ANOTHER PIECE OF EEE

An additional requirement for Energy Efficient Ethernet
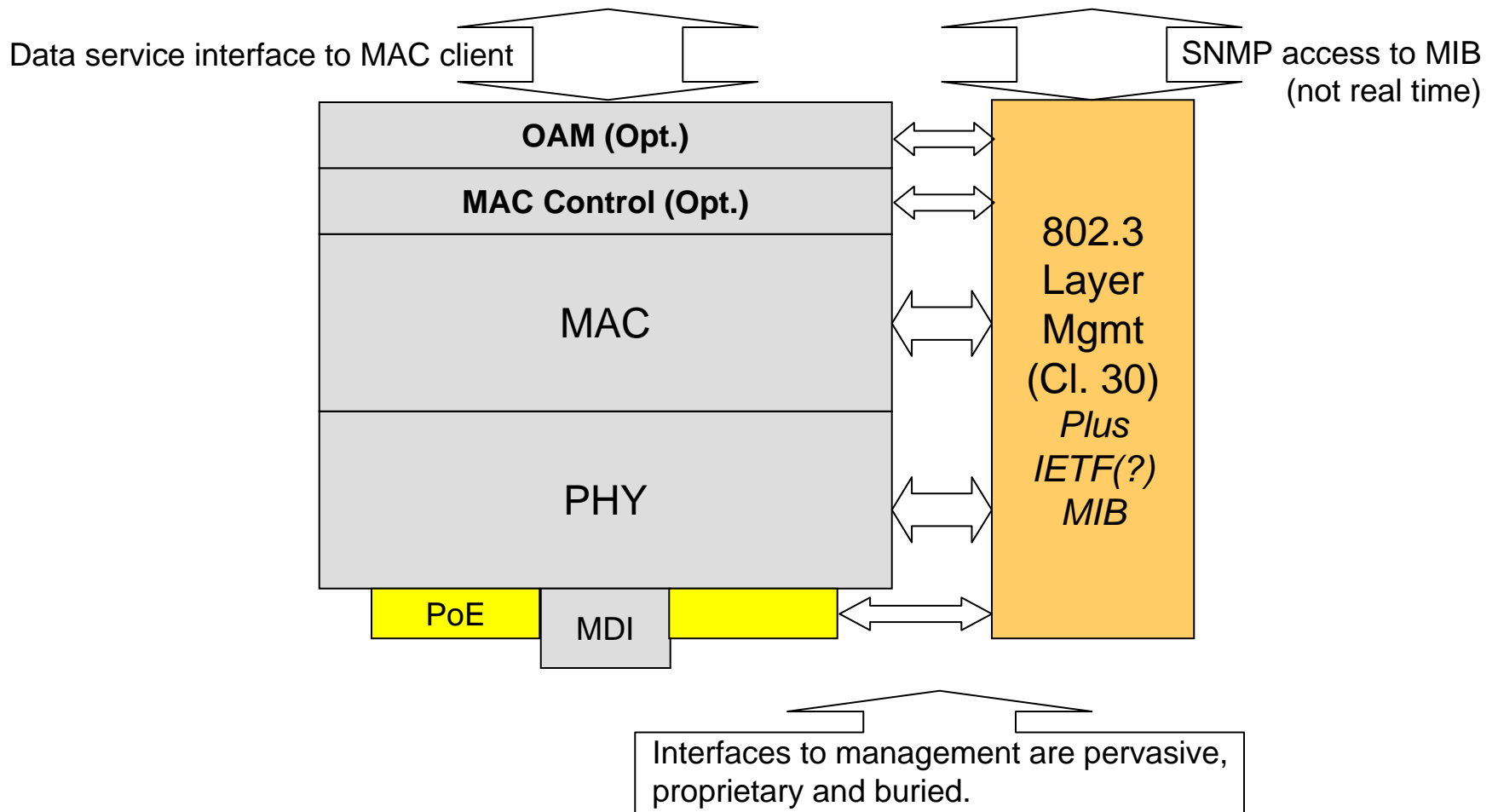
Geoff Thompson

Nortel

Presented to 802.3az

Atlanta, November, 2007
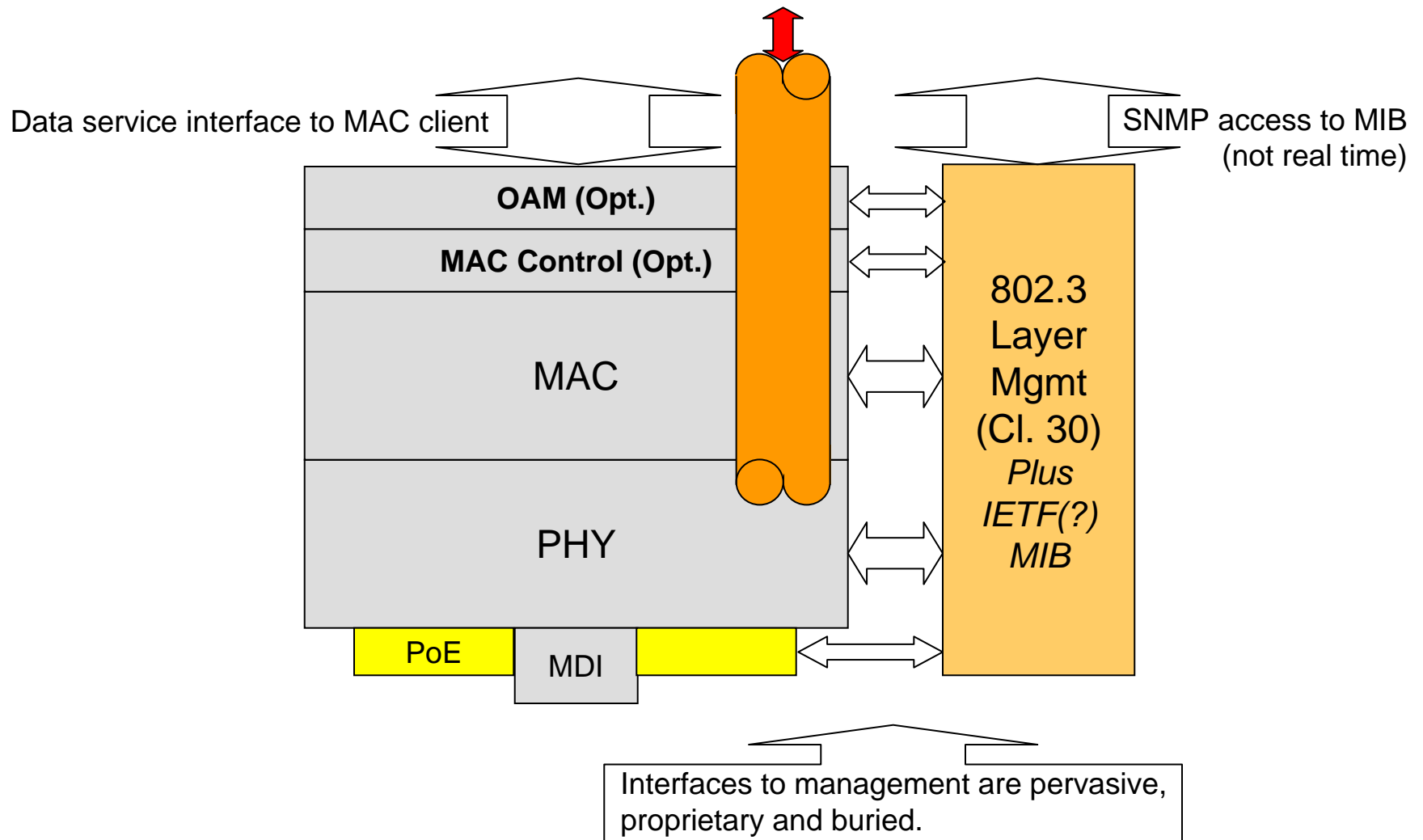
802.3 Model
(for discussion purposes)

Data service interface to MAC client

SNMP access to MIB
(not real time)

| OAM (Opt.) |
| MAC Control (Opt.) |
| MAC |
| PHY |

802.3 Layer Mgmt (Cl. 30) *Plus IETF(?) MIB*

PoE | MDI

Interfaces to management are pervasive, proprietary and buried.

New interface required

- New interface needed for EEE
- From upper layers to PHY
- "Gear shift": Tell PHY when to shift speeds
- Operates in real time
- (Sub-layers above PHY need not be involved, signals just pass through)
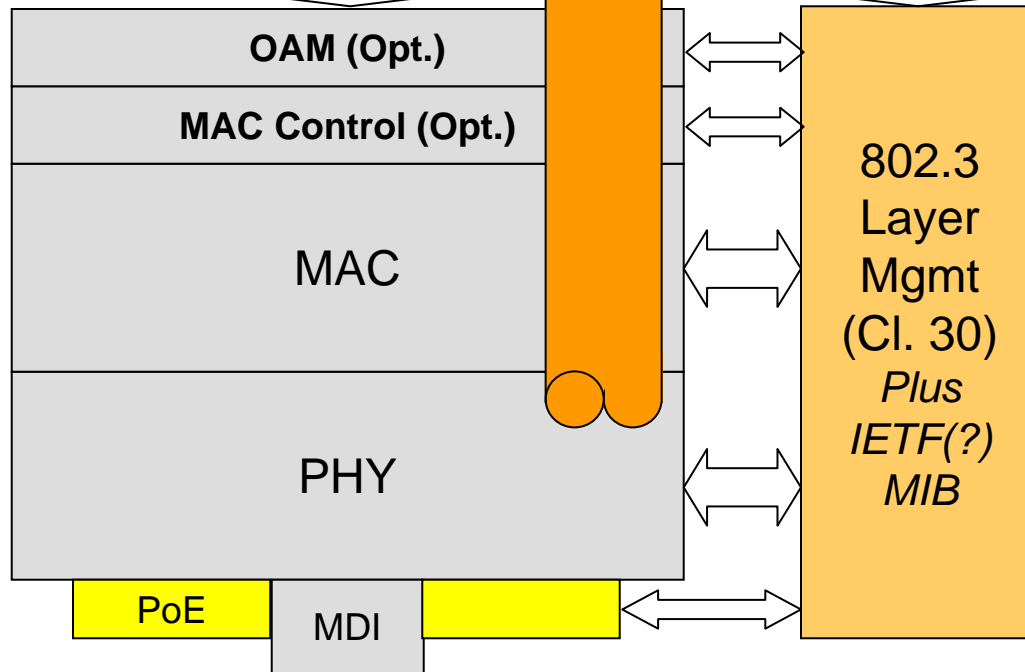- Shown in orange on next slide

New interface goes here

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(not real time)

OAM (Opt.)

MAC Control (Opt.)

MAC

PHY

PoE MDI

802.3
Layer
Mgmt
(Cl. 30)
*Plus
IETF(?)
MIB*

Interfaces to management are pervasive,
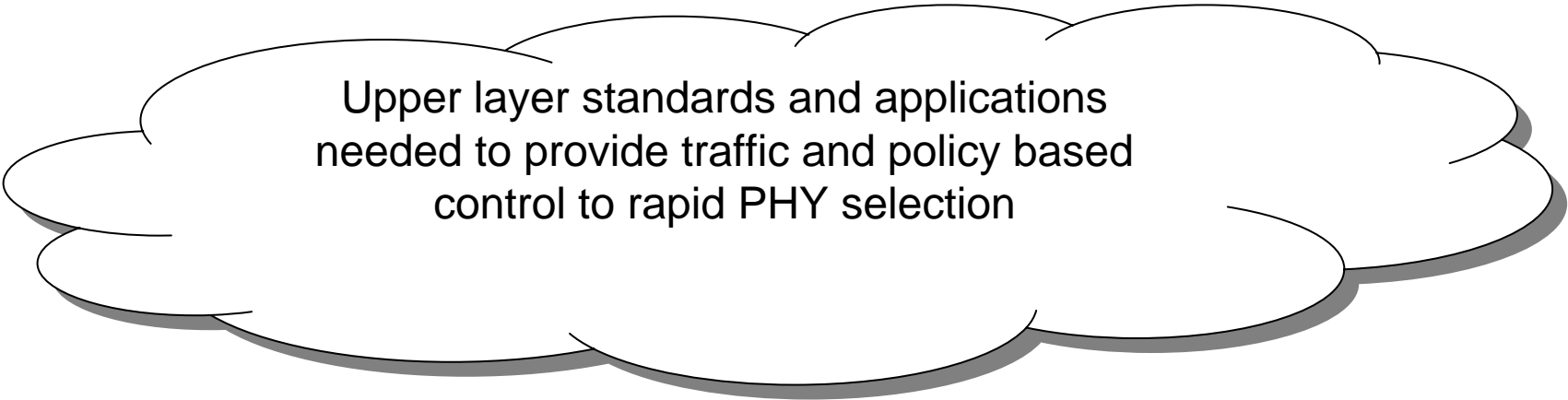proprietary and buried.

Upper layer standards and applications
needed to provide traffic and policy based
control to rapid PHY selection

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802.3
Layer
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Interfaces to management are pervasive,
proprietary and buried.

Upper layer standards and applications
needed to provide traffic and policy based
control to rapid PHY selection

Our project will FAIL if this is proprietary !

This is outside the scope of 802.3

- **Because the application has to be able to include control of devices like this:**

➔ ➔ ➔ ➔ ➔

CONTROL POWER OVER YOUR NETWORK

SERIAL   NET

TOTAL PHASE
CURRENT DRAW

30

FEATURES

- Secure HTTPS
- Encrypted Password Protection
- Ping Watchdog
- IP Addressable Outlet Control
- Control power with a web browser, telnet, serial, SNMP
- 100-240 volt operation, 20-30 amp input circuit
- Up to 24 Outlets On/Off/Reboot Control
- Outlet Grouping and Naming
- Current and Voltage Monitoring
- Email Alerts of Events
- Temperature and Humidity Monitoring
- Contact Closure (door/water) sensors