Project	**IEEE P802.16 Broadband Wireless Access Working Group** <http://ieee802.org/16>	
Title	**802.16e integration into possible mobile networks**	
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Abstract	The network examples in this presentation provide discussion points for possible existing mobile core networks integration options. In addition, dialog is open for discussion on possible mobile networks using layer 2 core networks.	
Purpose	To provide example core network architectures to validate mobility using 802.16e as a standalone solution and provide a template to validate 802.16e inter-working or integration support.	
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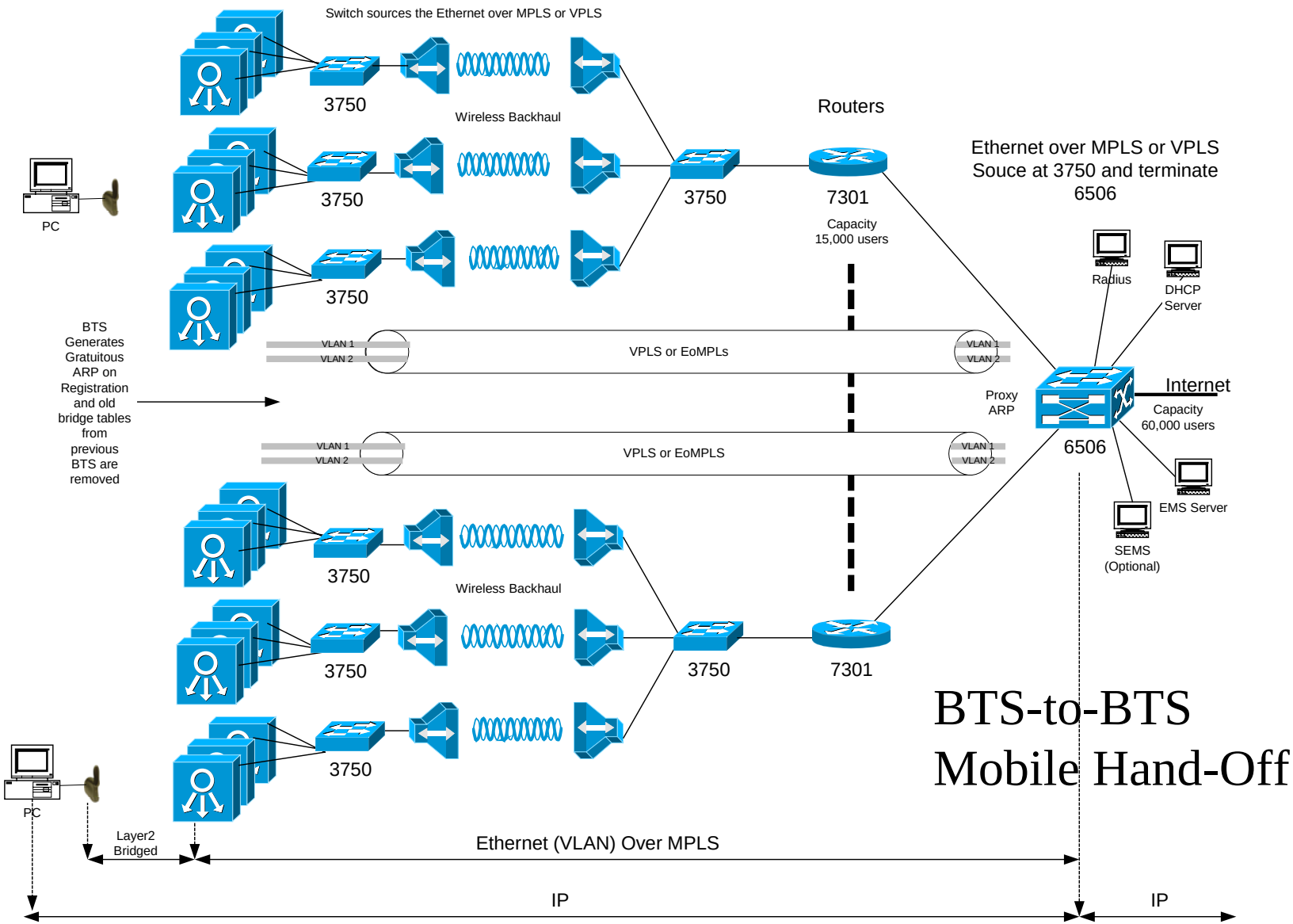
Mobile Broadband Core Networks

