

# DAVIC Standards Overview

George Hendry

Stanford Wireless Broadband Inc.

# Ground Rules

- I have been asked to status the DAVIC LMDS spec not defend it
- I am not totally enamored with DAVIC 1.4 so don't browbeat me over its deficiencies
- We intend submitting a proposed update based on our implementation
- On the other hand, DAVIC does represent a lot of work by a lot of people over 5 years so it merits careful review before we “re-invent the wheel”.

# DAVIC Organization

- Established in 1994
- currently 167 members from more than 25 companies, representing all sectors of the audio-visual industry
- aim is to promulgate open interfaces and protocols that maximize application and service interoperability

# DAVIC Organization (cont)

- funded by member contributions
- small staff in Milan (web site) and Switzerland
- most positions are contributions of members time
- three technical committees - Applications, System Integration, Content/API/Security
- DAVIC focuses on specs for multimedia services based on both IP and broadcasting tools such as MPEG

# DAVIC Process

- DAVIC has issued a series of 5 backwards compatible specifications
- each specification has 14 parts - PART 8 has LMDS/MMDS Physical layer spec
- new elements are added to the various parts through “calls for proposals”
- Each Tech Committee meets once per quarter to review proposals
- Proposals go into baselines after Tech reviews
- Baselines are published on the web site and then frozen at the next meeting (hopefully)

# Content of Part 8

- Passband Physical layer
  - supports uni and bi directional transmissions
  - caters to ATM and MPEG frames on the same channel
  - defines error correction strategies, modulation types and physical interfaces
  - channel spacing and bandwidths
  - IF frequencies, spectral masks, phase noise

# Part 8 (cont)

- MAC Protocol
  - full message set is defined to support:
    - network entry
    - time slot types and allocation
    - polling
    - session connection and maintenance

# Part 8 (cont)

- Interfaces
  - electrical and data interfaces with the network (NIU)
  - electrical and data interfaces with customer premises (STU)
  - upstream/downstream headend to Network interfaces
  - caters to:
    - single enclosure NIU + STU
    - multiple NIUs to one STU
    - single NIU to multiple STUs

# Status of DAVIC Specification

- DAVIC 1.5 is scheduled for final review in January 1999
- DAVIC 1.4 was “frozen” in March 1998 and released in September
- DAVIC 1.1, released September 1996, contained LMDS and MMDS physical layer standards
- there have not been any changes to LMDS/MMDS since release.