

April 1, 2003

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## Standards Bearers

The ATIS plan to bring cooperation back to telecom  
An America's Network Staff Report

ATIS CEO Susan Miller (left) and Board Chair Ross Ireland

AN AMERICA'S NETWORK STAFF REPORT

# STANDARD bearers



In an era of dramatically reduced capital spending, it has become even more critical that the telecom industry focus on the right priorities.

Determining those priorities — and using them to drive technology development in the right direction — is the goal of the TOPS council, the brainchild of SBC chief technology officer Ross Ireland, Alliance for Telecom Industry Solutions (ATIS) president Susan Miller, and Bell-South president of interconnection services and chief technology officer Bill Smith.

TOPS (for “technical operations”) is a 19-member executive council composed of board members of ATIS, the non-profit telecom industry association. TOPS council members include Ireland, Smith and other telecom CTOs, along with high-level executives from key technology developers.

Established in 2002, the TOPS council’s work, to date, has been to reach consensus on the industry’s 16 most critical priorities, including the five most urgent (see page 24). Next, the group hopes to work with existing standards bodies to ensure that the technological guidelines to support those priorities are completed

in an efficient and timely fashion.

“Being first in the marketplace isn’t nearly as important as being the first to scale in the marketplace,” says Ireland. “So how do you get to effective scale? If I don’t have standards, then the only scale I get, the only scale advantage, is my own. If there’s a standard, and everybody is building to that standard, the boards can all be built to that standard, the interfaces can all be built to that standard. And when Bill goes out and procures equipment, he gets a lift because not only is he buying it, but so am I, so is Verizon, so is Qwest and so is AT&T. That’s an enormous value proposition that causes us to be much stronger and faster in the marketplace.”

Adds Miller, “A huge distinguishing factor that ATIS brings to the table is the senior level executives that sit on our boards of directors, that are responsible for the strategic direction of the industry. They all sit in positions within their companies to actually see implementation of that direction.”

To achieve its goals, ATIS has created focus groups for each of its top five priorities. Not to be confused with a moderated form of market research, the term “focus

group” in this context refers to the team that will be responsible for determining the key priorities within each technology area.

The focus groups also expect to cultivate relationships with existing standards organizations and set an overall work program for getting a single set of guidelines out to the industry, including a timetable of milestones and deliverables.

Both Smith and Ireland emphasize that the TOPS Council is not trying to pre-empt the work of any other standards bodies or to create standards of its own. Instead, the council hopes to reduce redundancies and ease the burden on both service providers and vendors, who must often devote significant resources to keeping up with standards efforts.

“I don’t know any company in our industry right now that can afford to send a full complement of people to every standards organization on every topic,” Smith says. “The overhead associated with that is tremendous, so we’re all just trying to figure out how to make the most efficient use of our technical resources.”

The TOPS Council might therefore present two standards bodies working on



# The ATIS plan to bring cooperation back to telecom

Standing: Susan Miller (left) and Ross Ireland  
Left to Right: Joe Berthold, Asok Chatterjee, