TelecomStandards

Monthly Newsletter Covering Worldwide Developments in Telecom Standards

Including new and developing standards, certificates, rules, and regulations affecting equipment and services

Present standards that include plastic optical fiber

Process control	Automotive
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* Profibus	* IDB-1394
* Interbus	* Byteflight
Computer	**Consumer**
* ATM	* ATM home network
* 1394b	* 1394b

Source: IGI Consulting

IEEE

IEEE 802.3 Study Group puts 100 Gigabit Ethernet in the fast lane

The Ethernet Alliance, an industry group dedicated to the continued success and expansion of Ethernet technology, announced that the Institute of Electrical and Electronic Engineers (IEEE) 802.3 Higher Speed Study Group (HSSG) voted to support 100Gbps as the next speed for Ethernet. In addition, the IEEE 802.3 HSSG also agreed to support reaches

of at least 100 meters on OM3 MMF (multi-mode fiber) and of at least 10km on SMF (single-mode fiber).

"While 100G Ethernet has been touted in the press, the HSSG took the time to hear presentations and discuss the next speed jump. Ultimately, it was perceived that the ROI requirements would be balanced by the investment in the 10x increase in speed. The decision by the group continues to validate the industry's belief in Ethernet's long tradition of increasing speed in increments of 10x," said Lucinda Borovick, director, Datacenter Networks, IDC.

"The Ethernet Alliance is excited about the recent events in IEEE 802.3. HSSG achieved a major milestone in deciding to support 100 Gigabit Ethernet as the next speed for Ethernet. This is an important first step, and the Ethernet Alliance fully supports the work of the HSSG," said Brad Booth, president, Ethernet Alliance.

The Ethernet Alliance is also pleased to announce that it will be a sponsor at the upcoming Optoelectronics Industry Development Association (OIDA). The event brings together senior executives and government decision-makers in optoelectronics industries including communications, solid state lighting, industrial lasers, solar energy, defense and security, sensors, medical, and displays. OIDA is a Washington D.C.-based, non-profit association that promotes optoelectronics.

For more information about the HSSG, please contact John D'Ambrosia, HSSG chair, at jdambrosia@force10networks.com.

Sony and Dell executives to chair IEEE group revising portable computing standard

Jean Baronas, director of the Technology Standards Office at Sony Electronics, and Bill Kabele, director of Power Engineering at Dell Corporation, were elected to cochair the Portable Computer Battery Working Group at its first meeting last month. The group is revising

IEEE 1625, "IEEE Standard for Rechargeable Batteries for Portable Computing," which addresses the design, manufacture, and testing of lithium-ion battery cells and packs used in portable computing devices.

The working group also set an accelerated schedule for its efforts and now plans to complete its work on the standard within 12 months. It also defined a structure for its efforts by forming a number of subgroups, including those focusing on the cell, the pack, and the system, and another to investigate all conformity assessment options and make a recommendation for the revised standard. In addition, the group tentatively set its next meeting for February in Asia.

"We made impressive progress in our first meeting by setting an organizational structure, reaching agreement on funding, and setting a development schedule," said David Ling, who had been the working group's acting chair and is regulatory policy and strategy manager at the Hewlett Packard Company.

Kabele noted that the first meeting was a clear indication of how serious the industry is about improving the reliability of batteries for portable computing. "About 50 people from 30 companies attended," he said, "representing the entire global supply chain for batteries used in portable computing from cell manufacturers to OEMs, including third-party test and certification bodies."

"One of the primary goals for the revised version of IEEE 1625," said Baronas, "is to establish liaisons with key standards development organizations and stakeholders to ensure better coordination, avoid conflict, and support collaboration to improve battery standardization globally. We also want to submit the completed document for acceptance by the International Electrotechnical Commission (IEC) as a dual-logo standard."

Ling, who chairs the Subgroup on Conformity Assessment, said the subgroup will explore the need for a compliance program for

the revised standard in the context of all potential options, with the possibility that an option would be not to have such a program. The Subgroup will return a recommendation to the working group by the end of the development phase.

IEEE 1625 is part of the Livium family of battery standards, which also includes the IEEE 1725 standard for mobile cell-phone batteries. Another Livium standard, IEEE P1825, is underway for mobile batteries in digital cameras and camcorders. IEEE Livium standards are created within the IEEE Standards Association Corporate Program, which involves company-based working groups.

IEEE 1625 is sponsored by the Stationary Batteries Committee of the IEEE Power Engineering Society, with support from the IEEE-SA Corporate Advisory Group.

"We're sponsoring the Livium family of documents because the Stationary Battery Committee is focused on developing standards for emerging, market-relevant battery technologies," said Samuel Norman, chair of the Stationary Battery Technical Committee and chief operating officer of Majorpower Corporation. "As the home for battery technology in IEEE, we sponsor 20 standards spanning conventional and cutting-edge energy storage chemistries."

The IEEE-SA Corporate Standards Program allows profit and not-for-profit entities to create standards within an ANSI-based, open process. Standards are developed in company-based working groups in which each member has one vote. This industry-oriented program allows for standards creation in one to two years, depending on participant commitment and the use of IEEE support services.

