P1904.2

Submitter Email: glen.kramer@ieee.org
Type of Project: Modify Existing Approved PAR
PAR Request Date: 18-Sep-2018
PAR Approval Date:
PAR Expiration Date:
Status: Unapproved PAR, Modification to a Previously Approved PAR
Root PAR: P1904.2 **Approved on:** 27-Mar-2014

1.1 Project Number: P1904.2
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Title: Standard for Management Channel for Ethernet-based Subscriber Access Networks

Changes in title: Standard for Management Channel for ~~Customer-Premises Equipment Connected to~~ Ethernet-based Subscriber Access Networks

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3.1 Working Group: Access Networks Working Group (COM/AccessCore-SC/1904_WG)
Contact Information for Working Group Chair
  Name: Glen Kramer
  Email Address: glen.kramer@ieee.org
  Phone: 707-529-0917
Contact Information for Working Group Vice-Chair
None

3.2 Sponsoring Society and Committee: IEEE Communications Society/Access and Core Networks Standards Committee (COM/AccessCore-SC)
Contact Information for Sponsor Chair
  Name: Alexander Gelman
  Email Address: adg@ieee.org
  Phone: 609 937 2124
Contact Information for Standards Representative
None

4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 01/2019
4.3 Projected Completion Date for Submittal to RevCom
Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 02/2020

5.1 Approximate number of people expected to be actively involved in the development of this project: 9

5.2 Scope: This standard describes a management channel for devices used in Ethernet-based subscriber access networks. The key characteristics of the specified management channel are:

- The ability to transit MAC bridges in a single IEEE 802 MAC domain to allow remote device management;
- Extensibility to accommodate new management protocols and new types of devices;
- The ability to simultaneously send messages to multiple UMT stations using broadcast or multicast addressing.

The standard describes the message format as well as processing operations at the stations participating in the UMT protocol.

Changes in scope: This standard describes a management channel for ~~customer-premises~~devices ~~equipment~~used ~~(CPE)~~in ~~connected to~~ Ethernet-based subscriber access networks. The key characteristics of the specified management channel are: - ~~Multi-hop~~The ~~capabilities~~ability to ~~allow~~transit ~~management~~MAC ~~of~~bridges ~~various~~in ~~CPE devices located behind an Optical Network Unit (ONU),~~ a ~~Coaxial~~single ~~Network~~IEEE ~~Unit~~802 ~~(CNU),~~MAC ~~a~~domain ~~Residential~~to ~~Gateway~~allow ~~(RGW),~~remote ~~etc.~~device management; - Extensibility to accommodate new management protocols and ~~/or~~ new types of ~~CPE~~ devices~~.~~; - ~~Broadcast/multicast~~The ~~capabilities~~ability to ~~allow~~simultaneously ~~simultaneous~~send ~~(synchronized)~~messages ~~configuration~~to ~~of~~ multiple ~~devices.~~UMT ~~-~~stations ~~Encryption~~using ~~capabilities~~broadcast ~~to~~or ~~ensure~~multicast ~~secure access to managed CPE devices by the network operators~~addressing. The standard describes the message format as well as processing operations ~~and~~at ~~forwarding~~the ~~rules~~stations ~~at~~participating in the ~~intermediate~~UMT ~~nodes~~protocol.

5.3 Is the completion of this standard dependent upon the completion of another standard: No

5.4 Purpose: This document will not include a purpose clause.

5.5 Need for the Project: In their quest to find the optimal balance between the performance of subscriber access networks and their cost, the network operators increasingly combine optical distribution section with a copper-based drop section, which typically includes a twisted pair, a Category-5 cable, or a coaxial cable. Network operators require a management system that would allow them to efficiently access and manage the subscriber demarcation device as well as the various devices that interconnect their optical and copper sections of the network.

In addition, to achieve the best-possible service quality, the access network operators find it necessary to extend their management domains past the typical subscriber demarcation device, such as an Optical Network Unit (ONU), a Coaxial Network Unit (CNU), Cable or DSL modem, or a Residential Gateway (RGW).

As Ethernet-based networks (switched Ethernet, point-to-point Ethernet, or Ethernet Passive Optical Network) are becoming technologies of choice for public subscriber access network, there is a pressing need to provide a universal management channel compatible with Ethernet and that would allow network operators to manage a variety of devices in access network or in subscriber premises in a uniform and consistent way.

5.6 Stakeholders for the Standard: The stakeholders include telecom system and component vendors, telecommunications carriers, and multiple system operators (MSOs)

Intellectual Property

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No

6.1.b. Is the Sponsor aware of possible registration activity related to this project?: Yes

If yes please explain: This project has already received an allocation of an Ethertype value to identify the management protocol data units

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7.1 Are there other standards or projects with a similar scope?: No

7.2 Joint Development

  Is it the intent to develop this document jointly with another organization?: No

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8.1 Additional Explanatory Notes: