

**Telecommunications
Industry
Association**



2004 Annual Report



Advancing Global Communications

STEP BEYOND WHAT'S NEXT



We're living and working in the next generation of ICT. It's wired. And wireless. Data-centric. And IP-driven. Converged. And rapidly changing.

At the center of it all is GLOBALCOMM. A bustling marketplace that connects you. To people. Solutions. Opportunities. To the business of communications. And the businesses that communicate to gain an edge.

Today, it's all about any time. Any where. From any device. **GLOBALCOMM is about tomorrow. And preparing you to go beyond what's next.**



JUNE 4 – 8, 2006 / MCCORMICK PLACE / CHICAGO / USA

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Mission Statement

TIA is the leading trade association for the information and communications technology (ICT) industry. Owner and producer of GLOBALCOMM™, TIA works on behalf of ICT suppliers serving global markets through its leadership in standards development, domestic and international policy advocacy, and facilitating member business opportunities. TIA represents the communications sector of the Electronic Industries Alliance (EIA). Visit us at <http://www.tiaonline.org>.

GLOBALCOMM™ is a trademark of the Telecommunications Industry Association. The Next-Generation Communications Marketplace and Summit will take place June 4-8, 2006, at Chicago's McCormick Place. For more information, go to www.globalcomm2006.com.

Letter from the TIA Leadership

TIA's productive programs — creating world-class technical standards, advocating pro-competitive policies, and generating viable sales leads for members taking part in SUPERCOMM® and other events — played a key role in ending the economic downturn for many companies.

After several years of turmoil, the industry is stabilizing. Certainly, 2004 finally provided more ups than downs for most companies and for the association itself. 2005 should even provide a bit of an upturn.

This annual letter and report mix a brief look back with a glimpse around the corner we have turned as an industry. You'll read about TIA's primary services... and resulting benefits to member companies such as yours. Of course, those taking an active role benefit the most.

In the technical arena, 1,200 industry volunteers developed nearly 200 documents last year that were published, reaffirmed, revised, upgraded or withdrawn. We opened 102 new projects, and 192 standards proposals/ballots were issued with even more production expected in 2005. Emphasis continues on wireless broadband, fiber optics, satellite and user premises equipment. There is also focus on benefits for public safety interoperability, applications for first responders in the emergency communications and public safety field, and critical infrastructure/homeland security activities.

On behalf of members interested in the global market, TIA staff and committee volunteers represented the industry at technical meetings in Asia, Europe and North America. Category 6 and 3G standards, among others, are being developed. Equipment built to TIA 3G standards has a large market share of 3G networks worldwide.

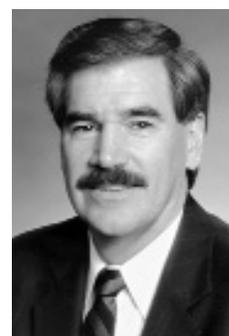
Meanwhile, our work on public policy was more intense than ever, both domestically and globally. Spectrum relocation for advanced services, regulatory freedom for voice over Internet protocol, federal loans for rural broadband, government support for funding telecom research and interoperable first responder communications, and convergence/next-generation networks issues all received strong attention to foster market opportunities.



Michael D. Kennedy

TIA Chairman

*Senior Vice President
and Director, Global
Government Relations
Motorola*



Matthew J. Flanigan

TIA President

SUPERCOMM® is a registered trademark of the Telecommunications Industry Association (TIA) and the United States Telecom Association (USTA).

In addition, association staff and committees aggressively advocated the benefits of broadband worldwide. In 2004, special attention was given to China, where TIA has been active for a decade through the U.S. Information Technology Office — most recently targeting procurement policies and conformity assessment processes. In Korea, TIA has addressed market access problems.

Sales lead generation and business development promotion continue to be vital TIA services. With nearly 26,000 visitors, nearly 700 exhibitors and 150 educational sessions, SUPERCOMM® 2004 resumed growth and continues as the marketplace for member products and services.

SUPERCOMM® INDIA each February continues to grow, providing strong leads in one of the hottest international markets. Of equal benefit are TIA's USA Pavilions in the International Telecommunication Union's ITU TELECOM shows such as the Americas event October 3-6, 2005, in Brazil and the worldwide exhibition December 4-8, 2006, in Hong Kong...the first time for the exhibition to be held outside Geneva since the show's inception in 1971.

Of course, the association offers many other programs, ranging from its Supplier Diversity Summit and the China-United States Telecommunications Summit to the Spring Policy Summit, all bringing together buyers, sellers and policymakers. Each January we produce *TIA's Telecommunications Market Review and Forecast*, the industry's most comprehensive report on network services, enterprise and consumer markets, the mobile and wireless segment, and international telecom.

We see continued growth for 2005 as the industry's return to normalcy strengthens. Please increase your participation in TIA events and services — to maximize the sales leads, insightful information and networking opportunities your company will certainly gain.

Sincerely,



Michael D. Kennedy



Matthew J. Flynn

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*Executive Committee member

Industry Report

U.S. Market*

Spending in the U.S. telecommunications industry as a whole totaled \$785 billion in 2004, rising 7.9 percent, growing more than twice as fast as in 2003 and posting the largest increase since 2000.

U.S. spending on telecommunications equipment and software totaled \$152 billion in 2004, a 5.2 percent increase from 2003. From 2000 to 2003, network equipment and facilities revenue fell 71 percent, causing an overall decline in equipment revenue. In 2004, however, the market began to emerge from its slump with a 4.7 percent advance to reach \$16 billion. Wireless capital expenditures/WLAN/WiMAX equipment saw a modest 0.1 percent increase, reaching \$22 billion. The enterprise market expanded 5.9 percent — more than the combined gain of the previous three years — helped by spending on Internet protocol (IP) equipment and convergent systems.

Spending on transport services in 2004 reached \$299 billion. Local exchange services revenues remained flat in 2004 at \$124 billion. Long-distance service spending fell 4.2 percent, its fourth consecutive decrease, as the shift from wireline to wireless in long-distance traffic continued. Offsetting these declines in 2004 was a 14.6 percent increase in wireless services to \$102 billion.

Specialized services — high-speed Internet access, unified communications, videoconferencing public room services, audioconferencing service bureau spending and Web conferencing — remain a small but rapidly growing segment of the industry. Spending in 2004 reached \$33 billion, up 13.5 percent over 2003.

