

**New Ethernet Applications**  
**Industry Connections Activity Initiation Document (ICAID)**  
**Version: 1.0, 06-Sept-2018**  
**IC15-005-03 Approved by the IEEE-SASB 5 December 2018**

### **Instructions**

- ✓ Instructions on how to fill out this form are shown in red. It is recommended to leave the instructions in the final document and simply add the requested information where indicated.
- ✓ **Shaded Text** indicates a placeholder that should be replaced with information specific to this ICAID, and the shading removed.
- ✓ Completed forms, in Word format, or any questions should be sent to the IEEE Standards Association (IEEE-SA) Industry Connections Committee (ICCom) Administrator at the following address: [industryconnections@ieee.org](mailto:industryconnections@ieee.org).
- ✓ The version number above, along with the date, may be used by the submitter to distinguish successive updates of this document. A separate, unique Industry Connections (IC) Activity Number will be assigned when the document is submitted to the ICCom Administrator.

### **1. Contact**

Provide the name and contact information of the primary contact person for this IC activity. Affiliation is any entity that provides the person financial or other substantive support, for which the person may feel an obligation. If necessary, a second/alternate contact person's information may also be provided.

**Name:** John D'Ambrosia  
**Email Address:** [jdambrosia@ieee.org](mailto:jdambrosia@ieee.org)  
**Phone:** +17175034512  
**Employer:** [Futurewei](#)  
**Affiliation:** [Huawei](#)

### **2. Participation and Voting Model**

Specify whether this activity will be entity-based (participants are entities, which may have multiple representatives, one-entity-one-vote), or individual-based (participants represent themselves, one-person-one-vote).

Individual-Based

### **3. Purpose**

#### **3.1. Motivation and Goal**

Briefly explain the context and motivation for starting this IC activity, and the overall purpose or goal to be accomplished.

The growing diversity of applications for Ethernet is driving the development of a multitude of new standards to be developed. Recent examples of standardization activities that utilized the current New Ethernet Applications Industry Connections ICAID include optical solutions targeting 40 km at 50/200/400 Gb/s, optical solutions targeting 80 km at 100/400 Gb/s, 400 Gb/s over multi-mode fiber, electrical interfaces based on 100 Gb/s signaling, bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s Optical Access PHYs, and [Physical Layers for increased-reach Ethernet optical subscriber access \(Super-PON\) Study Group](#).

Additional topics are also being considered by the IEEE 802.3 Ethernet Working Group, such as an industry-wide Ethernet bandwidth assessment, or potential examples targeting DWDM technology. These potential topic areas might fuel the continuing expansion of the Ethernet family through new standards efforts.

The goal of this activity is to assess requirements for new Ethernet-based applications, identify gaps not currently addressed by IEEE 802.3 standards, and facilitate building industry consensus towards proposals to initiate new standards development efforts.

#### **3.2. Related Work**

Provide a brief comparison of this activity to existing, related efforts or standards of which you are aware (industry associations, consortia, standardization activities, etc.).

There are no known open standards / IEEE 802.3 based activity for Ethernet projects to compare against this Industry Connections activity proposal.

#### **3.3. Previously Published Material**

Provide a list of any known previously published material intended for inclusion in the proposed deliverables of this activity.

None

#### **3.4. Potential Markets Served**

Indicate the main beneficiaries of this work, and what the potential impact might be.

Ethernet is employed in a number of market applications, which are exhibiting a growing diversity in terms of the Ethernet rates and features needed. Solutions spanning these different application spaces and rates will be best addressed by leveraging common technology investments. This activity will enable industry consensus building on the market/application requirements and identify gaps not currently addressed by IEEE 802.3 standards of new solutions, which will help to foster industry interest in new Ethernet study groups.

#### **4. Estimated Timeframe**

Indicate approximately how long you expect this activity to operate to achieve its proposed results (e.g., time to completion of all deliverables).

**Expected Completion Date:** 12/2020

IC activities are chartered for two years at a time. Activities are eligible for extension upon request and review by ICCOM and the IEEE-SA Standards Board. Should an extension be required, please notify the ICCOM Administrator prior to the two-year mark.