- Two Possible Network approaches
  - Green Field
    - TCP/IP based network
    - New designed based on broadband data requirements
    - Utilize off-the-shelf network support with existing standard based solutions.
    - Explore suitable network solutions with mobility performance support
    - Protocol agnostics network management support
  - Existing Mobile Networks
    - Converge at TCP/IP
    - Interface and inter-work with existing standards based solutions
    - Support common, Network Management, Authentication, Roaming techniques

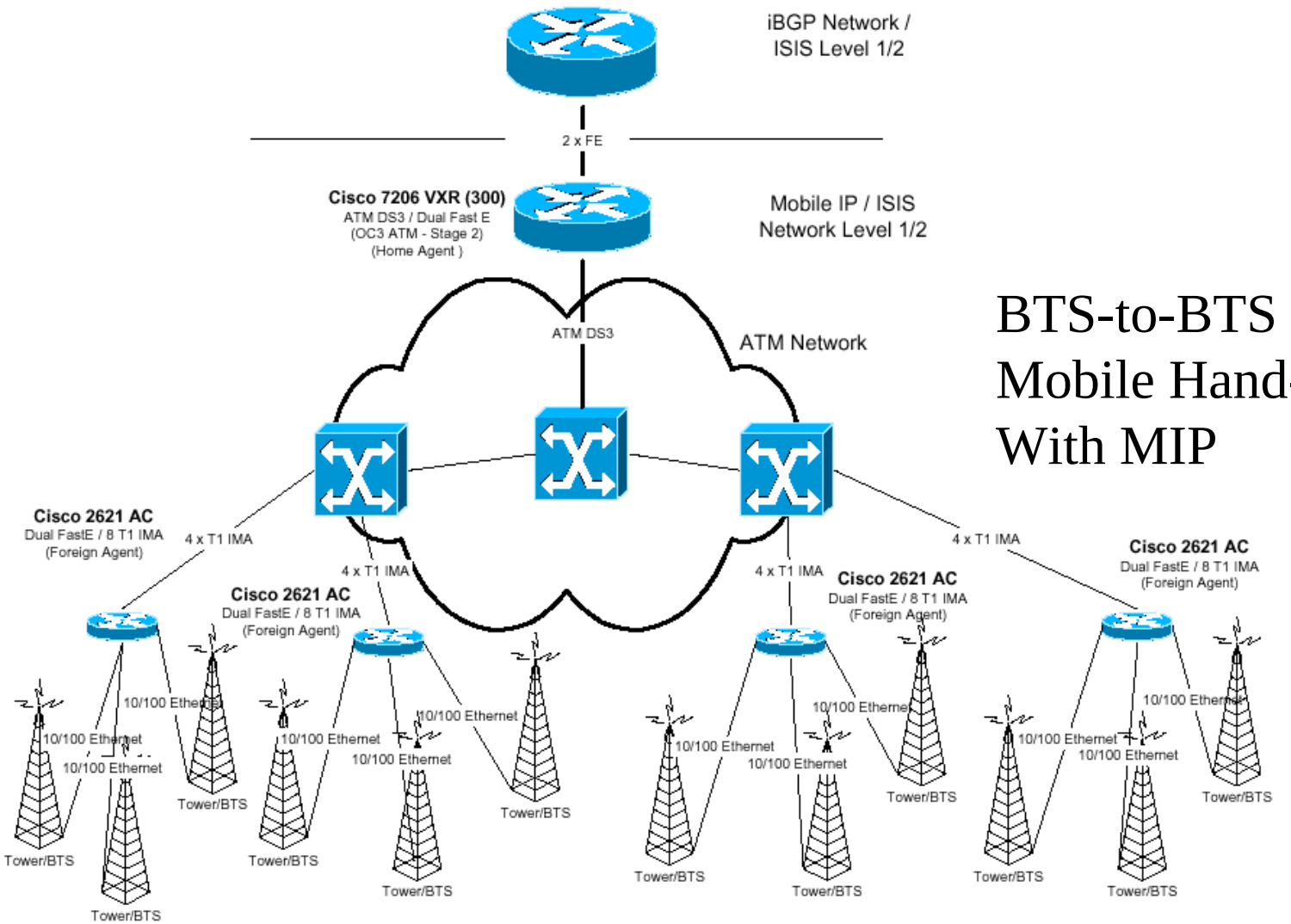
Green Field Mobile Core Examples

Layer 2 Mobile Network



BTS-to-BTS
Mobile Hand-Off

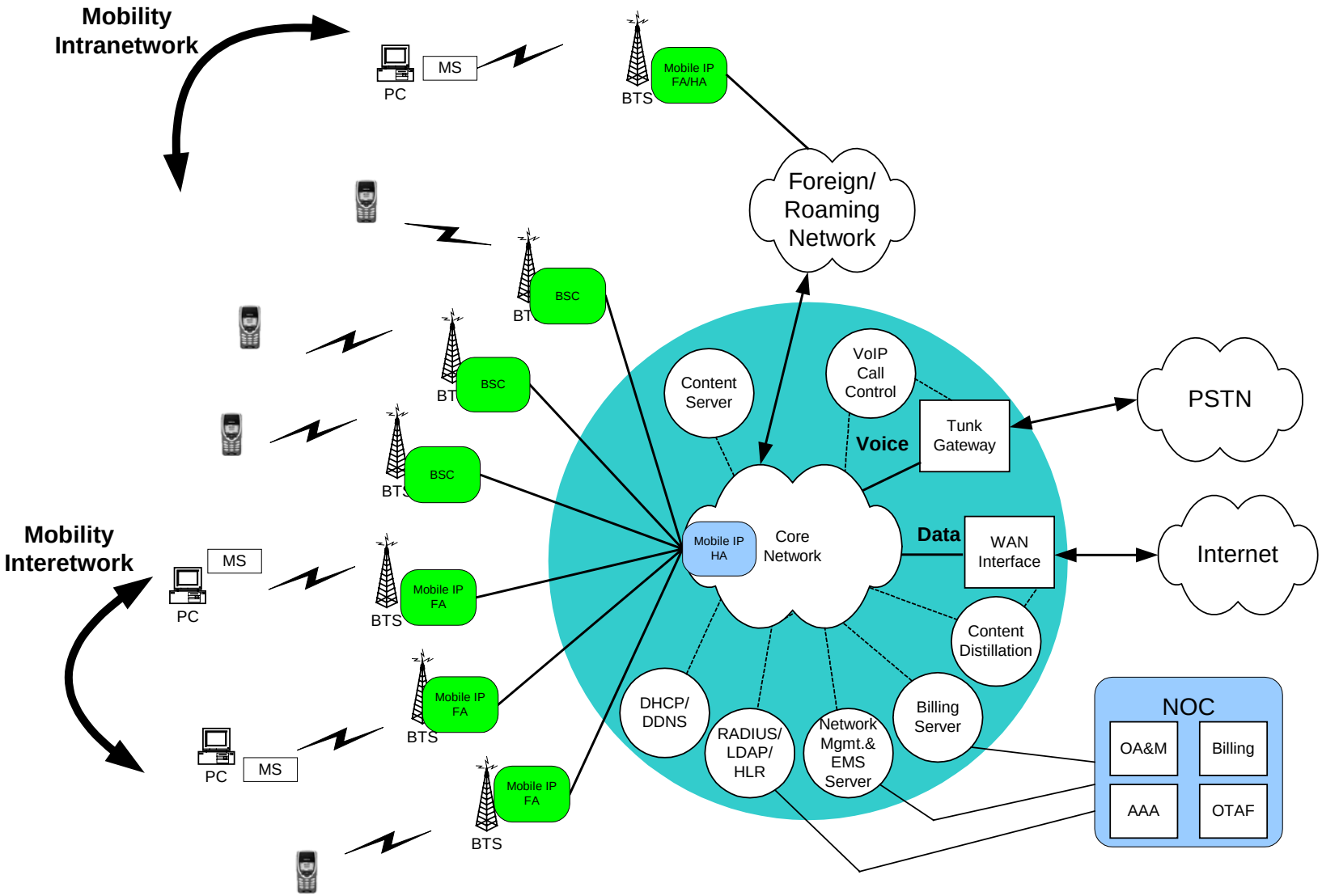
Mobile IP Hierarchical



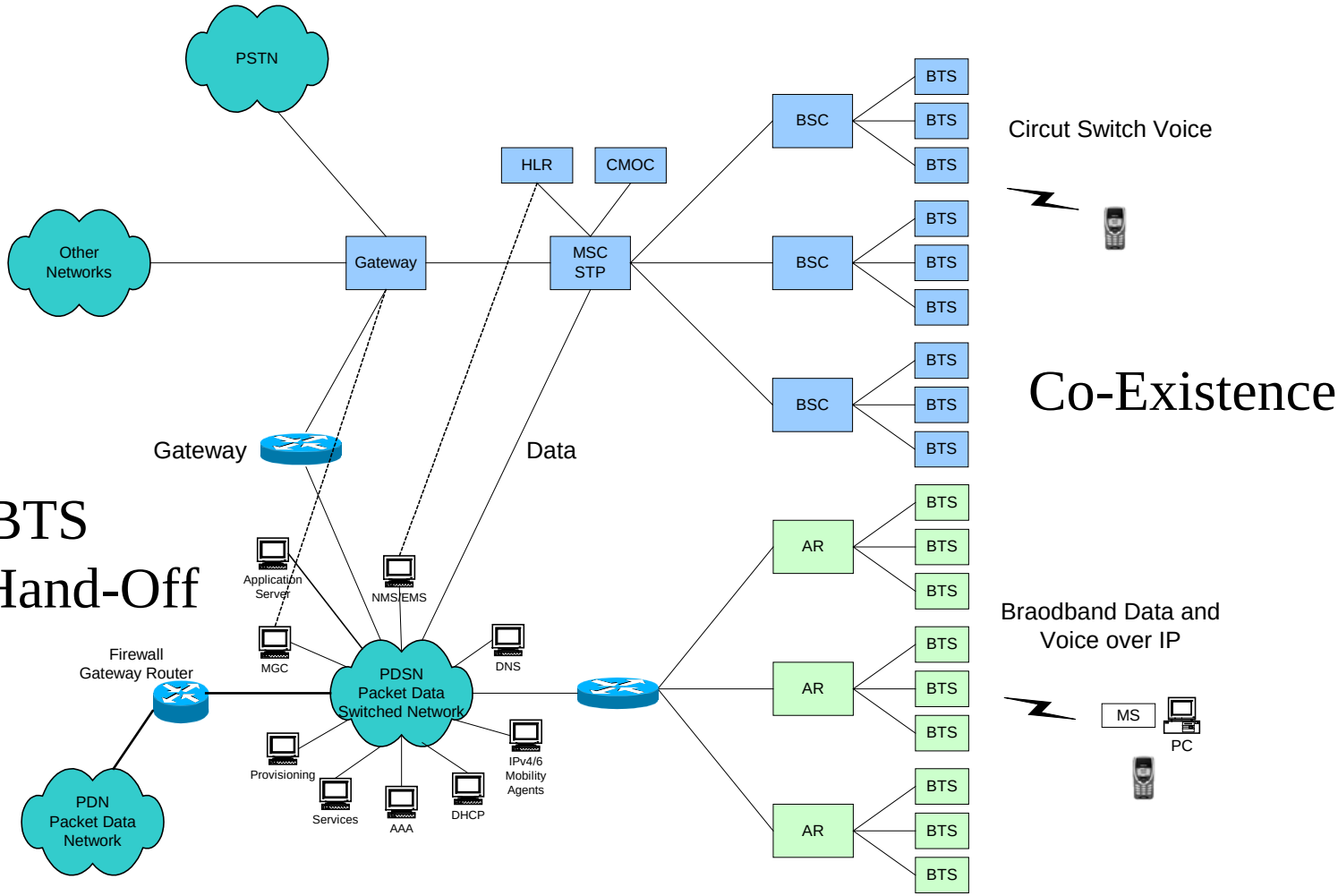
BTS-to-BTS
Mobile Hand-Off
