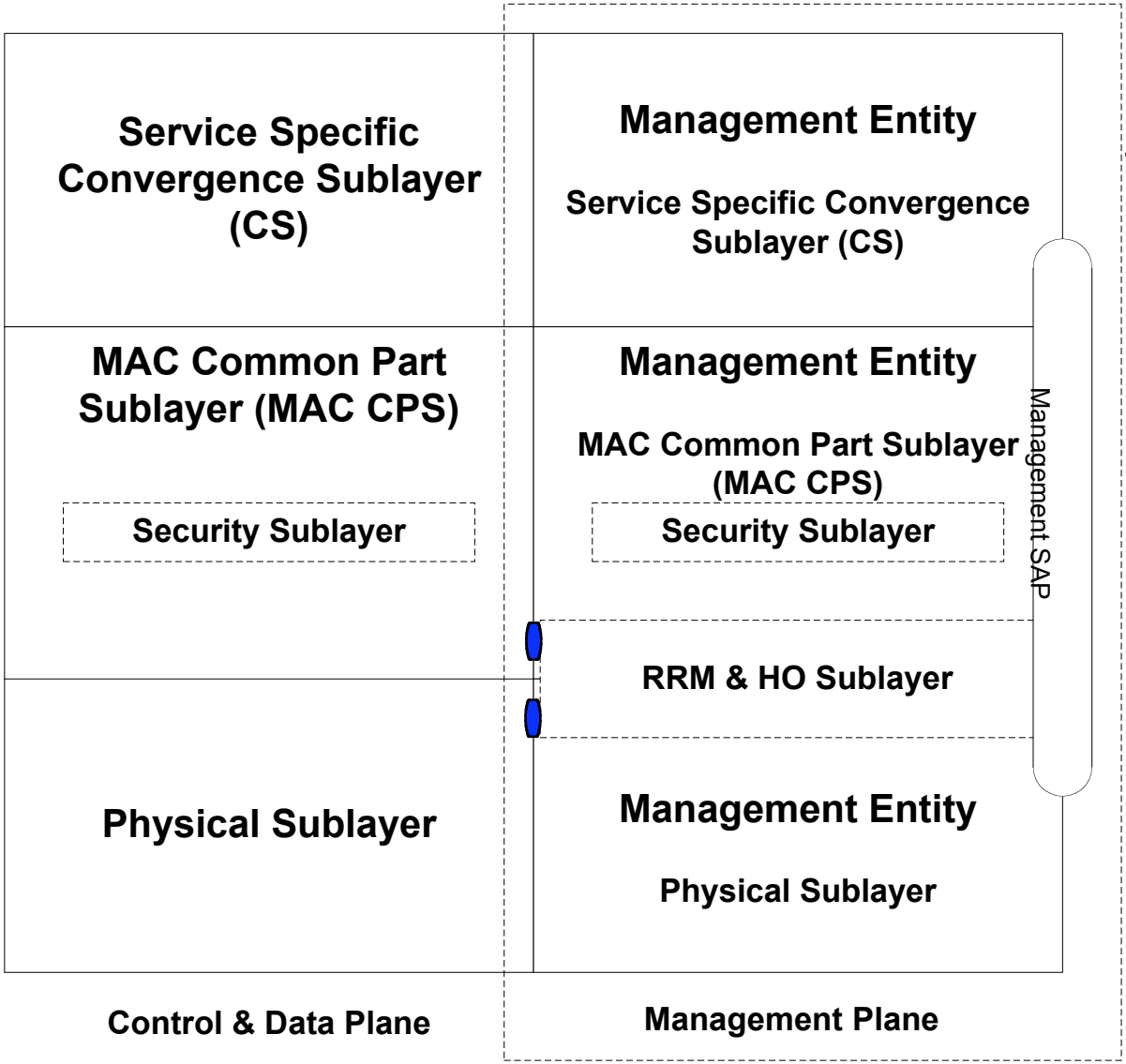
# 802.16g Handover Management Plane



# 802.16g Management Plane Coordination with 802.21

- 802.16 PHY&MAC send HO triggers to 802.16 HO Function
- Different Handover scenarios
  - Intra-802.16 subnet (no IP address change)
    - 802.16 HO Function triggers handover
  - Inter-802.16 subnet
    - Same Domain: 802.16 HO Function sends trigger to mobile IP
    - Different Domain: 802.16 HO Function sends trigger to 802.21 MIH LLCF
  - Inter-technology
    - 802.16 HO Function sends trigger to 802.21 MIH LLC

# 802.16g Specific Reference Model




***Scope of 802.16g***

# Conclusion

- The proposed 802.16 architecture and reference models address both 802.16 specific and higher layer (inter-technology) handoffs
- It is consistent with the proposed 802.21 architecture.
- 802.16 should select one of the logical and physical network architecture models that have been proposed
- Recommend adoption of the proposed reference model for 802.16g
  - RRM&HO sub-layer added to the management plane