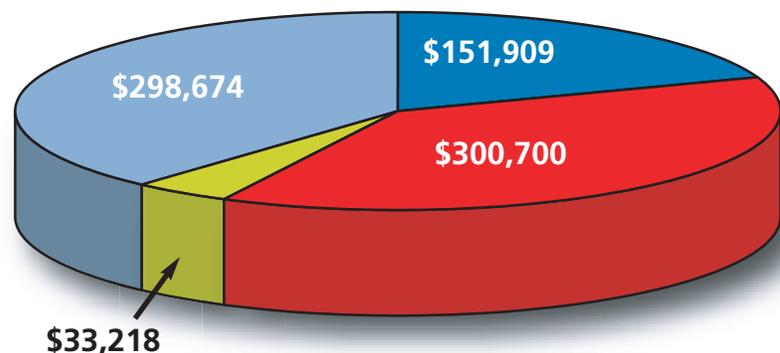
Spending on services in support of enterprise networks and customer premises equipment, and wireline, cable, wireless and broadband networks, grew 13.7 percent to \$301 billion in 2004. Support services include maintenance and repair, logistical support, integration of products from different vendors, technical assistance for hardware and software operations, end-user training and information technology consulting.

The U.S. telecommunications market is projected to grow at a 9.5 percent compound annual rate in 2005–08, reaching \$1 trillion in 2008.

The 2004 U.S. Telecommunications Market (\$ Millions)

Total: \$784,501 (7.9% increase)

Category	Increase over 2003 (%)
Equipment & Software	4.7
Transport Services	3.4
Specialized Services	13.5
Support Services	13.7



Source: TIA's 2005 Telecommunications Market Review and Forecast

International Market* and Trade in Telecom Equipment**

TIA's 2005 Telecommunications Market Review and Forecast covers Canada, Western Europe, Eastern Europe, Latin America and Asia-Pacific. Spending on telecommunications equipment and services for the five regions increased 10.2 percent in 2004 to \$1.4 trillion.

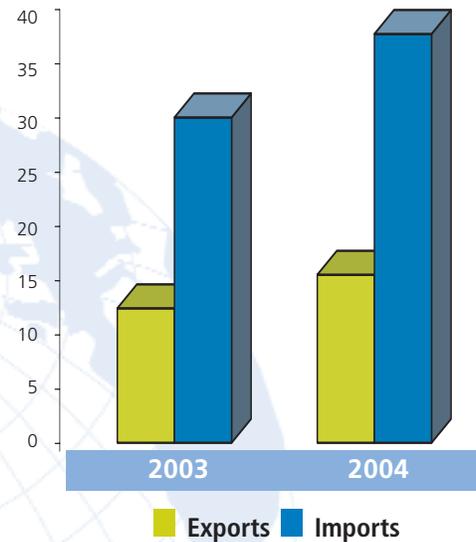
Equipment spending (network and enterprise) rose 5.7 percent to \$238 billion in the five regions. Transport services grew 8.0 percent to \$691 billion. Spending on services in support of equipment reached \$402 billion, a 14.8 percent increase.

Total U.S. trade volume in telecommunications equipment increased 19.7 percent in 2004 to \$52.8 billion. U.S. imports of telecommunications equipment rose 24.4 percent to \$37.3 billion and exports grew to \$15.5 billion, an increase of 24.2 percent. Mexico leads the top five export markets for telecom equipment at \$1.7 billion, with Canada, the Netherlands, Japan and the United Kingdom following.

*Source: TIA's 2005 Telecommunications Market Review and Forecast

**Source: U.S. Department of Commerce

2004 U.S. Trade in Telecommunications Equipment (\$ Billions)



Source: U.S. Department of Commerce

Top 10 U.S. Export Markets for Telecom Equipment (\$ Billions)

Country	2003	2004	Change (%)
Mexico	1.399	1.750	25.1
Canada	1.622	1.730	6.7
Netherlands	0.763	1.315	72.3
Japan	1.061	1.250	17.8
United Kingdom	0.753	0.970	28.8
China	0.602	0.660	9.6
Korea	0.418	0.500	19.6
Germany	0.421	0.480	14.0
Hong Kong	0.525	0.480	-8.6
Brazil	0.265	0.370	39.6
Total:	7.829	9.505	21.4

Source: U.S. International Trade Commission

TIA Advances Standards Development

Standards development at TIA continued at full throttle in 2004. The Standards and Technology Department took every opportunity to continue to work with the standards program leadership to reduce costs, including hosting meetings at TIA instead of hotels and limiting travel to only essential trips. These efforts resulted in further reduced meetings costs and resources spent on supporting the groups. Human resources devoted to supporting standards development were also consequently reduced.

Accomplishments

TIA and its engineering committees, subcommittees and working groups continued to meet industry demand for standards documents and accomplished much in 2004.

- 102 new projects were opened, 192 standards proposals/ballots were issued and numerous items were reviewed by the Technical Standards Subcommittee (TSSC).
- 186 documents were published, reaffirmed, revised, upgraded or withdrawn.

As secretariat, the association maintains more than 1,000 documents — from both TIA and the Third Generation Partnership Project 2 (3GPP2).

Staff continued to make improvements to TIA's Web and FTP sites in 2004. These sites contain copies of the TIA Engineering Manual, advisory notes and forms used to process standards. In addition, wireless and wired local area networks usage has been expanded for on-site distribution of work products created during engineering committee meetings as well as providing broadband access for the meetings.

The association wrapped up a major initiative launched at the request of the TIA Board to survey all of the committees, projects and priorities of the various standards groups supported by TIA, "recasting" and possibly renaming or restructuring the groups to show more visibly how they directly support new technologies being developed across the industry. The board also reaffirmed a policy on promotion of standards while maintaining technology and company neutrality by TIA, the standards development organization.

International Participation

On the international standards front, TIA participated in the work of the International Telecommunication Union (ITU) and its Telecommunication Standardization (ITU-T) and Radiocommunication (ITU-R) sectors, as well as in the work of the International Organization for Standardization (ISO), the International Electrotechnical Commission (IEC) and ISO/IEC Joint Technical Committee 1 on Information Technology (JTC1).

Major issues such as support for public protection and disaster relief activities, next-generation networks (i.e., packet data, fixed/mobile convergence), infrastructure and network security, as well as intellectual property rights policies for

TIA's Dan Bart (right) receives a 2004 Meritorious Service Award from Dr. George W. Arnold, chairman of the ANSI Board of Directors.





