



UWB: WPANS & Beyond

Interop, 4.May.05

Mike McCamon

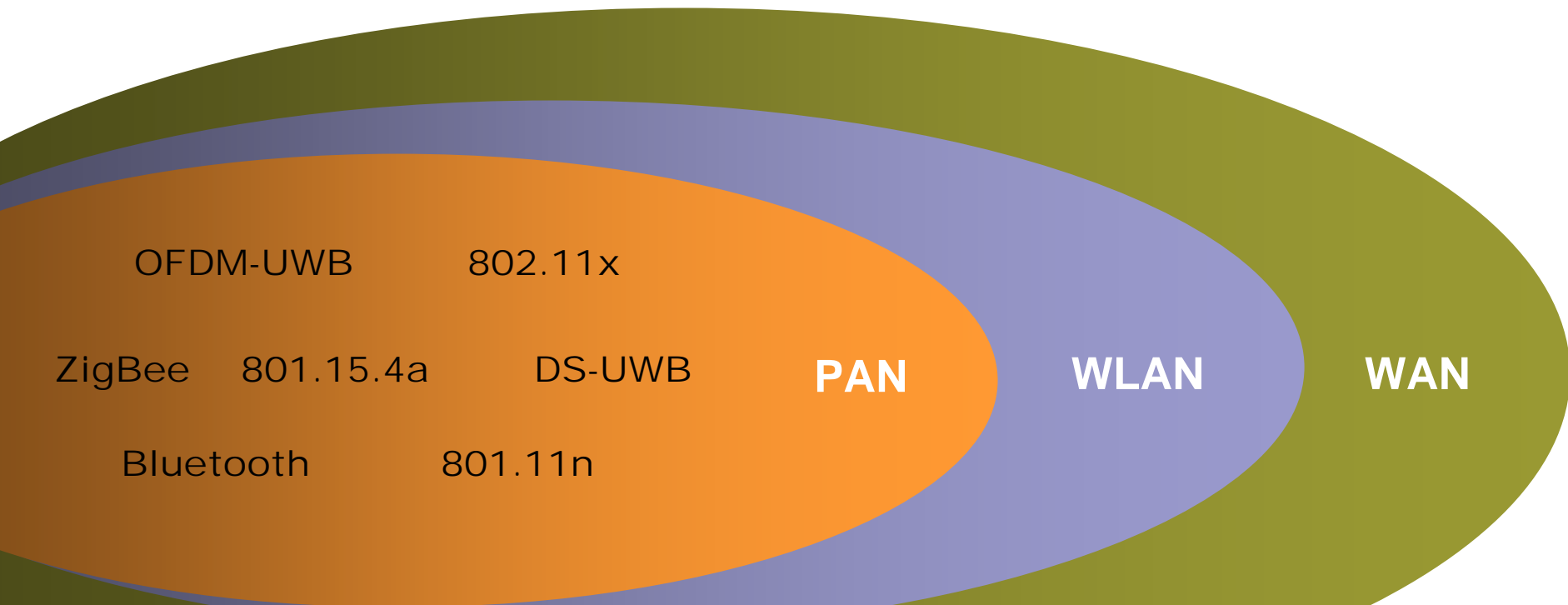
Executive Director, UWB Forum

uwb forum

Wireless Landscape



WPAN market today looks like wired networking market in 1990 - lots of protocols and PHYs



About Ultra-wideband



High data rate, low power, short range, peer-to-peer radio technology for consumer products

