What is P1904.1?

An Introduction for P802.3

P1904.1 – a brief primer

- P1904.1 Working Group
  Service Interoperability for Ethernet Passive Optical Networks (SIEPON)
  - A new WG established by REVCOM on Dec 9th 2009
    - Sponsor: ComSoc
    - Chair: Glen Kramer
  - First meeting held Feb 8-10 2009
  - Website:
    http://www.ieee1904.org/1/
  - Public e-mail reflector:
    http://www.ieee1904.org/1/subscribe_pub.html

Why SIEPON?

- Large service providers and/or regional bodies may generate (and some already have) proprietary specifications
  - But proprietary specifications can fragment the market if they differ to much
- Small service providers do not have the resources to generate their own system level specifications
- A single base system-level specification will result in broader market acceptance for Ethernet PON products

P1904.1 PAR

- Purpose:
  To build upon the IEEE 802.3ah (1G-EPON) and IEEE 802.3av (10G-EPON) Physical layer and Data Link layer standards and create a system-level and network-level standard, thus allowing full plug-and-play interoperability of the transport, service, and control planes in a multi-vendor environment.

http://www.ieee1904.org/1/documents/P1904_1_PAR.pdf

P1904.1 PAR (cont)

- Scope:
  This standard describes the system-level requirements needed to ensure service-level, multi-vendor interoperability of Ethernet Passive Optical Network (EPON) equipment. The specifications complement the existing IEEE Std. 802.3 and IEEE Std. 802.1 standards which ensure the interoperability at the Physical layer and Data Link layer. Specifically included in the proposed work are:
  - EPON system-level interoperability specifications covering equipment functionality, traffic engineering, and service-level QoS/CoS mechanisms;
  - Management specifications covering: equipment management, service management, and power utilization.

First meeting results

- Discussed and Approved By-Laws
  - Policies & Procedures (http://www.ieee1904.org/1/documents/P1904_1_PandP.pdf)
  - Operations Manual (http://www.ieee1904.org/1/documents/P1904_1_OpsMan.pdf)
- Reviewed ~ 1 dozen technical presentations on WG Organization and Feature content
- Discussed and Formed a number of sub-groups or "Task Forces"
  - Service Configuration and Provisioning
  - Performance Requirements and Service Quality
  - Service Survivability
  - System/Device Management

Task Forces

- Service Configuration and Provisioning
  - Responsibilities:
    features that affect path that frames are taking, frame classification and manipulation, etc. (configuration, but not real time control)

- Chair: Lior Khermosh , PMC-Sierra, Inc.
- Editor: Alan Brown , Enablence Systems

Task Forces (cont)

- Performance Requirements and Service Quality
  - Responsibilities:
    features that affect service performance, i.e., real-time control mechanisms for delay, jitter, packet loss, BW guarantees, etc.

- Chair: Curtis Knittle, Cablelabs
- Editor: Jeff Stribling, Hitachi

Task Forces (cont)

- Service Survivability
  - Responsibilities:
    all features that affect availability of services:
    protection, restoration, etc;

- Chair: Seiji Kozaki , Mitsubishi Electric
- Editor: Jeff Lapak, UNH

Task Forces (cont)

- System/Device Management
  - Responsibilities:
    features that are required to operate EPON as a managed public network.

- Chair: Mike Emmendorfer, ARRIS
- Editor: Fumio Daido , Sumitomo Electric Industries, LTD

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http://www.ieee1904.org/1/members.html

Thank You

Any Questions?