With MIP

Existing Mobile Network Core Examples

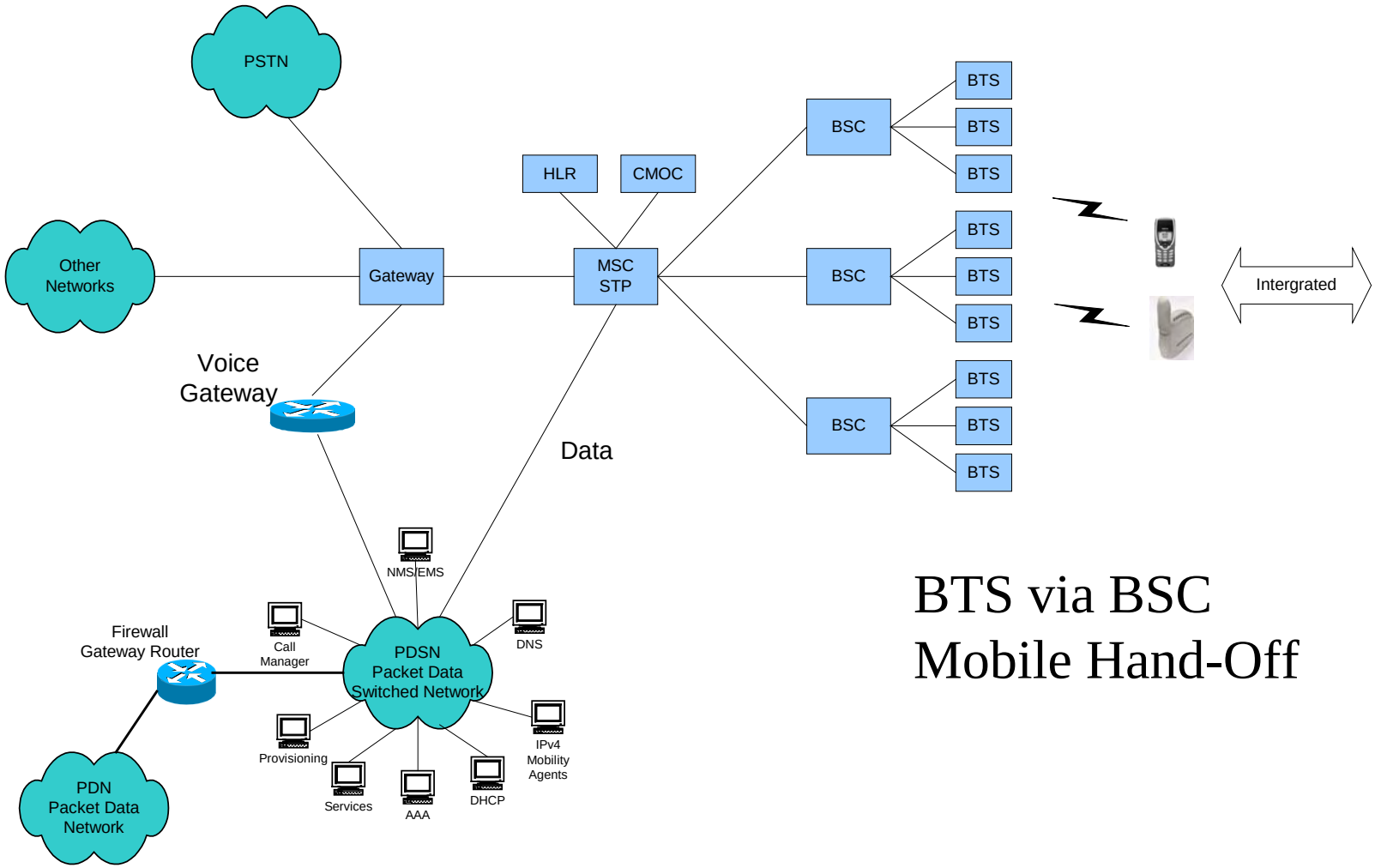
High-Level Common Core Mobile Network



Inter-Working Broadband with Cellular (Detailed)



Broadband Full Integration into Cellular Network



BTS via BSC
Mobile Hand-Off