Introducing MoCA Access™

June 14, 2017
Alliance Overview

• Alliance established in 2004.
• Fastest and most reliable home networking technology available.
  • Actual throughputs (MAC) of 1 Gbps (MoCA 2.0) and 2.5 Gbps (MoCA 2.5).
  • Uses existing coaxial cabling. Not dependent on type or age of wiring.
  • It just works.
• Home networking technology in deployment by cable MSOs, satellite and telcos worldwide.
• 220 certified products
• 40 members
• Now entering into broadband access market!
MoCA Technology Timeline

**MoCA 1.0 Field Tests**
- Demonstrated 100+ Mbps net throughputs in 97% of all outlets
- 250 homes (U.S.)

2005

**MoCA 1.0**
- 100 Mbps net throughputs
- 850-1500 MHz operating frequency

2006

**MoCA 1.1**
- 175 Mbps net throughputs
- PQoS

2007

**MoCA 1.1 Extension**
- Expanded operating frequency to accommodate satellite operators 500 – 1500 MHz

2008

**MoCA 2.0 Field Tests**
- Demonstrated 400 Mbps net throughputs in 90% of all outlets
- 212 Homes (U.S.)

2009

**MoCA Access**
- Based on MoCA 2.0/2.5 specification

2010

**MoCA 2.0**
- 400/800Mbps/1Gbps net throughputs
- One packet error (PER) in 100 million
- Sleep and standby power modes
- Expanded operating frequency 500-1650 MHz
- Backward interoperable

2011

**MoCA 2.5**
- Up to 2.5Gbps net throughputs
- MoCA protected setup (MPS)
- Management proxy
- Enhanced privacy
- Network-wide Beacon Power
- Bridge detection
- Backward interoperable

2012

**MoCA Wi-Fi® Mesh Field Tests**
- MoCA 2.0 800 Mbps in 100% of homes
- MoCA 2.0 900 Mbps in 75% of homes
- Orbi 300 Mbps in 50% of homes
- Eero and Plume less than 200 Mbps

2013

2014

2015

2016

2017

MoCA Makes Wi-Fi™ Better
Introducing MoCA Access™

- Based on MoCA 2.5 specification.
- Throughput is 2.5 Gbps downstream and 2 Gbps upstream.
- Latency less than 5ms.
- Point-to-multipoint serving up to 63 modems (clients).
- Works over existing in-building coaxial wiring.
- Operating frequency range of 400MHz - 1675MHz.
- Co-exists with TV, DOCSIS and cellular (4G/5G) technologies.
- Supports standard traffic shaping and QoS up to eight (8) traffic classes.
- Strong security support.
- Three transmission power modes with 45dB, 55dB or 65dB link budgets and power saving modes.

Reports the maximum aggregation capabilities of all the Nodes
Reports the PHY rates and burst overheads of all the li
MoCA Access–Fiber Extension over Coax
MoCA Access for any type of coax networks

**Star-Cascade Network**
- Several RF bands
- Coax Link Controller with Diplexer filter
- One coax cable loop

**Tap-Cascade Network**
- Single RF band
- Fiber in → TV in

**Star-Network**
- One RF band per outlet
- Fiber in → TV in
Multiple Frequency Profiles

- **Band A-A (500 MHz)**
  - 100 MHz channels
  - Channels: Chan 1, Chan 2, Chan 3, Chan 4, Chan 5

- **Band A-C (650 MHz)**
  - 100 MHz channels
  - Channels: Chan 1, Chan 2, Chan 3, Chan 4, Chan 5

- **Band A-E (300 MHz)**
  - 100 MHz channels
  - Channels: Chan 1, Chan 2, Chan 3

**CATV + DOCSIS3.1**

- Frequency range: 54 MHz to 1675 MHz
- Bandwidth: 157 MHz
Applications

- Operators driving fiber deep into the network or to the building (FTTB) and want to leverage the existing coaxial wiring without sacrificing performance.
- ISPs deploying fiber-based networks that terminate the optical signal in the basement and use the existing coax to reach each unit or apartment.
- Wired backhaul for 4G and eventually 5G cellular service.
- Hotels, hospitals, restaurants, offices and any building with existing coax.
Summary

- Fiber extension technology using existing in-building coax.
- Based on MoCA 2.5 specification.
  - Throughput is 2.5 Gbps downstream and 2 Gbps upstream.
  - Latency less than 5ms.
- Point-to-multipoint serving up to 63 modems (clients).
- Operating frequency range of 400MHz - 1675MHz.
  - Co-exists with TV, DOCSIS and cellular (4G/5G) technologies.
- Available to members now.