TIA is committed to promoting international standards development. Here, TIA participates in the CDMA450 Evolution Seminar: Technology, Services and Standards, held during June in Warsaw and co-hosted by 3GPP2.

copyright on source code used in Recommendations (ITU standards), took a great deal of time. TIA updated the ITU on changes, enhancements and new features added to its 3G wireless standards referenced by ITU-R as part of the Union's International Mobile Telecommunications (IMT)-2000 initiative to develop global 3G standards. TIA also facilitated the referencing of a TIA-developed Internet protocol over satellite solution by multiple ITU-R draft Recommendations, and TR-30 and other TIA groups developed several IP-related contributions for input to ITU.

The association also remained actively involved in the Inter-American Telecommunication Commission (CITEL), an agency of the Organization of American States, and participated in the Global Standards Collaboration (GSC-9) meeting hosted in Seoul, Korea (May 9-13). TIA is now preparing for GSC-10 in Sophia Antipolis, France (August 30-September 2, 2005) and planning has also begun for GSC-11 to be hosted by TIA in Chicago in May/June 2006 in conjunction with GLOBALCOMM™ 2006.

TIA continued its role as participant in and the Secretariat to 3GPP2. Together with the European Telecommunications Standards Institute, TIA also sponsors Project MESA — Mobility for Emergency and Safety Applications. Project MESA is a public safety partnership that represents the first international initiative to involve users and organizations from the public protection, disaster response and civil defense sectors in the development of user requirements and specifications to meet broadband mobile communications needs. Interest in public safety standards has continued to grow both domestically and internationally as all seek enhanced capabilities and interoperability of first-responders.

Leadership Roles

TIA maintained several other leadership roles in standardization in 2004, many of which are ongoing.

- Participated on the ANSI Board of Directors and ANSI Executive Committee as well as in ANSI's Executive Standards Council, Company Member Forum, Consumer Interest Forum and Patent Group and chaired the Copyright Ad Hoc of the ANSI Executive Committee.
- Participated on the ANSI Organizational Member Forum and chaired its Digital Rights Management Ad Hoc. Held leadership positions in the U.S. National Committee to the International Electrotechnical Commission (IEC).
- TIA's Dan Bart continued as the private sector co-chair of ANSI's Homeland Security Standards Panel (ANSI HSSP).
- TIA was an ANSI delegate in January 2004 at the ANSI/European Standards Organizations' (ESOs) meeting in Nice, France. Security standards were a topic on that agenda and were also discussed at the January 2005 ANSI/ESO meeting in Washington, D.C., where TIA was the issue manager for voice over Internet protocol (VoIP).
- TIA is part of the governance structure of the United States National Committee (USNC) to the IEC. The association provides Secretariat and Technical Advisory Group (TAG) Administrator services to several IEC groups and TAGs. TIA was selected to lead a Working Group on wireless infrastructure for Sector Board 4 of the IEC.

With the transition to the new Department of Homeland Security (DHS) in 2003 and the release of President Bush's Homeland Security Presidential Directive 7 (HSPD-7), TIA continued in 2004 to serve as a Telecommunications Sector Coordinator in support of Homeland Security Presidential Directive/HSPD-7 regarding critical infrastructure protection (CIP) and is a non-resident member of the National Coordinating Center Telecommunications Information Sharing and Analysis Center (NCC T ISAC). Additionally, TIA has a board seat on the Partnership for Critical Infrastructure Security

(PCIS), which handles cross-sector CIP issues.

Additional 2004 TIA standards-related accomplishments:

- Named to the National Cyber Security Partnership (NCSP) Steering Committee. This private/public partnership effort supports DHS and other government initiatives directed at cyber security.
- Continued as part of the Emergency Notification System (ENS) of the DHS Information Analysis Infrastructure Protection Directorate (DHS IAIP).
- Participated in several ANSI Homeland Security Standards Panel (ANSI HSSP) activities including two plenary meetings and serving as workshop moderator for an Emergency Communications and Citizen Preparedness Workshop in December. The ANSI HSSP, as another cross-sector activity, is the coordinating body for the development and enhancement of homeland security and emergency preparedness standards and conformity assessment, as developed by ANSI members and non-ANSI members.
- Appointed to the advisory committee of the National Public Safety Telecommunications Council (NPSTC) and to the advisory committee for DHS SAFECOM.
- Involved in the activities of President Bush's National Infrastructure Advisory Council (NIAC). Activities included prioritization of cyber vulnerabilities.
- Provided input to the draft U.S. National Response Plan, Private Sector Support Annex (2003/2004) via the NCC T ISAC and DHS Private Sector Office.
- Participated on a National Security Telecommunications Advisory Committee (NSTAC) Industry Executive Subcommittee Task Force focusing on next-generation networks (NGN) national security/emergency preparedness (NS/EP) needs.
- Participated in the Department of Commerce's Economic Security Working Group (EconSec WG) meetings and worked with its subgroups addressing such topics as international outreach, research and development, and support for bi/multi-lateral meetings.
- Supported the Global Disaster Information Network (GDIN) event in March 2004.
- Revised the TIA Intellectual Property Rights policy and ANSI closed the TIA 2003 Audit Report.

TIA Influences Public Policy

TIA is a respected advocate of public policies that promote competition, innovation and investment, and that foster a climate conducive to the continued emergence of new communications technologies. TIA's public policy efforts in 2004 focused on sustaining the recovery in the telecommunications industry and fostering its long-term growth. The association's Five Point Plan called for:

- A national broadband deployment policy
- Implementation of FCC framework for broadband deregulation
- Legislative tax incentives for broadband deployment
- Spectrum allocation for new services
- R&D funding for communications sector

During 2004, TIA hosted a number of events featuring a wide array of senior U.S. government policy-makers including Federal Communications Commission (FCC) Chairman Michael Powell and Commissioners Kathleen Abernathy, Kevin Martin and Jonathan Adelstein; Assistant Secretary of Commerce for Communications and NTIA Administrator Michael Gallagher; Ambassador David Gross, U.S. Coordinator for International Communications & Information Policy; and Congressman Fred Upton (R-Mich.), chairman of the House Subcommittee on Telecommunications and the Internet.

Domestic Policy

In 2004, TIA's domestic agenda emphasized supporting the adoption of policies that promote the widespread deployment of next-generation networks and technologies, including broadband in all its forms, as well as effective management of the nation's spectrum resources. As the evolution to a telecommunications infrastructure built on packet and Internet protocol (IP) technologies intensified, the association committed more resources to addressing the revolutionary impact of IP-enabled applications and services on the legacy regulatory and policy structure. Meanwhile, the ongoing focus in Washington on homeland security meant continued interest in issues such as critical infrastructure protection, funding for interoperable communications equipment for first responders, and electronic surveillance of new communications technologies.

Congressman Fred Upton (R-Mich.) provided insight on key priority telecom and high-tech issues on the agenda for the remainder of the 108th Congress at TIA's March 2004 Board of Directors Meeting, held in conjunction with TIA's Spring Policy Summit. From left: TIA President Matthew Flanigan; Congressman Upton; President and CEO, Westell Technologies Inc. and TIA Vice Chairman Van Cullens.





TIA members and staff discuss the association's policy priorities and initiatives. From left: Bill Plummer, Nokia and TIA board member; Derek Khlopin, TIA; Tim Regan, Corning Inc. and chair, TIA Fiber Optics Division.

■ BROADBAND DEPLOYMENT

- Continued support of the multi-pronged initiative of the FCC to craft a minimally regulated space for broadband. In the aftermath of court reversal of much of the FCC's 2003 Report and Order in the *Triennial Review of the Network Unbundling Rules* proceeding, TIA worked to preserve the judicially sustained portion of the decision. Specifically, the agency adopted the proposal of TIA and the High Tech Broadband Coalition, which TIA helped form, to relieve from the unbundling requirements new fiber and packet electronics deployed in broadband networks.
- Supported the *Broadband Internet Access Act* and other legislative efforts to offer fiscal incentives for broadband deployment, particularly in rural and underserved areas. Continued working closely with the Rural Utility Service in the Department of Agriculture on its rural broadband loan program.

■ VOICE OVER IP

- Adopted formal statement of principles on the regulation of VoIP, calling for minimal regulation and urging a refrain from attempting to simply impose the legacy telephone model on IP services.
- Filed extensive comments and reply comments in the FCC's far-reaching IP-enabled services proceeding, urging that a light, exclusively federal approach govern the IP services market.
- TIA's first comment submission at the state level challenged the authority of the California Public Utilities Commission to regulate VoIP providers as traditional telephone companies.

■ SPECTRUM MANAGEMENT

TIA's Spectrum Policy Working Group (SP WG) produced association filings in various FCC open proceedings including:

- Cognitive Radios (Software Defined Radios)
- The "Interference Temperature" Concept
- Wireless Broadband Access
- Unlicensed Operations in the Television Broadcast Bands

The association promoted spectrum policy positions both domestically and internationally by participating in various fora. Matters related to public safety and first-responders' communications needs, wireless broadband networks, additional spectrum for unlicensed devices, an accelerated digital television transition and sound spectrum management policies were emphasized.



TIA President Matthew J. Flanigan thanks Acting Assistant Secretary of Commerce and NTIA Administrator Mike Gallagher for participating in TIA's 5th Annual Spring Policy Summit. From left: TIA Vice President External Affairs and Global Policy Grant Seiffert; TIA Chairman Mike Kennedy of Motorola; NTIA Administrator Gallagher; TIA President Flanigan.

■ TELECOM RESEARCH FUNDING

Increasing federal funding for telecommunications research is a TIA priority. It is an effort being driven by multiple association member companies due to the long-term impact of research funding on maintaining the global competitiveness of the United States, as well as the potential for research-related contracts that would result from greater budgetary allocations. At SUPERCOMM® 2004, association staff organized an inaugural meeting of TIA's Chief Technology Officer (CTO) Council, whose mission is to increase federal funding for telecom research. By the end of 2004, the CTO Council created a list of priority areas requiring federal funding, as well as developed a set of talking points to be used in meetings with government officials. These talking points explain the imperative for increasing federal telecom research funding.

International Policy

TIA addresses key market access barriers faced by members in conducting business abroad and advocates policies that encourage growth in the telecom sector globally.

■ INTERNATIONAL TRADE

- Submitted two sets of comments to the United States Trade Representative for its annual Section 1377 Review (compliance with telecom trade agreements) in January and December, and provided comments in December to the U.S. Department of Commerce on the annual National Trade Estimate Report on Foreign Trade Barriers. Comments submitted directly reflect trade problems impacting the bottom line of TIA member companies.
- Continued to advocate on behalf of members' interests in the Chinese market, the largest fixed line and mobile market in the world, as well as monitored and provided comments to the U.S. and Chinese governments on China's trade policy.
 - In 2004, TIA chaired the U.S. Information Technology Office (USITO), TIA's Beijing affiliate representing five trade associations and over 50 individual member companies.
 - TIA also worked through USITO to organize events with the Chinese government and advocate on issues such as procurement policies, standards development activities, conformity assessment processes and implementation of China's WTO commitments related to telecommunications technology and services.
 - TIA organized a contract-signing ceremony for seven member companies striking deals worth approximately \$2.32 billion with Chinese customers on January 13, 2004, in Washington, D.C. Cabinet-level U.S. government representatives as well as senior U.S. Chinese officials and business executives were in attendance.
 - Co-organized a day-long session in Beijing on standards and conformity assessment at a workshop organized by the U.S. and Chinese governments.

- Worked with TIA member companies to lobby the Korean government regarding technology mandates that would block TIA member companies from selling their technologies in Korea. Due in large part to TIA efforts, the Korean government will allow other TIA member technologies to compete with the Wireless Internet Platform for Internet (WIPI).
- Played a significant role in Costa Rica's acceptance of a telecommunications chapter in the proposed U.S.-Central American Free Trade Agreement.
- Promoted TIA member interests in U.S.-government free trade agreement discussions with Bahrain, Colombia, Morocco and Thailand.
- Participated in a Geneva-based WTO symposium focused on the expansion of the Information Technology Agreement (ITA). Since the signing of the ITA in 1996, a number of IT and telecommunications products have been developed that were not in commercial use at the time of the original agreement, and a number of products used in IT and telecommunications were too contentious globally to be included in the original agreement (e.g., some LCD screens). Many TIA members are directly affected by existing tariffs on these products.