Minimum Target is 480Mb at 10m

Certain systems can scale to 2Gb

Markets include mobile phones, computing, consumer electronics and imaging

Streaming and Data transfer applications

Old & New School



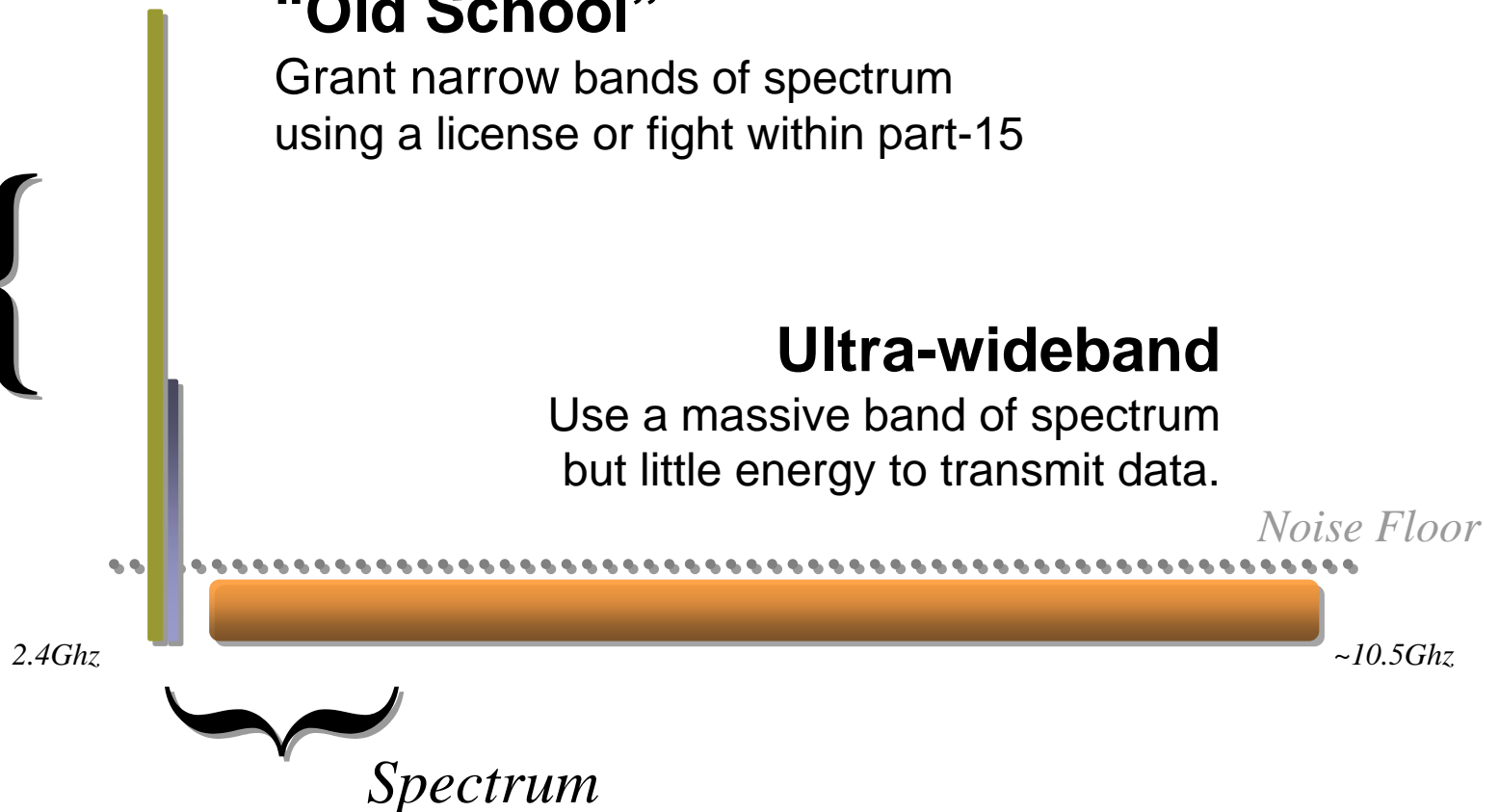
“Old School”

Grant narrow bands of spectrum using a license or fight within part-15

Energy {

Ultra-wideband

Use a massive band of spectrum but little energy to transmit data.