#### **5. Proposed Deliverables**

Outline the anticipated deliverables and output from this IC activity, such as documents (e.g., white papers, reports), proposals for standards, conferences and workshops, databases, computer code, etc., and indicate the expected timeframe for each.

There will be multiple types of deliverables. The first type of deliverable will be the records of the meetings, including minutes and supporting presentations. The second type of output may be the creation of one or more consensus presentations that are used as the basis for one or more Call-for-Interests to study new areas. A third possible type of deliverable may be the creation, as appropriate, of white papers documenting the findings of the IC activity.

#### **6. Funding Requirements**

Outline any contracted services or other expenses that are currently anticipated, beyond the basic support services provided to all IC activities. Indicate how those funds are expected to be obtained (e.g., through participant fees, sponsorships, government or other grants, etc.). Activities needing substantial funding may require additional reviews and approvals beyond ICCOM.

None.

#### **7. Management and Procedures**

##### **7.1. IEEE Sponsoring Committee**

Indicate whether an IEEE sponsoring committee of some form (e.g., an IEEE Standards Sponsor) has agreed to oversee this activity and its procedures.

**Has an IEEE sponsoring committee agreed to oversee this activity?:** Yes

If yes, indicate the sponsoring committee's name and its chair's contact information.

**Sponsoring Committee Name:** IEEE 802 LAN/MAN Standards Committee

**Chair's Name:** Paul Nikolich

**Chair's Email Address:** [p.nikolich@ieee.org](mailto:p.nikolich@ieee.org)

**Chair's Phone:** +1 857 205 0050

**Working Group Chair :** IEEE 802.3 Ethernet Working Group

**Chair's Name:** David Law

**Chair's Email Address:** dlaw@hpe.com

**Chair's Phone:** +44 1631 563729

Contact Information for Working Group Vice-Chair

Vice-Chair's Name: Adam Healey

Vice-Chair's Email Address: adam.healey@broadcom.com

Vice-Chair's Phone: +1 610 712-3508

## **7.2. Activity Management**

If no IEEE sponsoring committee has been identified in 7.1 above, indicate how this activity will manage itself on a day-to-day basis (e.g., executive committee, officers, etc).

N/A

## **7.3. Procedures**

Indicate what documented procedures will be used to guide the operations of this activity; either a) modified baseline *Industry Connections Activity Policies and Procedures*, or b) Sponsor or Working Group policies and procedures accepted by the IEEE-SA Standards Board. The chosen policies and procedures must be reviewed by ICCom

IEEE 802 LMSC Operations Manual, IEEE 802 P&P, IEEE 802.3 Operations Manual

## **8. Participants**

### **8.1. Stakeholder Communities**

Indicate the stakeholder communities (the types of companies or other entities, or the different groups of individuals) that are expected to be interested in this IC activity, and will be invited to participate.

Stakeholders identified to date includes but are not limited to: users and producers of systems and components for servers, network storage, networking systems, data centers, high performance computing, telecommunications carriers, automotive, and industrial applications.

### **8.2. Expected Number of Participants**

Indicate the approximate number of entities (if entity-based) or individuals (if individual-based) expected to be actively involved in this activity.

130 individuals

### **8.3. Initial Participants**

Provide a list of the entities or individuals that will be participating from the outset. It is recommended there be at least three initial participants for an entity-based activity, or five initial participants (each with a different affiliation) for an individual-based activity.

Use the following table or an equivalent as applicable:

| <b>Entity</b> | <b>Primary Contact</b>                        | <b>Additional Representatives</b>         |
|---------------|---|---|
| Entity Name   | Contact Name<br>Email Address<br>Phone Number | Name, Email Address<br>Name Email Address |