■ INTERNATIONAL BROADBAND DEPLOYMENT

- Hosted a broadband forum on January 10 at the Consumer Electronics Show in Las Vegas with the Communications and Information network Association of Japan (CIAJ). Industry leaders from Japanese and U.S. companies focused on next-generation network technologies, content, applications and security/public safety issues.
- Attended two ITU-D Study Group meetings focused on broadband access technologies. The TIA white paper, "The Economic and Social Benefits of Broadband Deployment," makes up a substantial part of the final report for the ITU-D question, which is due for completion by mid-2005.
- Participated in the drafting of Asia-Pacific Economic Cooperation (APEC) broadband principles with U.S. government and industry representatives. These principles are to be presented to the APEC Telecommunications Group in Thailand in March 2005, and a final document will be submitted to the 6th APEC ministerial meeting in Peru in 2005. If approved, these principles, largely in line with those of TIA, will be presented to the Presidents of the 21 APEC economies.

■ CHINA-U.S. TELECOMMUNICATIONS SUMMIT

The China-U.S. Telecommunications Summit 2004 was a joint project between TIA and the U.S. Department of Commerce. The event, held in Chicago on the days preceding SUPERCOMM®, attracted over 200 high-level officials from both China and the United States, including U.S. Commerce Secretary Donald Evans and China's Minister of Information Industries Wang Xudong on his first trip to the United States. The summit provided TIA member companies an opportunity to engage in dialogue on telecommunications and information tech-

The China-U.S. Telecommunications Summit provides member companies an opportunity to network with leading Chinese government and industry officials on telecommunications and information technology developments in China. Here, Secretary of Commerce Donald Evans addresses Summit attendees. From left: TIA President Matthew J. Flanigan, Secretary of Commerce Donald Evans, Minister of Information Industries Wang Xudong, CIC Vice Chairman and Secretary General Liu Cai.



nology developments in China with senior Chinese government and industry officials, as well as provided U.S. firms an opportunity to promote U.S.-based technology and services.

■ SUPERCOMM® 2004

TIA's External Affairs and Global Policy Department organized its first annual policy conference at SUPERCOMM® 2004 entitled, "Roadmap to Recovery." The conference was a tremendous success, attracting 700 attendees, from CEOs to marketing and sales personnel. The conference not only proved the department's ability to successfully carry out substantive policy programming at the trade show, but it also highlighted significant areas of TIA staff competency in which TIA is working to influence policy in Washington, D.C. The conference was divided into three panel discussions, focused on increasing federal funding for telecommunications research, voice over Internet protocol (VoIP) and IP services, and wireless broadband. The program also included nearly 30 senior government and industry panelists and featured keynote speeches by FCC Commissioner Kathleen Abernathy and Rural Utilities Service Administrator Hilda G. Legg.

Product-Oriented Divisions

In many instances, TIA pursues its members' interests in technical regulatory matters through its product-oriented divisions.

■ WIRELESS COMMUNICATIONS DIVISION

The Wireless Communications Division (WCD) continued to provide technical expertise for TIA filings on subjects as diverse as advanced wireless services including third-generation (3G), additional spectrum allocations, spread spectrum devices, cellular and PCS rules, E911 call processing modes, spectrum reform, emergency alert systems, out-of-band emission limits, unlicensed devices and wireless broadband.

The division again focused attention on public protection and disaster relief efforts including participation in the FCC's National Coordinating Committee and Project MESA (Mobility for Emergency and Safety Applications).

WCD's Technical Regulatory Issues Committee (TRIC) continued its dialogue with the FCC's Office of Engineering and Technology (OET) leading to streamlining the FCC's rules and accelerating FCC processing wireless products' certification. The partnership between TRIC and the FCC lab has led to several process improvements.

WCD's Private Radio Section recommended changes to the FCC's rules for public safety transmitters and participated in the work of the National Coordination Committee and Project MESA.

■ SATELLITE COMMUNICATIONS DIVISION

The mission of the Satellite Communications Division (SCD) is to address issues affecting the continued development of the satellite industry, such as interoperability and utilization of scarce spectrum. In 2004, the SCD oversaw the continued development of a standard for IP over satellite communications and worked toward the global harmonization of the IP over satellite standard within the International Telecommunication Union. Members of the division also actively participate in TIA's Spectrum Policy Working Group.

TIA's Grant Seiffert presents an award to USDA's Administrator, Rural Utilities Service Hilda Gay Legg on behalf of the High-Tech Rural Broadband Alliance.



■ USER PREMISES EQUIPMENT DIVISION

The User Premises Equipment Division (UPED) works on regulatory issues affecting manufacturers and suppliers of customer premises equipment (CPE).

Primary focus areas for UPED in 2004 were hearing aid compatibility (HAC), Section 508 of the Rehabilitation Act, the now-privatized Part 68 of the FCC Rules and Regulations, VoIP and E911 issues. UPED provided technical expertise for a TIA filing on E911 calling systems for multi-line telephone systems.

Section 508, which requires accessible electronic and information technology in the federal sector, spotlights making rapidly growing, feature-rich technologies available to individuals with disabilities.

Overseen by the Administrative Council for Terminal Attachments (ACTA), the now privatized Part 68 of the FCC Rules allows the industry to set technical requirements for new CPE via American National Standards Institute-accredited standards development organizations. It enables manufacturers to certify the products via a Supplier's Declaration of Conformity or other approved organizations such as certification bodies. This has expedited the process for bringing innovative telecommunications equipment to the marketplace, has increased the choices of available CPE to consumers, and has saved manufacturers millions of dollars a year.

The policy and regulatory implications of widespread deployment of VoIP technologies have been discussed, especially as they relate to hearing aid compatibility (HAC) and teletypewriters (TTYs).

UPED established a Cordless Telephone HAC Working Group to address issues raised by the disability community. The working group has met with FCC officials, university researchers, standards developers and advocates for the hearing disabled to coordinate a resolution to the issues.

■ FIBER OPTICS DIVISION

In 2004, the Fiber Optics Division (FOD) was an important contributor to TIA's aggressive advocacy efforts before the FCC on its series of proceedings to develop a framework for regulation of broadband services and facilities.

FOD continues working towards removing the regulatory disincentives to investment in new broadband facilities, critical to fostering an environment conducive to pushing fiber out to customers' premises.