Motorola receives '2006 Corporate Award' from the IEEE standards association

Motorola Inc. has received the 2006 IEEE Standards Association (IEEE-SA) Corporate Award in recognition of its "outstanding contributions to IEEE standards, which allow people to be mobile and connected across the globe."

Motorola has been a leader in the creation of many IEEE standards. Most significantly, it has contributed substantially to the broad family of IEEE 802 wireless standards by participating in over 50 IEEE 802 working groups and task groups. For instance, it has held numerous leadership positions in working groups for IEEE 802.11 (local area networks), IEEE 802.15 (personal area networks), IEEE 802.16 (metropolitan area networks), and IEEE 802.22 (regional area networks) standards.

Motorola was the driving force behind IEEE's groundbreaking standards work in nanotechnology and battery standards. It also holds many key positions in IEEE governance organizations, such as the Industry Standards and Technology Organization, the Corporate Advisory Group, the IEEE Standards Association Standards Board, the IEEE Communications Society Standards Board, and the IEEE Vehicular Technology Society.

"This award honors Motorola for its dedication in partnering with us to create standards for diverse electronic components, devices and systems," said Judy Gorman, managing director of IEEE-SA. "Many of these industry standards have opened markets for new technologies that have changed people's lives in fundamental ways and have allowed them to be connected wherever they are.

"Motorola's leadership and uncompromising support of our vision and mission have helped us become a world-class standards organization. Their support has also enabled us to reach many of our strategic goals, such as creating the IEEE-SA Corporate Program and strengthening our alliances with other standards bodies worldwide."

"We are pleased to receive this recognition for our partnership with the IEEE to create quality, world-class standards," said Mike Pellon, vice president of standards at Motorola. "This award demonstrates our commitment to

technology innovation and open standards that enable a large, global, multi-vendor marketplace. It's an honor to be recognized for our contributions and leadership in the many IEEE standards that shape the convergence of mobile cellular telephony, IT-based broadband wireless, and consumer electronics industries."

IEEE alters its standards patent policy to provide fuller disclosure on licensing

The IEEE Standards Association (IEEE-SA) has approved a change in its patent policy effective April 30, 2007, that provides for the optional advance disclosure of "not to exceed" licensing terms associated with patents that might be included in its standards. The change is intended to make the IEEE standards-setting process more transparent. IEEE-SA has also submitted a request to the US Department of Justice for a business review letter confirming the department's guidance on the antitrust aspects of the new policy.

The revision to IEEE-SA's patent policy has three key elements:

-   It permits and encourages the optional and unilateral ex ante disclosure of royalty rates and other license terms — that is, disclosure before a patented technology is included in a standard. The disclosed terms may include, for example, the maximum royalty rate that the patent-holder will seek to charge.

-   It improves the mechanisms for making sure that a patent-holder's assurance (which is irrevocable) fully and effectively binds subsequent owners of the patent by requiring the patent-holder to provide notice of the existence of the assurance.

-   It strengthens provisions for binding the submitter's affiliates to the terms of the policy, making clear that affiliates are bound unless the submitter identifies affiliates it does not wish to bind.

"This change in our patent policy is part of the ongoing evolution of our standards process," said Judith Gorman, IEEE-SA

managing director. "Until now, we've allowed the inclusion of essential patents in IEEE standards if patent holders assure us they will license their patents without compensation or with reasonable and nondiscriminatory terms (RAND). However, the lack of specific information in such assurances may create uncertainty that can impede the adoption of a standard.

"The new policy is an important step in correcting this situation through additional transparency of licensing terms for the technology alternatives being considered for inclusion in a standard. The policy should also benefit anyone who seeks to comply with IEEE standards after they are approved."

ITU

IP Multicast Rec from Study Group 9

Study Group 9 recently approved a Recommendation on IP multicast.

IP multicast is seen a promising technology for providing IP-based video distribution because of its bandwidth efficiency while accommodating millions of clients.

Recommendation J.283 provides a set of architectural concepts for constructing and meeting the service quality requirement of a stable IP-based video distribution network. It uses network layer (Layer-3) route diversity between the server edge routers and the client edge routers

Set-top box recommendations approved

Three new Recommendations providing architecture for advanced set-top boxes have been approved by Study Group 9.

The Recommendations (J.290-J.292) take into account advances in technologies and architectures for delivery of multiple types of services — including video, voice, and data. The three include a core recommendation along with two adjuncts which provide for a cable solution and a media independent solution. The core

document (J.290) describes key functional aspects of the next-generation set-top box (STB), such as configurable security including downloadable conditional access, advanced codecs, video over IP, QoS control, and extension of these functions to in-home networks.

