



# Advances in Wireless Technologies

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# Fanny Mlinarsky



- ❑ President of octoScope, consulting company focusing on
  - RF and wireless design
  - Network or device architecture
  - Performance verification
  - Product or architecture advocacy
- ❑ Founder and Chief Technology Officer, Azimuth Systems, leading wireless test platform for Wi-Fi and WiMAX test (10/01 – 10/06)
- ❑ R&D Manager, General Manager, Agilent Technologies for the WireScope handheld network certification and monitoring products (10/98 – 10/01)
- ❑ Founder of TGT, 802.11 committee defining test methods and metrics
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Azimuth Test Platform



Agilent WireScope

# ITU-T Framework



**ITU-T** – United Nations telecommunications standards organization

Accepts detailed standards contributions from 3GPP, IEEE and other groups



**IEEE 802.11** – WLAN (wireless local area network)

**IEEE 802.16** – WMAN (wireless metropolitan area network)

**3GPP** – WWAN (wireless wide area network, cellular)

# ITU International Mobile Telecommunications



## □ **IMT-2000**

- Global standard for third generation (3G) wireless communications
- Provides a framework for worldwide wireless access by linking the diverse systems of terrestrial and satellite based networks.
- Data rate limit is approximately 30 Mbps
- Detailed specifications contributed by 3GPP, 3GPP2, ETSI and others

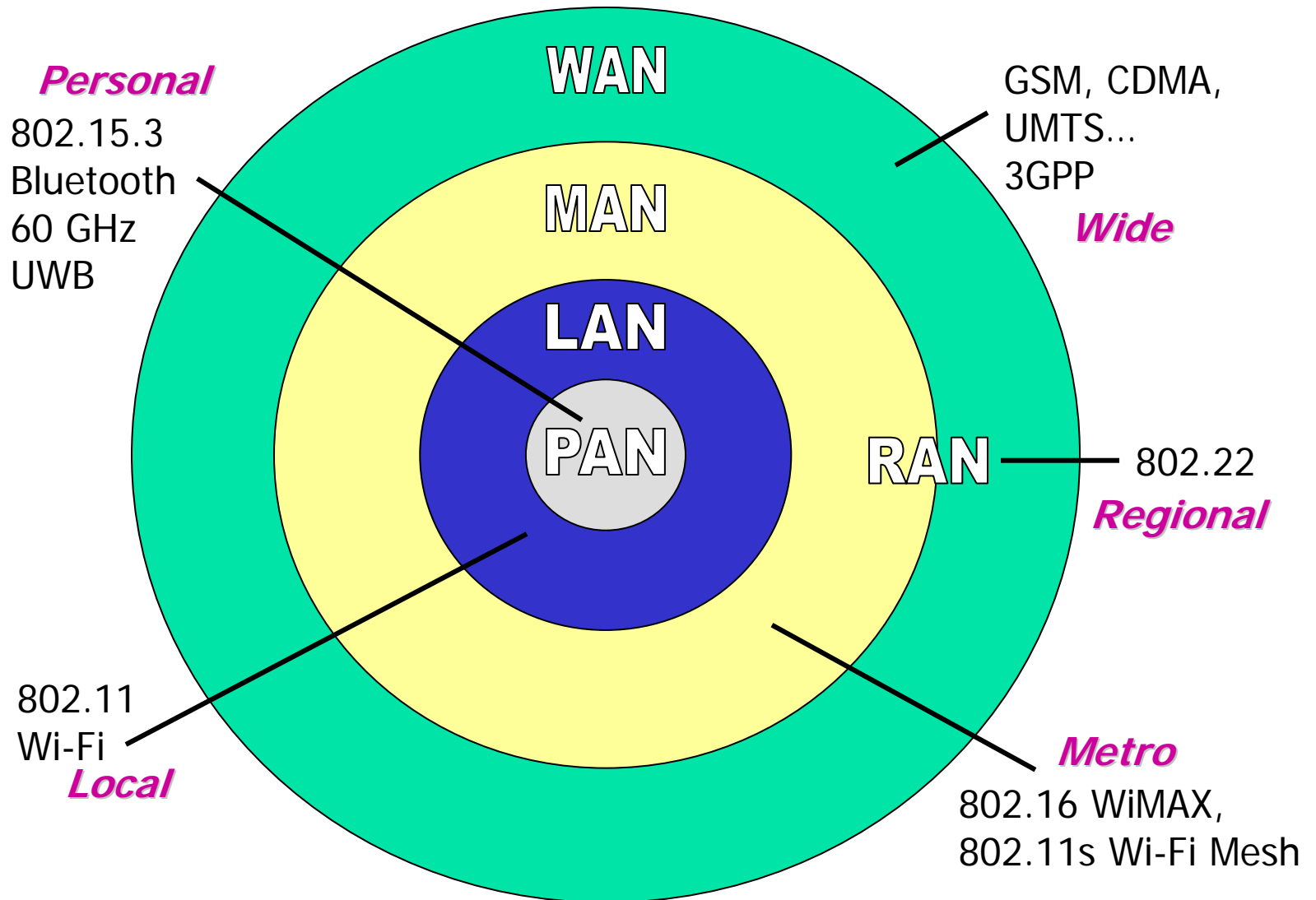


## □ **IMT-Advanced**

- New generation framework for mobile communication systems beyond IMT-2000 with deployment around 2010 to 2015
- Data rates to reach around 100 Mbps for high mobility and 1 Gbps for nomadic networks (i.e. WLANs)
- IEEE 802.16m working to define the high mobility interface
- IEEE 802.11 VHT SG (very high throughput study group) working to define the nomadic interface



# Wireless Communications



# Panelists

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- **John Santhoff**, Founder and CTO, Pulse~LINK
  - Ultra wideband (UWB)
- **Abbie Mathew**, VP BD, NewLANs
  - 60 GHz video transmission
- **Stephen Rayment**, CTO, BelAir Networks
  - Wireless mesh – metro applications
- **Mathilde Benveniste**, Research Scientist, Avaya Labs
  - QoS in wireless mesh networks