Ethernet in the First Mile
IEEE 802.3 Ethernet in the First Mile Study Group

IEEE 802.efm
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Some Fundamentals of Marketing

1. Better to know where to find PowerPoint “whoosh” sound, than to recite the OSI stack from memory.

2. Thou shalt not use Courier in PowerPoint.

3. If you’re not careful, they might assign you to a team that has to do something.
Some Fundamentals of Engineering

1. Plan it.

2. Build it.

3. Work 24x7 to debug until marketing takes credit for it.

“We” did it!
RII is not “like roads” or “like TV” … if it’s like anything, it’s “like phones” … SYMMETRIC … ‘peer-to-peer’ for those just catching on.

Communication ≠ Transportation
RII is NOT:
- “a natural government monopoly”
- “like state TV”
- did I mention NOT “like roads?”
RII is like:

Trench Warfare.
Better really understand customer premises issues.

CAUTION:
GigabitGarage.NET Crossing
Better **do better** than local utilities

Beyond Broadband MPOE?

Termination Box
Dual SC to the home.

Interior MPOE
Provisioning?

Local Internet Exchange (LIX\textsuperscript{sm})
- DWDM and Ethernet, period.
- IP Central Office
- IPv6 (TRIAD?)
- Ethernet VoD, Ethernet TV & Radio
- Ethernet video conferencing
- Ethernet refrigerator

Better **really** understand provisioning and billing issues, but are these the domain of 802.x?
What Howard Asked Us To Do

1) The need for, purpose, and scope of a project for EFM.

2) Justification for the project in terms of its market potential, compatibility with 802 standards, distinct identity, technical feasibility, and economic feasibility.

3) Objectives that the EFM study group should consider for the project.
The need for, purpose, and scope of a project for EFM.

- **Need:**
  Does EFM need to actually build anything? Perhaps it could validate existing efforts as “EFM Approved” architectures.

- **Purpose:**
  Quick (5-10 yr.) and Merciful (more or less orderly) Death for SONET and ATM.

- **Scope:**
  Something along the lines of a 50,000 home residential and mixed use development.
Justification for the project

- **market potential:**
  Potential? It’s kinetic.

- **compatibility with 802 standards:**
  IEEE assure integrity of Ethernet “brand.”

- **distinct identity:**
  802.x within 900’, or even 9’ is not “all Ethernet.”

- **technical feasibility:**
  100%. It’s already working. Expand the base.

- **economic feasibility:**
  Price of leadership has never been cheap.
Objectives that the EFM study group should consider for the project.

- **Protection of “Ethernet” identity in ETTH**
  Ethernet within 900’, or even 9’, is NOT ETTH!!! Define “IEEE–EFM Approved” architectures.

- **Eschew Obfuscation**
  Do we really need 802.efm? Is anything fundamental really missing?

- **Address decommissioning of RJ–11**
  In new housing starts.

- **Promote more widespread use of RJ–45**
  Amongst TV, radio, set-top, and appliance vendors, as the universal interface for the eventual single pipe network.
ETTH – Ethernet To The Home

• It’s expanding in Palo Alto.
• Green fields want it.
• No longer a question of whether, where, or when ETTH.
• Merely a question of where ETTH is building next and how to ensure that standards are enforced and identities preserved.
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Thank You!

A new kind of neutral, beyond-broadband Managed Access Network Operator.

ETTH – Ethernet To The Home™

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