TIA Builds Business Opportunities

SUPERCOMM®

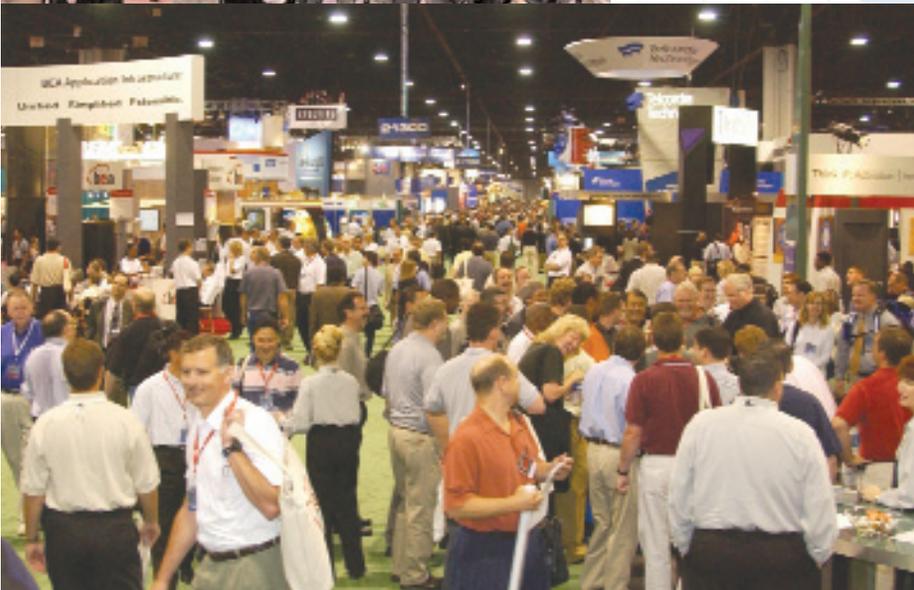
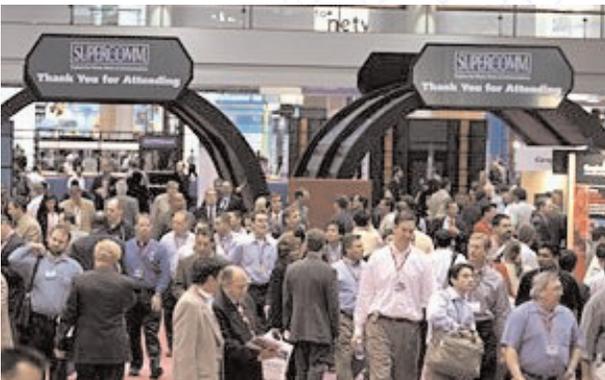
With its new venue in Chicago and a menu of nearly 700 exhibits, as well as scores of conference sessions and free educational programming, SUPERCOMM® 2004 proved to be a success and reinforced signs of recovery throughout the industry. New and veteran SUPERCOMM® exhibitors alike were enthusiastic about both the quantity and quality of visitors, and many companies expanded their booth size for 2005. Numerous SUPERCOMM® keynotes and panels saw standing-room-only crowds. The atmosphere clearly reflected an industry emerging at last from its economic struggle.

SUPERCOMM® 2004 posted increases in both attendance and exhibits over the 2003 show. Total exhibitors numbered 691, a 25 percent increase, occupying 302,820 net square feet, 10 percent more than in 2003. The total number of attendees at SUPERCOMM® 2004 was 25,965.

The move to Chicago proved to be beneficial. The host city and a broad base of affiliated organizations provided impressive support for the show. With its central location, global reach and superb facilities, it is clearly the right host city as the industry positions itself for continued sustained growth.

Once again in 2005, nearly 700 exhibiting companies and 30,000 industry professionals from more than 100 countries are expected to come together in June for what is shaping up to be the year's blockbuster event. In addition to the nearly sold out exhibit floor,

Nearly 26,000 attendees from over 100 countries at SUPERCOMM® 2004 in Chicago attested to the recovery of the telecommunications industry.





FCC Chairman Michael Powell (right) discusses broadband, IP and the state of the industry with TIA President Matthew J. Flanigan during a SUPERCOMM® 2004 keynote session.

SUPERCOMM® 2005 will provide an educational experience led by industry leaders and technical experts in more than 150 sessions.

SUPERCOMM® 2005 will be the last show in the series. In October 2004, the United States Telecom Association (USTA), co-owner with TIA of SUPERCOMM®, announced they would not renew their contract with TIA subsequent to SUPERCOMM® 2005.

For more information on SUPERCOMM® 2005, visit www.supercomm2005.com.

GLOBALCOMM™

In October 2004, TIA announced a new component of its strategy to showcase total communications solutions through its events, standards and public policy efforts. GLOBALCOMM™, TIA's new annual exhibition and conference, will commence on June 4-8, 2006, at Chicago's McCormick Place.

GLOBALCOMM will bring together communications technology suppliers with service providers and enterprise users to create a converged, next-generation global telecommunications marketplace. The new event will offer an up-to-the-minute reflection of the technology, regulatory and business advancements driving the industry — IP network evolution, wireless-wireline convergence, inter-modal competition, video, content and asset management, critical infrastructure protection (security) and many other cutting-edge industry issues.

GLOBALCOMM will feature high level industry presentations, well-known public figures, as well as first-rate educational opportunities. Global industry organizations, trade and business analysts and media, innovation leaders and high-level government officials will also be an influential presence at the event.

TIA looks forward to this future together with its members and exhibitors who have been so instrumental in the association's success. For more information, visit www.globalcomm2006.com.

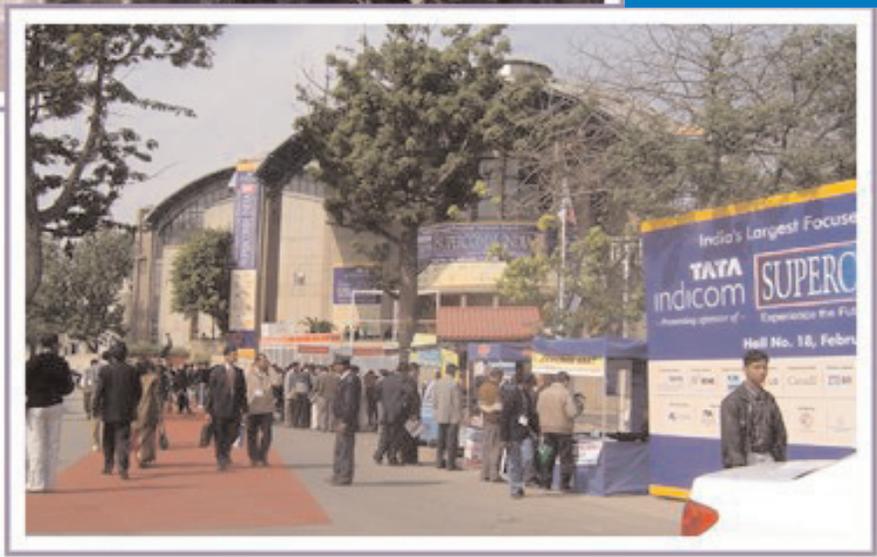
INTERNATIONAL

Find sales leads. Evaluate opportunities. Enter new markets. Meet prospective agents and partners. Gain insight into marketplaces outside the United States. Grow and broaden your business. Profit from annual 10 percent growth rates in some countries.