J.291 describes the cable network architecture component of the next-generation STB. When combined with companion Recommendation J.290, the architecture defines a cost-efficient platform with capacity and flexibility to support growth of on-demand video, high-definition digital TV, managed in-home networks connecting a wide range of consumer-provided devices, and future IP multimedia services including IP voice, video telephony, and multiplayer gaming. It reflects key functional aspects of the next-generation cable STB, such as a common application platform (globally executable MHP [Multimedia Home Platform], which is the common core among OCAP (OpenCable project), MHP and ARIB (Association of Radio Industries and Businesses), MPEG (Moving Picture Expert Group) transport including advanced compression technology, and downloadable conditional access (configurable security).

J.292 describes a core architecture that is not dependent on transport media for a next-generation STB, which will allow service providers to offer existing and new advanced services regardless of the transport media. In this recommendation, it is assumed that all contents are transported on IP packets with an adequate QoS-controlled mechanism. The recommendation reflects key functional aspects of the next-generation STB, such as network resource adaptability, secure two-way authenticated communication and session resource management and a QoS-control mechanism.

Next-generation cable modem work starts

Three new recommendations from ITU-T's Study Group 9 provide the first steps towards the next generation of cable modems. According to SG insiders, new cable modems will boost bandwidth, increase security, and provide greater flexibility overall for network operators to deploy data services.

Recommendations J.210-J.212 provide a basis for modularizing cable modem termination systems (CMTS) and were designed as an extension to the DOCSIS Recommendations to allow for flexibility and independent scaling of certain CMTS functions.

DOCSIS (data over cable service interface specifications) — defined in Recommendations J.112 and J.122 — specifies transmission systems for interactive cable television services: IP cable modems. It defines the requirements for the two fundamental components that comprise a high-speed data-over-cable system: the cable modem (CM) and the CMTS.

The modular-CMTS (M-CMTS) architecture splits the CMTS function into three fundamental components: the M-CMTS Core, the EQAM (downstream modulator), and the Timing Server. Inasmuch as the modular components may be located on different chassis, and potentially at different physical locations, the new Recommendation J.211 (Timing Interface for CMTS) provides the robust and highly accurate transport of timing signals from the Timing Server to the other components of the M-CMTS network in order to ensure that the system components work in lock-step.

Recommendation J.212 defines the protocol used to tunnel downstream user data across an Ethernet network between the M-CMTS Core and EQAM. Finally, the new Recommendation J.210 defines the downstream physical layer modulator requirements for the EQAM.

Another new recommendation in the DOCSIS series, J.213, describes requirements on both CMTSs and CMs in order to implement a Layer 2 virtual private network, feature which allows operators to offer a transparent LAN service along the lines of carrier Ethernet.

IP Cablecom 2 among SG 9 announcements

ITU-T's Study Group 9 has approved an array of recommendations in several areas, including broadband IP multimedia services and next-generation digital set-top box architectures.

Study Group experts say that the advancements will greatly extend the service capabilities of broadband cable and other networks. The recommendations were approved by ITU-T Study Group 9, Integrated Broadband Cable Networks and Television and Sound Transmission, during its October meeting in Tokyo.

SG 9's recommendations include key work in IPCablecom2, modular CMTS (cable modem termination systems), next-generation video set-tops, and architecture for deploying an IP multicast video distribution network using network layer route diversity.

IPCablecom is a project initiated by SG 9 several years ago on time-critical interactive services over cable television networks using IP. It is a suite of Recommendations (J.160-178) which provides for telephony, and J.179 (IPCablecom Multi Media), which creates a bridge that allows for the expansion into a full range of multimedia services.

IPCablecom2 is contained in a new suite of recommendations (J.360-363 and J.365-366) and is designed to support the convergence of voice, video, data, and mobility technologies through a modular non-service-specific approach. This modular approach allows operators flexibility to deploy network capabilities as required by their specific service offerings, while maintaining interoperability across a variety of devices from multiple suppliers.

These new recommendations define an architecture and a set of open interfaces that leverage emerging communications technologies, such as the session initiation protocol (SIP), to support the rapid introduction of new IP-based services onto the cable network. IPCablecom2 is also based on Release 6 of the IP Multimedia Subsystem (IMS), as developed by the 3rd Generation Partnership Project (3GPP), which is a SIP-based architecture for providing multimedia services.

HomePNA

HomePNA expands

HomePNA announced that its alliance membership has swelled by 28 members this year, demonstrating growing industry investment in high-speed multimedia home networking using existing home wiring. The new members include leading semiconductor, set-top box, residential gateway, ONT, component, and telco test equipment suppliers. Companies and industry standards groups are adopting and implementing the home networking specification, which supports triple-play voice, video, and broadband data services at data rates of 320Mbps over coax and phone wires, with the capacity to deliver next-generation IPTV and other networked entertainment data and VoIP services.

"Joining the alliance was a strategic decision," said Dave Holly, senior vice president of JDSU's Field Test Communications Test and Measurement division. "We now have access to members-only specifications, cooperation and development with like-minded companies and a hands-on contribution to the technology we are convinced will be a major force in multimedia home networking."

Scientific Atlanta, Conexant, and Sunrise Telecom are new promoter members and board directors which provide both technical and strategic leadership for the alliance. New members JDSU, Analog Devices, and Janifast Corp. joined as participant members which contribute to committee work while influencing technology development. HomePNA also added 22 new adopter members which will implement the technology with their member-only access to the HomePNA specifications and certification process.