TG3a Civil War



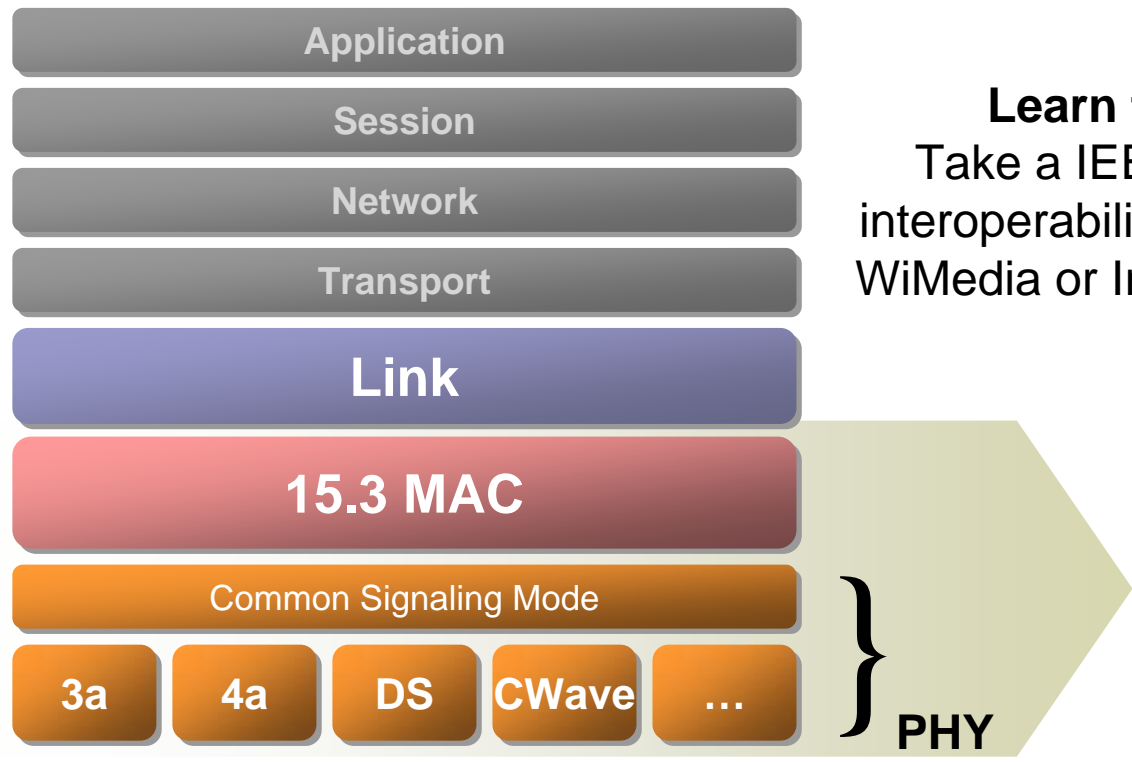
IEEE 802.15.3a is the group tasked to standardize a high rate UWB specification

Deadlocked for over two years between two different and incompatible signaling methods

Proposals have been made to allow interoperability but one voting block has repeatedly rejected idea

Process has devolved to “Let the Market Decide”

Designed for Openness



Learn from Wi-Fi Alliance
Take a IEEE standard and test for interoperability. Not, like the Bluetooth, WiMedia or IrDA with a full specification

Interoperability Testing Suite

Mike's "Ten Finger Rule"



The "market acceptance ability" of a new technology is a decade.

**1st Customer Volumes
Interoperability
Usability
Making it consumable**

**Legitimate Consumer Volumes
Cottage Industries
Expectation of Integration
Consumer Awareness**



**Yrs 1-5
"Getting it Right"**



**Yrs 6-10
"Righting the Get"**

Message: I'm afraid, writing the specification is the easy part."

Getting Involved



IEEE 802.15.3a: Cool meeting locations, often frustrating politics with excellent Wi-Fi access.

WiMedia/MBOA: Focused on developing own specification targeted for Wireless USB solutions.

UWB Forum: Open, inclusive forum for “all things UWB”. Highly desires to include IEEE specs into plans with Common Signaling Modes and Interop certification programs. www.uwbforum.org