These are the results many TIA member companies enjoy when participating in international trade shows and other global programs organized each year by the association. TIA offers marketing leads through world-class international exhibitions in markets experiencing explosive growth in telecommunications such as China and India. Exhibit, sponsor or just attend trade shows/conferences such as SUPERCOMM® INDIA each February and TIA's USA Pavilions at International Telecommunication Union ITU TELECOM exhibitions in places such as Korea last fall and Brazil October 3-6, 2005. Your company will generate new business, network with potential



SUPERCOMM® INDIA is India's largest focused telecom event. Left, the crowded Opening Plenary attests to the high level of interest aroused by the event. Below, visitors' red-carpet treatment begins at the entrance to SUPERCOMM® INDIA.



customers, uncover offshore investment opportunities, and expand supply chain contacts and resources.

Asia continues to be the hottest market. TIA and its members are there. For example, TIA participated in ITU TELECOM ASIA 2004 in Busan, Korea, in September. The ITU shows attract high-level buyers from around the world and present great marketing and networking opportunities for TIA members. Many larger U.S. companies have offices in China, India, Singapore and elsewhere in the region, or participate in the association's U.S. Information Technology Office (USITO), which has been active in Beijing for a decade. Others take part in

India's Largest Focused Telecom Event

SUPERCOMM® INDIA 2004 was the largest in the annual series, exceeded only by the 2005 event, February 2-4 in New Delhi. The four-year-old exhibition and conference attracts more than 100 exhibitors, 15,000 industry and government visitors, and 300 conference delegates. As India's largest focused telecom event, it draws attendees from more than 30 countries, including Australia, China, Israel, Korea, the United Arab Emirates and the United Kingdom. Mark your calendar now to attend the new show GLOBALCOMM INDIA 2006 — February 20-22 organized by TIA and Inter Ads Ltd. of New Delhi.



TIA Chairman Michael D. Kennedy and senior vice president and director, global government relations, Motorola Inc., addresses inaugural session at SUPERCOMM® INDIA 2004.

exhibitions such as the annual SUPERCOMM® INDIA, February 4-6, 2004, and February 2-4, 2005. SUPERCOMM® INDIA 2004 grew to 14,611 business visitors and 325 conference delegates. SUPERCOMM®

INDIA 2005 was held February 2-4 in New Delhi and drew more than 15,000 industry and government visitors, surpassing the number that participated in the previous three events in a series that started in China in 2001. Still others will exhibit in the USA Pavilion at ITU TELECOM AMERICAS 2005, October 3-6 in Salvador da Bahia, Brazil.

TIA's international exhibitions like SUPERCOMM® INDIA and USA Pavilions in world-class ITU trade shows are certified by the U.S. Department of Commerce and strongly supported by the host governments. High-quality conference programs complement every TIA exhibition, helping to assure diverse, senior-level attendance from many countries. Exhibitors are ensured an excellent flow of traffic and housing reserved exclusively for USA Pavilion companies at the best venues. TIA assists its exhibitors with visas, hotel accommodations, freight forwarding, floor space selection and other aspects of global sales efforts.

Get active in the international marketplace or broaden your current international efforts. Also, mark your 2006 calendar now for the launch of a new event, GLOBALCOMM INDIA, next February in New Delhi, and ITU TELECOM WORLD 2006, December 4-8 in Hong Kong.

2005

- ❖ SUPERCOMM® 2005 **FINAL YEAR**
June 6-9, 2005
McCormick Place, Chicago
www.supercomm2005.com
- ❖ ITU TELECOM AMERICAS 2005
Official USA Pavilion, October 3-6, 2005
Salvador da Bahia, Brazil
www.itu.int/AMERICAS2005/
- ❖ IP.4.IT—Advanced Applications for the **NEW**
Innovative Enterprise
November 14-16, 2005
The Rio Hotel, Las Vegas
www.ip4it.com

2006

- ❖ GLOBALCOMM™ INDIA **NEW**
February 20-22, 2006, New Delhi, India
www.globalcommindia.com
 - ❖ GLOBALCOMM™ 2006 **NEW**
June 4-8, 2006, McCormick Place, Chicago
www.globalcomm2006.com
 - ❖ ITU TELECOM WORLD 2006
Official USA Pavilion, December 4-8, 2006
Hong Kong, China
<http://www.itu.int/ITUTELECOM/>
- For sales information, contact Tripp Taylor,
+1.703.907.7485, email ttaylor@tiaonline.org.

TIA Grows the Industry

TIA offers programs to grow the market by promoting emerging technologies, new customer opportunities and channels for convergence.

New Markets/Emerging Technologies

To assist members reach new markets, TIA conducted a variety of activities focusing on emerging technologies and trends in its Convergence Content Creation Programs

TIA continued to offer programs providing content for members through activities such as TeleForums and editorial submissions.

- Hosted TeleForums such as:
 - VoIP — The Migration Has Begun
 - Strategies to Grow Revenue: Identifying and Correcting Barriers to the Success of Your Sales Team
 - Developments Energizing the Marketplace
 - WiMAX — What's the Value Proposition?
- Article Placements
Discussion of the return on investment for convergence solutions and highlight topics such as opportunities for small/medium businesses in unified networks.
- Convergence-Capable Channel Development Initiatives
Initiatives focused on support for operational excellence, strategic planning, sales and marketing.
- Released Market-focused eNewsletters.
 - *TIA's TechTrends*
Launched a new quarterly eNewsletter focusing on developments energizing the telecom marketplace, featuring trends and forecasts for specific technologies.
 - *TIA's Channel Intelligence Report*
Released four issues of *TIA's Channel Intelligence Report* — an eNewsletter providing strategic channel perspectives and distribution insights for the convergence community.