UPnP

Sun, Ericsson, Nokia form Telecommunications Platform Initiative

Sun Microsystems, Ericsson, and Nokia announced the formation of a Telecommunications Platform Initiative to develop the requirements for a standardized, integrated telecommunications technology platform. The aim is to simplify technology integration by enabling design, development, and supply-chain efficiencies, thereby benefiting the network operator.

The companies said that by collaborating on a series of publicly available requirements documents for the Operations, Administration, and Management Layer (OA&M) and Service Layer environments, the Initiative could provide the broader telecommunications industry with new alternatives to improve time to service, time to market, and ultimately, time to revenues. Sun and the members of this Initiative will continue to be actively involved with other standardization and specification bodies such as PICMG and SCOPE.

UPnP Implementers Corp. reaches milestone to make UPnP specifications international standards

The UPnP Implementers Corporation (UIC) announced the recent submission of the UPnP Device Architecture and 15 UPnP Device Control Protocol (DCP) specifications to the International Organization for Standardization/International Electrotechnical Commission Joint Technical Committee 1 (ISO/IEC JTC1) for approval as Publicly Available Specifications (PAS).

UPnP technology helps create seamless, simple network-enabled consumer electronic equipment, PCs, and printers. The UPnP Forum, a non-profit association open to any company or individual, was created in 1999 to provide an ongoing, open process to develop the UPnP architecture and device specifications. The forum now has more than 800 member companies from the consumer electronics, computing, home automation and security, home appliance, computer networking, and related industries. The UIC, which is closely associated with the forum, acts as the certification authority that enables member companies that implement UPnP technology to certify devices as compliant with the UPnP specification. Companies also obtain the right to use the UPnP logo.

Previously, the ISO/IEC JTC1 had approved the UIC as a submitter of PAS. This approval allowed the submission of UPnP specifications directly to the ISO/IEC and initiated the standards approval process. UIC anticipates the process to conclude in mid-2007 with UPnP specifications being recognized as International Standards.

UIC's president, Tom McGee, said, "Becoming an approved PAS submitter and submitting the UPnP specifications represents significant steps forward for UPnP technology. As an internationally recognized standard, more companies will be interested in certifying devices; and therefore, it will result in increased market adoption."

Alan Messer, chair of the UPnP Forum Steering Committee, said, "With submission of the UPnP Device Architecture and all published DCPs to JTC1, a major milestone to increase adoption worldwide of UPnP technology has been achieved. This is great news for users and implementers of UPnP technology."

UPnP technology makes home networking simple and affordable so that the connected-home experience becomes a mainstream experience for users and a great opportunity for the industry. UPnP device and service standards have been defined and published for Internet gateways/routers, audio-video media devices, printers, scanners, climate control, lighting, and wireless LAN access points.

The UPnP architecture offers pervasive network connectivity between all types of

devices, including network-enabled consumer electronics equipment, intelligent appliances, portable wireless devices, PCs, etc. The UPnP architecture leverages TCP/IP and other Web technologies to enable seamless integration of these devices into existing network infrastructures. UPnP technology can be implemented on nearly any operating system and works with essentially any type of physical networking media that supports IP — wired or wireless — providing maximum user and developer choices, which result in higher economic benefits for everyone.

The UPnP Implementers Corporation (UIC) is the non-profit corporation that promotes the adoption of UPnP technology by manufacturers of hardware and software products. The UIC administers the UPnP device certification process and the UPnP mark licensing.

There are now more than 275 UPnP-certified products. UPnP certification creates the foundation for interoperability and provides an easy way for retailers and consumers to recognize products that have been developed and tested to comply with the UPnP device standards. The UPnP certification program is required by the Digital Living Networking Alliance (DLNA) as a prerequisite to its certification program.

For more information about certifying products with the UIC, please visit http://www.upnp-ic.org.

TD-SCDMA

Alcatel and Datang agree on TD-SCDMA

Alcatel and Datang Telecom Technology and Industry Group signed a Memorandum of Understanding (MOU) to drive TD-SCDMA development. Specifically, the MOU reinforces the cooperation that currently exists between the two companies in the areas of sales, marketing, industrialization, research, and development of TD-SCDMA products and

technologies for the domestic China market. Alcatel will assist the Datang Group abroad. Finally, the MOU includes joint development of LTE (Long Term Evolution) products and technologies.

TD-SCDMA is one of three 3G standards licensed by the International Telecommunication Union (ITU); it was put forth by Datang Group on behalf of China in 2000. The other two are W-CDMA and CDMA 2000.

TIA

TIA publishes new standard TIA-1092

The Telecommunications Industry Association (TIA) has published a new standard, "Tunneling Support in Simple IP," TIA-1092.

This specification describes an inter-working scheme based on the tunneling of the Simple IP packet data traffic of the roaming mobile station between a foreign domain and a home domain. The scope of this document includes tunneling support for the Simple IP packet data subscriber roaming across cdma2000 packet data systems that are administered by different service providers. In this standard, the tunneling scheme is specified in the context of layer-two tunneling. Other tunneling schemes are not precluded.