Use the following table for an individual-based activity:

| ID # | Last Name     | First Name | Employer                 | Affiliation                      |
|------|---------------|------------|--------------------------|----------------------------------|
| 1    | Abbott        | Justin     | Lumentum                 | Lumentum                         |
| 2    | Anslow        | Pete       | Ciena                    | Ciena                            |
| 3    | Bains         | Amrik      | Cisco                    | Cisco                            |
| 4    | Bouda         | Martin     | Fujitsu                  | Fujitsu                          |
| 5    | Braun         | Ralf-Peter | Deutsche Telekom         | Deutsche Telekom                 |
| 6    | Brillhart     | Theodore   | Fluke Electronics        | Fluke Electronics                |
| 7    | Brooks        | Paul       | Viavi                    | Viavi                            |
| 8    | Brown         | Matt       | MACOM                    | MACOM                            |
| 9    | Carlson       | Steve      | High Speed Design        | High Speed Design                |
| 10   | Cassidy       | Derek      | IET/ICRG                 | IET/ICRG                         |
| 11   | Cates         | Ron        | Marvell                  | Marvell                          |
| 12   | Chabot        | Craig      | UNH-IOL                  | UNH-IOL                          |
| 13   | Chalupsky     | David      | Intel                    | Intel                            |
| 14   | Cole          | Chris      | Finisar                  | Finisar                          |
| 15   | D'Ambrosia    | John       | Futurewei                | Futurewei, Subsidiary of Huawei  |
| 16   | DeAndrea      | John       | Finisar                  | Finisar                          |
| 17   | DeSanti       | Claudio    | Google                   | Google                           |
| 18   | Diminico      | Chris      | MC Communications        | MC Communications/Panduit        |
| 19   | Dudek         | Mike       | Marvell Technologies     | Marvell Technologies             |
| 20   | Effenberger   | Frank      | Futurewei                | Futurewei, Huawei                |
| 21   | Estes         | David      | Spirent                  | Spirent                          |
| 22   | Fazlollahi    | Amir       | Futurewei                | Futurewei, Huawei                |
| 23   | Ferretti      | Vince      | Corning                  | Corning                          |
| 24   | Ghiasi        | Ali        | Ghiasi Quantum           | Ghiasi Quantum                   |
| 25   | Grow          | Bob        | RMG Consutling           | Consulting                       |
| 26   | Guo           | Qiang      | Huawei                   | Huawei                           |
| 27   | Gustlin       | Mark       | Xilinx                   | Xilinx                           |
| 28   | He            | Xiang      | Huawei                   | Huawei                           |
| 29   | Healey        | Adam       | Broadcom                 | Broadcom                         |
| 30   | Holden        | Brian      | Kandou Bus               | Kandou Bus                       |
| 31   | Isono         | Hideki     | Fujitsu                  | Fujitsu                          |
| 32   | Issenhuth     | Tom        | Issenhuth Consulting LLC | Issenhuth Consulting LLC, Huawei |
| 33   | Jackson       | Kenneth    | Sumitomo Electric        | Sumitomo Electric                |
| 34   | Jones         | Pete       | Cisco                    | Cisco                            |
| 35   | Jones         | Chad       | Cisco                    | Cisco                            |
| 36   | King          | Jonathan   | Finisar                  | Finisar                          |
| 37   | Knittle       | Curtis     | CableLabs                | CableLabs                        |
| 38   | Kochuparambil | Elizabeth  | Cisco                    | Cisco                            |
| 39   | Kolesar       | Paul       | CommScope                | CommScope                        |
| 40   | Lapak         | Jeffery    | UNH-IOL                  | UNH-IOL                          |
| 41   | Laubach       | Mark       | Broadcom                 | Broadcom                         |
| 42   | Law           | David      | HPE                      | HPE                              |