Certification/Credentialing Programs

TIA's credentialing programs address today's convergence-capable workforce needs, help conserve member education resources, and provide outreach to IT professionals and employers. TIA continued to endorse two convergence certification programs:

- Certified in Convergence Network Technologies (CCNT) — a self-paced, online certification program testing on six key modules: Basic Telecommunications, Broadband Technologies, Computer-Telephone Integration, Data Communications, Local Area Networks and Voice over Internet Protocol (VoIP).
- Convergence Technologies Professional (CTP) — a high-stakes, vendor-neutral foundation for convergence technology-related jobs.

During 2004, TIA:

- Released the UK standards version of the Convergence Technologies Professional (CTP UK) exam. The CTP UK exam is separate from the North American standards version released in July 2002, with minimal changes to reflect terminology and standards unique to the United Kingdom.
- Introduced the official eLearning courses in conjunction with Thomsen NetG.
- Established additional relationships with industry companies such as Toshiba America Information Systems, Inc.

Small Business Focus

TIA's small business development initiatives serve member companies with annual telecommunications revenues of less than \$35 million. Small companies comprise approximately 85 percent of TIA's membership.

The TIA Advantage Program for small companies is designed to connect these members with potential customers and spotlight opportunities that can directly impact companies' bottom line.

- Small Business Development Committee — Members on the committee receive information about resources and networking opportunities for small companies to foster business partnerships and generate sales leads. In 2004, the committee guided activities for the Advantage Series TeleForums and various events within the SUPERCOMM® Marketing Program.
- Featured new members and small company product and service offerings in the association's publications such as the *TIA's Industry Beat* and *TIA's PulseOnline* to build awareness for small company offerings.



Supplier Diversity Summit participants meet one-on-one with corporate supplier diversity advocates to explore how to successfully navigate the telecom corporate supply chain.



Supplier Diversity

More than 450 people participated in the TIA Supplier Diversity Summit held at SUPERCOMM® 2004. The ninth annual summit focused on the state of the telecommunications industry and supplier diversity.

The morning panel session discussed strategies and tactics that would provide the greatest potential for diverse suppliers' success, survival and sustainable business. This forum created a platform for suppliers to discuss how they can refocus, capitalize on synergies and gain leverage from the experiences faced by corporations in telecommunications.

The morning session was followed by an afternoon luncheon where Minority, Women and Disabled Veteran-owned Business Enterprises (MWDVBEs) had the opportunity to meet one-on-one with corporate supplier diversity advocates. Participants explored how to successfully navigate the telecom corporate supply chain.

The afternoon panel session discussed how to utilize Tier 2 vs. Tier 1 suppliers to create efficiencies; teaming or bundling services and products by MWDVBEs to create "one-stop shopping," achieving Public Utility Commission economic development goals through supplier diversity efforts, outsourcing and offshoring as they relate to the challenge of MWDVBE participation, and managing risk via customer and market diversification planning. The event closed with a networking reception.

The 2003 results of the Supplier Diversity Challenge were announced at the event:

- Increased diversity spend to \$5.7 billion against a total domestic procurement of \$69 billion.
- Achieved an overall industry spend with diversity companies of 9.5 percent.

TIAB2B

TIAB2B, the association's business-to-business online exchange, helps members acquire new customers, sell products and obtain market share. It is a number-one communications resource on Google and has almost 6,000 registered users representing more than 3,000 companies. The ability for small- and medium-sized companies to reach new markets worldwide cannot be achieved on a scale that TIA and TIAB2B have achieved.

TIAB2B provides companies a place to post press releases, white papers, events and RFPs for free. The site acquires millions of page views every year and over 40,000 unique sessions a month. These sessions are from real communications buyers and sellers, governments, institutions and the military. If you want to grow your business and advance your online marketing, TIAB2B offers the most affordable and complete solution anywhere.

Go to www.tiab2b.com and let TIAB2B be a part of your online marketing and public relations plan: The skills, experience and world-wide reach of TIA will help you sell more products, find solutions to your communications problems and help improve your company's bottom line.



TIA Promotes the Industry

TIA's external communications promote the industry, issues vital to the association's membership, and TIA member technologies and services.

The association's proactive media outreach resulted in coverage in *The Washington Post*, *The Wall Street Journal*, *Chicago Tribune*, *CBS MarketWatch*, *Telephony*, *RCR*, *Wireless Review*, *America's Network*, *Tradeshow Week*, *Phone+*, *BusinessWeek* and *Communications Daily*, to name only a few.

Broadband policy and public safety and first responder issues have been among TIA's priorities, and many interviews addressed these topics. TIA is part of an international broadband communications partnership project, Project MESA, with the European Telecommunications Standards Institute (ETSI) and took an active role in media collaboration efforts to promote global standards for public safety applications. TIA also worked closely with the Fiber-to-the-Home Council to express the importance of increasing broadband deployment and related technologies and services to the home.

To educate end users and promote member technologies, TIA placed bylined articles in trade pubs such as *Radio Resource MissionCritical*, The Northern Virginia Technology Council's *The Voice of Technology* and *Certification Magazine*.

Publications

TIA publications serve as an industry resource. *TIA's Telecommunications Market Review and Forecast* is the association's annual study providing an overview of telecom's interrelated segments including network services, enterprise and consumer, mobile and wireless communications, and international markets.

The association launched an e-newsletter supplement, *TIA's TechTrends*, which complements *TIA's Telecommunications Market Review and Forecast* by providing timely industry data and analysis four times a year.

The inaugural issue of *TIA's Policy Flash*, a members-only monthly policy update for manufacturers and suppliers of communications and IT products and services, was published.

Other publications include *TIA's Channel Intelligence Report*, online newsletters, the *Annual Report*, and the *Standards and Technology Annual Report (STAR)*.

Internet and Web Development

TIA launched SUPERCOMM2004.com at the beginning of 2004 with new design and added functionality. The additional usability has enabled members and exhibitors to increase their visibility at SUPERCOMM® by investing in paid services offered online. In October, SUPERCOMM2005.com launched and attendee registration opened.

TIA continued to improve TIAONLINE.org and other Web sites maintained by the association. In July, the online standards documents submission forms were reconstructed to improve the step-by-step process and to comply with new requirements. In 2004, TIAONLINE.org achieved a total of 7.6 million external page views, an increase of 200,000 page views from the previous year.





ADVANCING GLOBAL COMMUNICATIONS

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TIA represents the communications sector
of the Electronic Industries Alliance.