

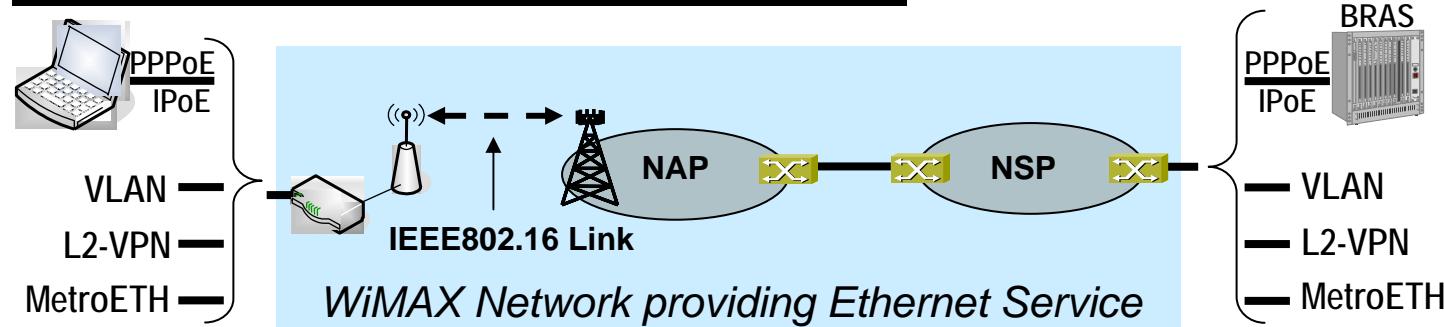


IEEE802.16 fixed/nomadic IP deployment

Max Riegel <maximilian.riegel@siemens.com>, 2006-07-07

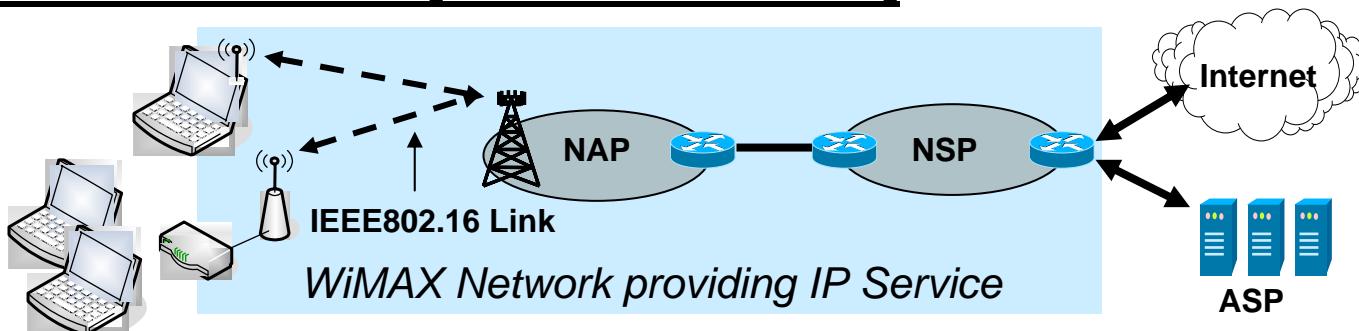
ETH and IP support of IEEE802.16

Ethernet Network Service [ETH-CS]



- The WiMAX network provides plain Ethernet connectivity end-2-end.

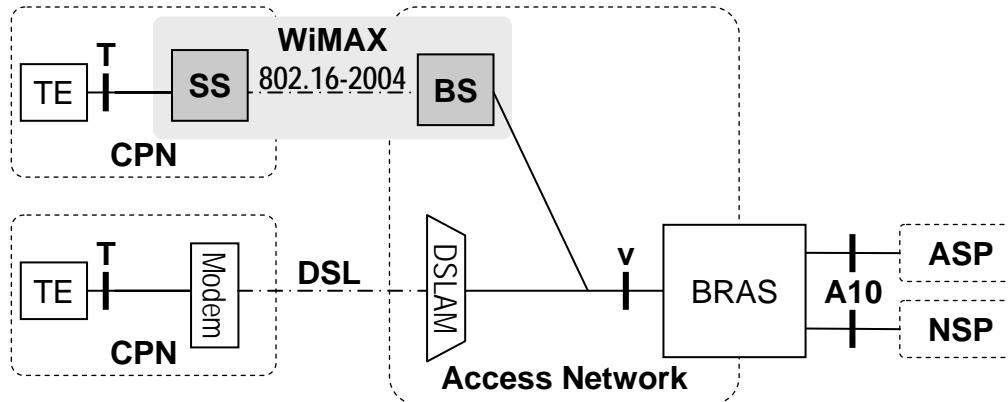
IP Network Service [IP-CS/IPoETH-CS]



- The WiMAX network provides IP connectivity to the Internet and operator services for single hosts or multiple hosts behind a gateway.

