



HSSG PAR proposal

Howard Frazier – Broadcom

Mark Nowell – Cisco

IEEE 802.3 HSSG

July 17, 2007 – San Francisco, CA



Supporters

Adam Bechtel – Yahoo

Mike Bennett – LBNL

Uri Cummings – Fulcrum Microsystems

John Dallesasse – Emcore

Wael Diab – Broadcom

Chris DiMinico – MC Communications

Alan Flatman – LAN Technologies

Howard Frazier – Broadcom

Ilango Ganga – Intel

Garth Gibson – Panasas

Joel Goergen – Force10

Daniel Golding – Tier 1 Research

Larry Green – Ixia

Greg Hankins – Force10

Peter Harrison – Netflix

Robert Hays – Intel

Osamu Ishida – NTT

Kenneth Jackson – Emcore

John Jaeger – Infinera

Alan Judge – Amazon

Scott Kipp – Brocade

Shoukei Kobayashi – NTT

Paul Kolesar – CommScope

David Koenen – HP

Mark Kortekaas – CBS

Glen Kramer – Teknovus

Louis Lee – Equinix

Robert Lingle, Jr. – OFS

Ronald Luijten – IBM Research

Trey Malpass – Malpass Technology

Jeff Maki – Juniper Networks

Arlon Martin – Kotura

David Martin – Nortel

Jim McGrath – Molex

Andy Moorwood – Extreme Networks

Jay Moran – AOL

Shimon Muller – Sun

Gary Nicholl – Cisco

Shinji Nishimura – Hitachi

Mark Nowell – Cisco

George Oulundsen – OFS

Gourgen Oganessyan – Molex

Tom Palkert – Xilinx

Shashi Patel – Foundry Networks

Petar Pepeljugin – IBM Research

Drew Perkins – Infinera

Christopher Quesada – Switch & Data

Vik Saxena – Comcast

Peter Schoenmaker – NTT America

Ted Seely – Sprint

Charles Seitz – Myricom

Henk Steenman – AMS-IX

Andre Szczepanek – Texas Instruments

Geoff Thompson – Nortel

Bruce Tolley – Solarflare

Hidehiro Toyoda – Hitachi

Matt Traverso – Opnext

Bill Trubey – Time Warner Cable

Brad Turner – Juniper Networks

Schelto Van Doorn – Independent

Jan Peeters Weem – Aprius

Jason Weil – Cox Communications

Doug Wilson – MSN

Robert Winter – Dell

Bill Woodruff – Aquantia

Title

IEEE Standard for Information Technology –
Telecommunications and Information Exchange Between
Systems – Local and Metropolitan Area Networks – Specific
Requirements Part 3: Carrier Sense Multiple Access with
Collision Detection (CSMA/CD) Access Method and Physical
Layer Specifications – Amendment: Media Access Control
Parameters, Physical Layers and Management Parameters for
40 Gb/s and 100 Gb/s Operation

Scope

Define 802.3 Media Access Control (MAC) parameters, physical layer specifications, and management parameters for the transfer of 802.3 format frames at 40 Gb/s and 100 Gb/s.

Purpose

The purpose of this project is to extend the 802.3 protocol to operating speeds of 40 Gb/s and 100 Gb/s in order to provide a significant increase in bandwidth while maintaining maximum compatibility with the installed base of 802.3 interfaces, previous investment in research and development, and principles of network operation and management. The project is to provide for the interconnection of equipment satisfying the distance requirements of the intended applications.

Need

The project is necessary to provide a solution for applications that have been demonstrated to need bandwidth beyond the existing capabilities. These include data center, internet exchanges, high performance computing and video-on-demand delivery. Network aggregation and end-station bandwidth requirements are increasing at different rates, and is recognized by the definition of two distinct speeds to serve the appropriate applications.