TIA-1092 was created by TIA TR-45 Mobile and Personal Communications Systems, TR-45.6 Subcommittee on Adjunct Wireless Packet Data Technology and released October 2006. To obtain copies of the document, contact Information Handling Services at (800) 854-7179 or visit http://global.ihs.com.

Fiber Optics LAN Section Web conference highlights performance and cost advantages of FTTE architecture

On Monday, November 13, TIA's Fiber Optics LAN Section (FOLS) held a Web conference that explored the performance and cost advantages network managers can realize from deploying a relatively new standards-

compliant architecture: fiber-to-the-telecom enclosure (FTTE). The Web conference was led by John Struhar, marketing manager at Ortronics/Legrand and a former chair of the FOLS. A copy of the presentation can be downloaded at www.fols.org.

FTTE was developed to help IT managers incorporate more sophisticated voice, data and video equipment into enterprise applications. This architecture extends the fiber backbone from the equipment room, through the riser and the telecom room, and out directly to a telecom enclosure installed in a common space that serves a number of users in their work area. It is a solution that leverages fiber's distance capabilities by bringing increased bandwidth closer to the user, and provides ultimate flexibility in the final drop by allowing IT managers to utilize their legacy equipment or upgrade to fiber or wireless on an "as needed" basis.

Implementation of FTTE is based on the new TIA/EIA-569-B "Pathways and Spaces" standard, which defines the Telecom Enclosure (TE) "space," and TIA/EIA-568-B.1 Addendum 5, which defines the TE cabling. The FTTE architecture allows any media choice from the TE to the work area; it may be UTP copper, multi-mode or single-mode fiber, or even wireless if an access point is installed in or near the TE. FTTE can be deployed in either a low-density configuration, which maximizes network throughput, or in a high-density configuration, which maximizes cost savings.

Struhar explained that to help users compare FTTE architectures with other architectures such as hierarchical star or centralized fiber-optic cabling, it's helpful to use a common scenario. The FOLS illustrates these architectures in the latest version of its comprehensive premises cost model, which allows users to compare the installed first costs of the architectures using either sample scenarios, or by customizing the model parameters to reflect their own installation. The cost model, along with instructions for its use,

can be downloaded at no charge at www.fols.org.

New project numbers

If you are interested in participating in the development of the below standards or in any of the TIA standards developing process please complete an online application at http://www.tiaonline.org/standards/join/apply.cfm.

Project Number 3-0260, New TIA, "Network Firewall Configuration and Control" — if interested contact Brent Hirschman, Sprint, at 913.794.4271, or via email at brent.hirschman@sprint.com

Project Number 3-0261, New TIA, "HRPD Fast Handoff" — if interested contact Brent Hirschman, Sprint, at 913.794.4271, or via email at brent.hirschman@sprint.com

Project Number 3-0262, New TIA, "MIPv4 Enhancements" — if interested contact Brent Hirschman, Sprint, at 913.794.4271, or via email at brent.hirschman@sprint.com

Project Number 3-0263, New TIA, "MIPv6 Enhancements" — if interested contact Brent Hirschman, Sprint, at 913.794.4271, or via email at brent.hirschman@sprint.com

New standards proposals ballots (ANSI)

Standards Proposal No. 3-0219, proposed creation of a TIA Standard, "Telecommunications — Telephone Terminal Equipment — Handset Magnetic Measurement Procedures and Performance Requirements" (if approved, to be published as TIA-1083).

Standards Project No. 3-0068-UGRV, proposed upgrade and revision of TIA standard "Wideband Air Interface Media Access Control/Radio Link Adapatation (MAC/RLA) Layer Specification" (if approved, to be published as TIA-902.BAAC-A).

Standards Project No. 3-0081-UGRV, proposed upgrade and revision of a TIA standard "Wideband Air Interface Logical Link Control (LLC) Layer Specification" (if approved, to be published as TIA-902.BAAE-A).

New project numbers ballots

Project Number 3-0070, proposed creation of a new TIA Standard, "Packet Switched Video Telephony Services," (if approved, to be published as TIA-924)

Project Number 3-0242, proposed creation of a new Bulletin, "cdma2000 Multimedia Services Evaluation Methodology: Software Tools," (if approved, to be published as TSB-170)

Project Number 3-0262, proposed creation of a new TIA Standard, "MIPv4 Enhancements," (if approved, to be published as TIA-1116)

Project Number 3-0263, proposed creation of a new TIA Standard, "MIPv6 Enhancements," (if approved, to be published as TIA-1117)

Project Number 3-3292-RV3, proposed revision of an existing TIA Standard, "Enhanced Variable Rate Codec, Speech Service Options 3, 68, and 70 for Wideband Spread Spectrum Digital Systems," (if approved, to be published as TIA-127-C)