Scope of 16ng

Deployment of IEEE802.16 for wireless DSL



PPPoETH

IP	IP
PPP	
PPPoE	
ETH	IP
PHY	LINK
	PHY
802.16	

IP	IP
PPP	
PPPoE	
ETH	IP
PHY	LINK
	PHY
802.16	

IP	IP
PPP	LINK
PPPoE	PHY
ETH	
PHY	

ETH-CS

IPoETH

IP	IP
ETH	
PHY	
802.16	

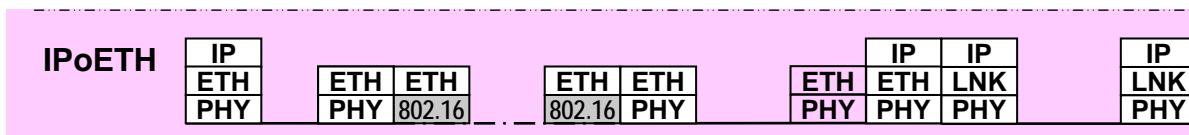
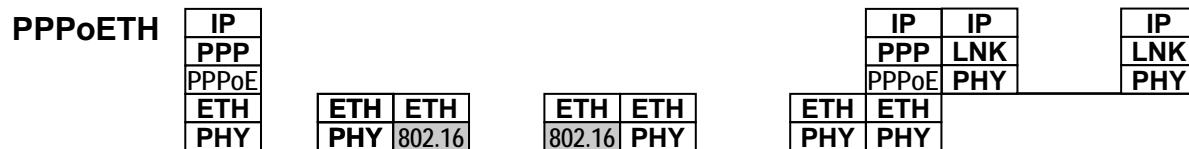
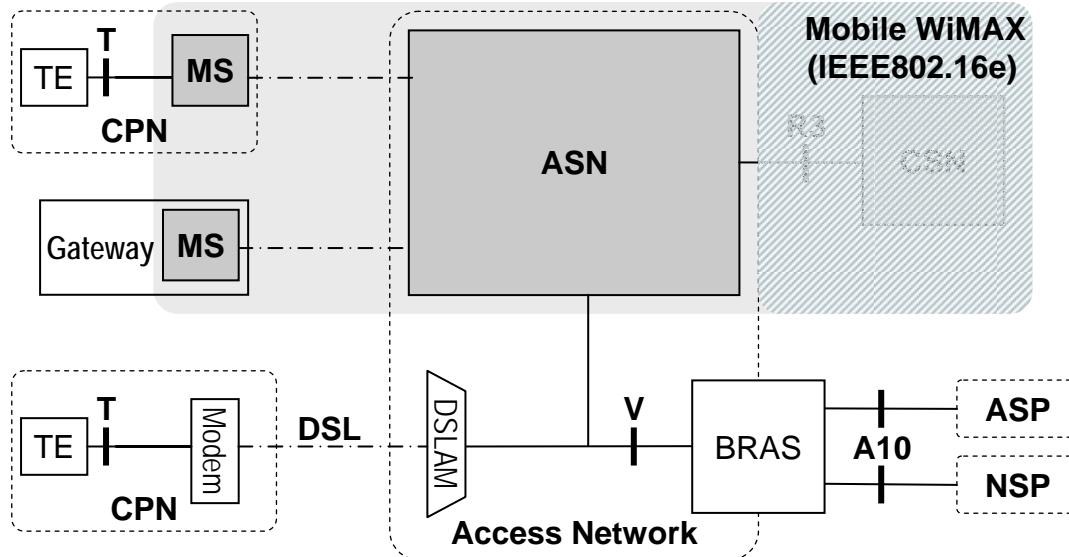
IP	IP
ETH	
PHY	
802.16	