|    |               |                 |                                |  |
|----|---------------|-----------------|--------------------------------|--|
| 43 | LeCheminant   | Greg            | Keysight                       | Keysight   |
| 44 | Lee           | Han Hyub        | ETRI                           | ETRI   |
| 45 | Lewis         | Jon             | Dell EMC                       | Dell EMC   |
| 46 | Lewis         | David           | Lumentum                       | Lumentum   |
| 47 | Lingle        | Robert          | OFS                            | OFS  |
| 48 | Lusted        | Kent            | Intel                          | Intel  |
| 49 | Maki          | Jeffery         | Juniper Networks               | Juniper Networks   |
| 50 | Malicoat      | David           | Malicoat Networking Solutions  | Malicoat Networking Solutions, Senko Advanced Components |
| 51 | Matheus       | Kirsten         | BMW                            | BMW  |
| 52 | McCarthy      | Mick            | Analog Devices, Inc            | Analog Devices, Inc                                      |
| 53 | McSorley      | Greg            | Amphenol                       | Amphenol   |
| 54 | Mellitz       | Rich            | Samtec                         | Samtec   |
| 55 | Murray        | Dale            | LightCounting                  | LightCounting  |
| 56 | Nadolny       | Jim             | Samtec                         | Samtec   |
| 57 | Nicholl       | Gary            | Cisco                          | Cisco  |
| 58 | Nicholl       | Shawn           | Xilinx                         | Xilinx   |
| 59 | Nikolich      | Paul            | Self                           | Self   |
| 60 | Nowell        | Mark            | Cisco                          | Cisco  |
| 61 | Ofelt         | David           | Juniper Networks               | Juniper Networks   |
| 62 | Palkert       | Tom             | Molex/Macom                    | Molex/Macom  |
| 63 | Pardo         | Carlos          | KD POF                         | KD POF   |
| 64 | Parsons       | Elwood          | CommScope                      | CommScope  |
| 65 | Parsons       | Earl            | CommScope                      | CommScope  |
| 66 | Parthasarathy | Vasu            | Broadcom                       | Broadcom   |
| 67 | Pham          | Phong           | US Conec                       | US Conec   |
| 68 | Powell        | Bill            | Nokia                          | Nokia  |
| 69 | Ran           | Adee            | Intel                          | Intel  |
| 70 | Remein        | Duane           | Futurewei                      | Futurewei, Huawei  |
| 71 | Rotolo        | Salvatore       | STMicroelectronics             | STMicroelectronics                                       |
| 72 | Sambasivan    | Sam             | AT&T                           | AT&T   |
| 73 | Sayre         | Ed              | Teraspeed                      | Teraspeed  |
| 74 | Shariff       | Masood          | CommScope                      | CommScope  |
| 75 | Shrikhande    | Kapil           | Innovium                       | Innovium   |
| 76 | Stassar       | Peter           | Huawei                         | Huawei   |
| 77 | Stewart       | Heath           | Analog Devices, Inc            | Analog Devices, Inc                                      |
| 78 | Stone         | Rob             | Broadcom                       | Broadcom   |
| 79 | Sun           | Phil            | Credo                          | Credo  |
| 80 | Sun           | Liyang (Marcus) | Huawei                         | Huawei   |
| 81 | Swanson       | Steve           | Corning Optical Communications | Corning Optical Communications                           |
| 82 | Tailor        | Bharat          | Semtech                        | Semtech  |
| 83 | Tamura        | Kohichi         | Oclaro                         | Oclaro   |
| 84 | Tooyserkani   | Pirooz          | Cisco                          | Cisco  |
| 85 | Tracy         | Nathan          | TE Connectivity                | TE Connectivity  |
| 86 | Traverso      | Matt            | Cisco                          | Cisco  |
| 87 | Tremblay      | David           | HPE                            | HPE  |

|    |            |           |                                |   |
|----|------------|-----------|--------------------------------|---|
| 88 | Trowbridge | Steve     | Nokia                          | Nokia   |
| 89 | Ulrich     | Ed        | Source Photonics               | Source Photonics  |
| 90 | Umnov      | Alexander | Corning Optical Communications | Corning Optical Communications                                  |
| 91 | Wang       | Xinyuan   | Huawei                         | Huawei  |
| 92 | Woods      | Jordon    | Analog Devices, Inc            | Analog Devices, Inc   |
| 93 | Xu         | Yu        | Huawei                         | Huawei  |
| 94 | Young      | James     | CommScope                      | CommScope   |
| 95 | Zhuang     | Yan       | Huawei                         | Huawei  |
| 96 | Zimmerman  | George    | CME Consulting                 | CME Consulting, ADI, Aquantia, APL Group, BMW, Cisco, Commscope |
| 97 | Zivny      | Pavel     | Tektronix                      | Tektronix   |