Project Number 3-3292-RV2.SF1, proposed creation of a new TIA Standard, "Software Distribution for Enhanced Variable Rate Codec Speech Service Options 3and YY for Wideband Spread Spectrum Digital Systems," (if approved, to be published as TIA-127-B[SF1])

Project Number 3-4822-AD1, proposed addendum to an existing TIA Standard, "Telecommunications Infrastructure Standard for Industrial Premises; Addendum 1 — Industrial Pathways and Spaces," (if approved, to be published as TIA-1005-1)

Project Number 3-3490-RV2-AD1, proposed addendum to an existing TIA Standard, "Residential Telecommunications Infrastructure Standard; Addendum 1 — Additional Requirements for Broadband Coaxial Cabling," (if approved, to be published as TIA-570-B-1)

Published documents available

TIA only documents/interim standards:

TIA-946-1[E], Enhanced Cryptographic Algorithms

TIA-1009, ME Personalization Mechanism for cdma2000Spread Spectrum Systems

TIA-1092, Tunneling Support in Simple IP

TIA-1105, Terrestrial Mobile Multimedia Multicast based on Digital Video Broadcasting for Handheld Devices System

To check the status of any ballot (PN or SP), go to the TIA Web page in the Standards Section to obtain current information. The link for PN ballots is: http://www.tiaonline.org/standards/sfg/pn_report.cfm, or for SP ballots, http://www.tiaonline.org/standards/sfg/sp_report.cfm.

CABLE LABS

CableLabs and EuroCableLabs issue RFI for DOCSIS 3.0 devices

CableLabs and EuroCableLabs have issued a request for information (RFI) seeking product availability for devices that would comply with the Data over Cable Service Interface Specification (DOCSIS) 3.0. DOCSIS 3.0 enables downstream data rates up to 160Mbps or higher and upstream data rates up to 120Mbps or higher.

The issuance of this RFI reflects the importance that the cable television system operators throughout the world place on getting accurate product development and availability information on DOCSIS 3.0 devices from the equipment vendor community in order for the operators to establish their deployment plans for the next generation of IP-based multimedia (voice, data, and video) businesses. It also reflects the commitment by cable operators to continue to build upon the highly successful DOCSIS platform, with full interoperability in mind.

The RFI specifically seeks information on DOCSIS 3.0 modems, cable modem termination systems (CMTS), and PacketCable embedded multimedia terminal adapters (E-MTAs). It seeks information on what products are being developed to meet the requirements of the DOCSIS 3.0 specifications. There will be no ranking of responses, nor will there be an approved supplier list resulting from the RFI.

Those cable television system operators participating in the RFI are Advance/Newhouse Communications, Armstrong, Aurora Cable TV Ltd., Bend Broadband, Bresnan Communications, Cablevision Systems Corp., Canal Digital Kabel TV AS, Charter Communications, Cogeco Câble Inc., Comcast, ComHem AB, Cox Communications, Essent N.V., Insight Communications, Kabel Baden-Württemberg GmbH & Co. KG; Kabel Deutschland GmbH, Liberty Global Inc., Mediacom Communications Corp., NetCologne, ntl/TeleWest, ONO, Rogers Communications, Shaw Cablesystems, StarHub, SW Television Oy/Welho, TDC Kabel TV A/S, Telenet, Time Warner Cable Inc. TVCabo Portugal SA, UPC Broadband, Unity Media, and Vidéotron Ltée.

EuroCableLabs is the technical center of excellence for the European cable industry. EuroCableLabs' core activities are research on emerging technologies, developing standards for cable technology, and certifying vendor equipment. EuroCableLabs is a member organization including all the leading cable operators in Europe, servicing TV, broadband Internet, and telephony services. The European cable industry services more than 64 million customers. EuroCableLabs Associate Supporters include vendors to the cable industry. EuroCableLabs has offices in Brussels, Belgium, and Braunschweig, Germany, and is part of Cable Europe, the European Cable Communications Association. More information about EuroCableLabs is available at www.eurocablelabs.com.

IMS FORUM

IMS Forum to host inaugural IMS Plugfest for Applications and Services

The IMS Forum, the industry association recognized as the "Voice of IP Convergence" (www.imsforum.org), announced that it will host its first IP Multimedia Subsystem (IMS) Plugfest for Applications and Services, January 15-19, 2007, at the University of New Hampshire's Interoperability Lab (IOL).

Registration, which is open to both IMS Forum members and non-members, started on Wednesday, October 18, 2006. Details are available on the IMS Forum Web site at www.imsforum.org .

The IMS Plugfest, the first in a series of IMS Plugfest events, will bring together service providers and IMS vendors committed to furthering the development of IMS certification, and will provide a unique opportunity to establish agreed-upon requirements and criteria for IMS applications and services interoperability. This testing event will enable the Forum to develop an industry-recognized "stamp of approval" for IMS applications and services, expediting their rollout.

The IMS Forum is committed to bringing together all participants, including vendors, service providers, enterprises, industry forums, standards bodies, system integrators, and software and middleware providers, to deliver on the promise of IP convergence.

Several of the industry's pioneers, including Empirix, Sonus Networks, Tekelec, Genband, Trendium and GlobalTouch Telecom, have already committed to participating in the IMS Forum Plugfest.

"The IMS Plugfest represents a significant milestone in the Forum's mission to accelerate the deployment of IMS by resolving critical interoperability issues, developing best practices, and showcasing standards-based architectures in the application layer," said the IMS Forum's chairman, Michael Khalilian. "IMS

is fundamental to next-generation IP services deployment, as it allows the realization of true fixed-wireless convergence. However, IMS adoption and development is still in its nascent stages, and many questions. The IMS Forum Plugfest represents the ideal setting in which to clarify the ambiguity surrounding this emerging standard."

New research from Frost & Sullivan indicates that the IMS market is due to grow from the $2.5 billion of last year to $12.6 billion by 2012. This growth will be driven primarily by a raft of new services and systems that IMS technology enables.

"I am impressed with the IMS Forum's commitment to collaborating and working with other groups and standards bodies for the continued advancement of IMS architecture, and to ensuring that there is no duplication of efforts within the industry," said Ronald Gruia, senior telecom analyst, Frost & Sullivan. "With IMS poised to serve as a primary catalyst for telecommunications growth over the next five years, there is a definite need for applications and service certification and interoperability, a much under-emphasized aspect of telecommunications."

"Vendor interoperability is crucial for accelerating the adoption of the IMS architecture in the marketplace," said Lincoln Lavoie, senior engineer, UNH IOL. "The UNH-IOL is excited to partner with IMS Forum to realize its goal of conformance and interoperability among IMS devices."

"The IMS Plugfest is a critical first stepping stone to more significant development and deployment of IMS," said Duane Sword, vice president of product management for Empirix. "Interoperability testing is an essential technology-proofing process that requires the expertise and coordination powers of groups like the IMS Forum and UNHIOL to ensure success. We look forward to offering our IMS test and monitoring expertise to this and future IMS Forum Plugfest events."

As the Voice of IP Convergence, the IMS Forum comprises service providers, solutions providers, system integrators, and government agencies translating industry standards into revenue-generating services. Through its organized Plugfests, working group interaction, and other activities, Forum members are able to develop cost-effective technical frameworks for converged IP services over wireline, cable, 3G, Wi-Fi, and WiMAX networks.

For information on attending, testing, or sponsoring the IMS Plugfest, please contact IMS Forum Program Manager Debbie Hetland at dhetland@imsforum.org or 510-608-5907.

About the IMS Forum

The IMS Forum is a global, non-profit industry association devoted to interoperable IMS services and solutions. The mission of the Forum is to accelerate the adoption of IP Multimedia Subsystems (IMS) by providing an environment for discussion and resolution of real-world implementation issues relating to interoperability, best practices, and standards-based architectures in the application layer. In addition, the Forum will provide consultancy to the industry, service providers, and vendors on best practices and approaches for IMS rollouts and interconnectivity.

For additional information or to join the IMS Forum, please visit www.IMSForum.org.

DVB-S2

IPoS.v2 incorporates DVB-S2 standard providing higher system availability and greater throughputs

Hughes Network Systems, LLC (Hughes) announced that the European Telecommunications Standards Institute (ETSI) has approved the Internet Protocol over Satellite.v2 (IPoS.v2) air interface standard, which incorporates the DVB-S2 industry standard with ACM (Adaptive Coding and Modulation). IPoS is the most widely deployed satellite broadband standard in the world. Its first

version was approved by the world's major standards organizations: the Telecommunications Industry Association (TIA) in North America, and ETSI and ITU (International Telecommunications Union) in Europe.

"We applaud ETSI for embracing the newest version of IPoS, which fully integrates the DVB-S2 standard with ACM," said Pradman Kaul, chairman and CEO of Hughes. "This standard takes satellite broadband performance to the next level. Along with higher speeds and improved bandwidth utilization, IPoS.v2 enables significantly improved operational efficiency."

IPoS is a leading industry standard, with over 900,000 compliant terminals shipped to date, and is optimized for delivery of broadband services over satellite channels. IPoS specifies a "Satellite Independent Service Access Point" (SI-SAP), which creates a well-defined interface between the satellite-dependent functions and the application layers, thereby enabling an open-service delivery platform. With the addition of DVB-S2 including the ACM feature, IPoS-compliant networks optimize link performance even during high rain conditions by adjusting error-correcting codes and modulation dynamically, based on signal quality feedback from remote terminals.

Since it invented the VSAT in the mid-'80s, Hughes has been a primary driving force in developing new technologies and contributing to the advancement of standards for the satellite networking industry. Its HN System, launched in the spring of 2006, is fully compliant with the IPoS standard including DVB-S2, supporting very high throughputs of up to 120Mbps and offering increased network availability while conserving power consumption.

DVB-S2 intellectual property rights holders announce favorable licensing terms under joint licensing program

The DirecTV Group, RAI, and ESA, the holders of key DVB (Digital Video Broadcasting)-S2 intellectual property rights, announced the fundamental terms of a comprehensive licensing offering under their combined patent rights for DVB-S2 standardized technology.

The offering will set limits on cumulative royalties paid for the licensing of intellectual property rights in order to speed adoption of the DVB-S2 standard. DVB-S2 is the second-generation DVB system for broadband satellite communications, covering digital TV and HDTV broadcasting, interactive services, and professional links by satellite.

The three rights-holders will jointly offer a license under their combined portfolios of intellectual property rights necessary for the implementation of DVB-S2. For consumer applications, such as satellite television set-top box receivers, a license under the combined portfolios will not exceed $0.50 per product in quantities exceeding 500,000 over the term of the license and not to exceed $1.00 per product in lower quantities. Licenses for consumer applications will be granted for five-year terms. Renewals will be granted on fair and reasonable terms based on then-current market conditions.

Free-to-air and pay-TV broadcasters will not be required to pay a separate service license fee to broadcast to licensed receivers. The per-product royalties and the arrangements for broadcasters are geared to help launch DVB-S2 technology and follow the commitment of the rights holders to offer licenses on fair, reasonable, and nondiscriminatory terms.

"We feel that it is important to confirm to the marketplace that the cumulative royalties for the licensing of known essential IPRs will indeed be fair and reasonable," said Dr. Alberto Morello, director of the RAI Research Centre.

" DirecTV developed essential DVB-S2 coding technology to significantly expand the capacity of its direct-to-home broadcast business. By confirming that a license under the DirecTV, RAI and ESA patents will not exceed $0.50 per consumer product — with no additional service royalties or other service fees owed by free-to-air and pay-TV broadcasters — manufacturers and service providers will now

be able to set their business models to take advantage of this important technology," added Romulo Pontual, executive vice president and chief technology officer of DirecTV.

"We expect that these conditions will foster a rapid adoption of this innovative standard by the global satellite broadcast and telecommunication industry," concluded Giuseppe Viriglio, ESA director of telecommunication and navigation.

The licensing model under the combined portfolio for interactive and professional applications such as pay-TV, data broadcasting/ Internet access and satellite news-gathering will be announced shortly. DirecTV, RAI, and ESA, however, confirmed that the cumulative royalties for the related equipment (e.g., modulators, demodulators, etc.) are not expected to exceed 1 percent to 2 percent of the equipment cost.

For broadcast applications (using QPSK and 8PSK modulations only) the licensing program will be administered by DirecTV (contact John T. Whelan, john@baysidelaw.com). For the other cases, including, for example, professional/interactive applications and advanced broadcasting using 16APSK and 32APSK, the program will be administered by each entity (contacts: DirecTV: John T. Whelan, john@baysidelaw.com; RAI: Alberto Morello, a.morello@rai.it; ESA: Luz Becker, luz.becker@esa.int). The rights-holders are nearing completion of work on a form of license agreement. Entities which believe they hold patents essential to the DVB-S2 technology are encouraged to contact Mr. Whelan at john@baysidelaw.com.

OIF

OIF finalizes SPI-S
New scalable protocol can handle hundreds of Gigabits per second
The Optical Internetworking Forum (OIF) has finalized the highly anticipated Scalable System Packet Interface (SPI-S) implementation agreement, making the high-

speed interface available for immediate deployment. SPI-S is a robust, channelized, streaming-packet interface that scales from 6Gbps to hundreds of Gbps for chip-to-chip and backplane applications. A successor to the widely deployed OIF SPI 4.2 interface, SPI-S leverages the OIF's Common Electrical Interface (CEI) to take advantage of high-rate serial physical interconnects.

"The OIF's existing System Packet Interface SPI 4.2 is the most widely deployed chip-to-chip streaming interconnect for high speed data paths," said Dave Stauffer of IBM and chair for the OIF's Physical and Link Layer Working Group. "Given the highly scalable nature of the new SPI-S, it should have legs to stand for a decade or more as the industry's next definitive streaming-packet interface. The speed and number of bit lanes employed by SPI-S can be directly scaled to very high rates."

SPI-S is specified to run over CEI, which is defined at 6 and 11Gbps for both short-reach and long-reach applications. SPI-S can also be used with other physical interconnects including OIF's SxI-5. The OIF also recently announced the initiation of a CEI-25 project to extend the CEI serial interface into the 25Gbps range. The scalable nature of SPI-S will allow it to take advantage of CEI-25 when the next-generation interconnect is fully defined.

SPI-S uses either industry-standard 64B66B framing or, optionally, the enhanced OIF CEI Protocol (CEI-P) framing that provides Forward Error Correction (FEC) support, yet retains a 64/66 clock ratio. FEC is likely to be useful when 11Gbps PHYs are used in backplane applications and when future, higher-speed PHYs are employed.

SPI-S also retains the high-availability focus of the SPI family of interfaces. Like those other protocols, SPI-S is defined to be self-recovering from a catastrophic event on its interface such as a protective switchover of a card.

The SPI-S implementation agreement is available to the public at www.oiforum.com/ public/documents/OIF-SPI-S-01.0.pdf.