IP	IP
ETH	LINK
PHY	PHY

IPoETH-CS

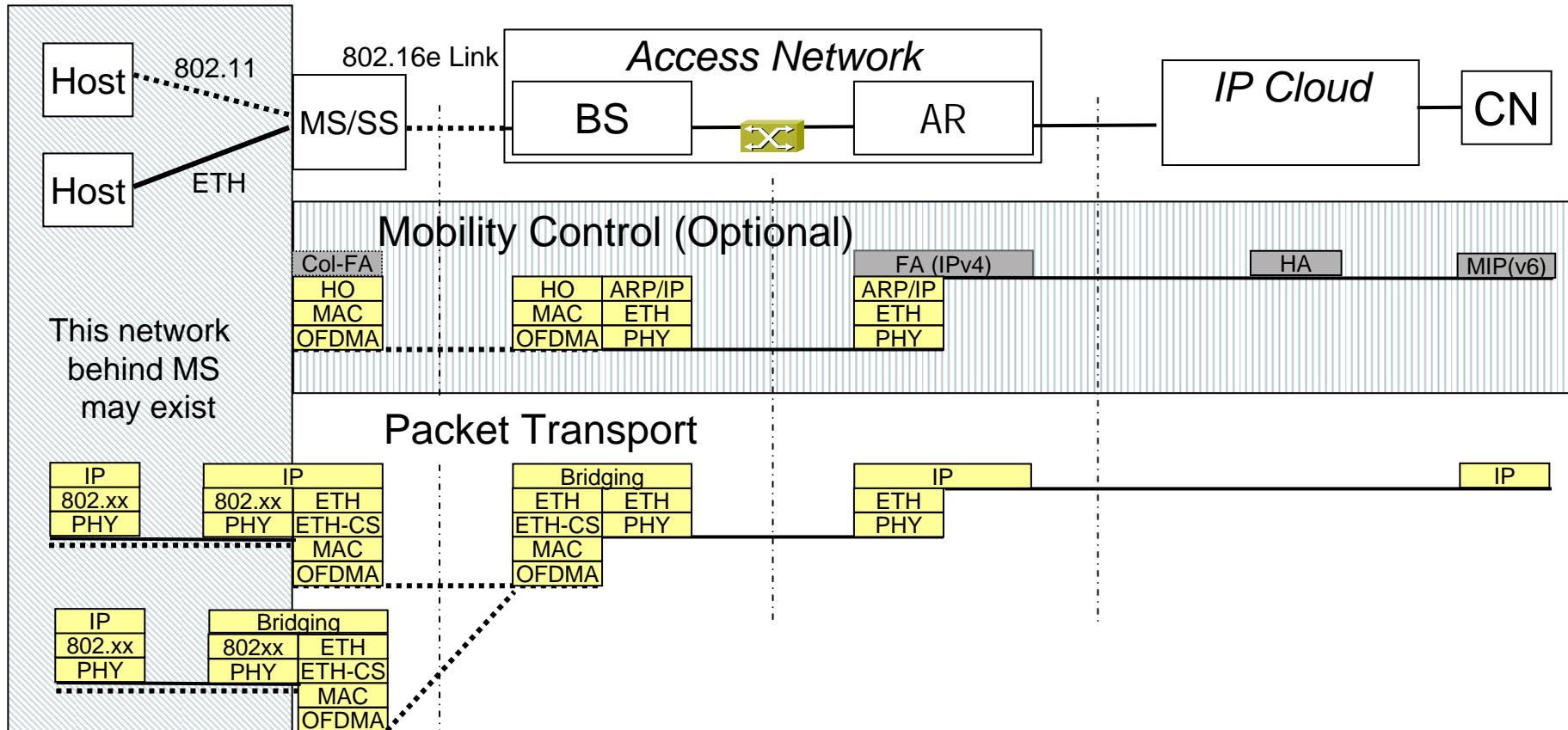
- Wireless DSL based on IPoETH protocol layering is an example of a fixed/nomadic IP deployment of IEEE802.16

IEEE802.16e for fixed/nomadic deployments



- Fixed/nomadic deployments may leverage the benefits of IEEE802.16e

IEEE802.16e Fixed/Nomadic Network



- ❑ **Switched AN uses ETH switching functions to realize link layer transport & mobility inside AN**
- ❑ **Proxy-ARP and ARP filtering and other methods to reduce broadcast/multicast overhead, especially over the airlink.**
- ❑ **Depending on needs, FA may be deployed or Co-located FA/CoA mode can be used.**