IEEE P802.3ah EFM Task Force Objectives
As Approved by IEEE 802.3 CSMA/CD WG
14-March-2002

• Support subscriber access network topologies:
  o Point to multipoint on optical fiber
  o Point to point on optical fiber
  o Point to point on copper

• Provide a family of physical layer specifications:
  o 1000BASE-LX extended temperature range optics
  o 1000BASE-X >= 10km over single SM fiber
  o 100BASE-X >= 10km over single SM fiber
  o PHY for PON, >= 10km, 1000Mbps, single SM fiber, >= 1:16
  o PHY for PON, >= 20km, 1000Mbps, single SM fiber, >= 1:16
  o PHY for single pair non-loaded voice grade copper
distance >=750m and speed >=10Mbps full-duplex

• Optical EFM PHYs to have a BER better than or equal to
  $10^{-12}$ at the PHY service interface

• Include an optional specification for combined operation
  on multiple copper pairs

• Support far-end OAM for subscriber access networks:
  o Remote Failure Indication
  o Remote Loopback
  o Link Monitoring

• The point-to-point copper PHY shall recognize
  spectrum management restrictions imposed by
  operation in public access networks, including:
  o Recommendations from NRIC-V (USA)
  o ANSI T1.417-2001 (for frequencies up to 1.1MHz)
  o Frequency plans approved by ITU-T SG15/Q4,
    T1E1.4 and ETSI/TM6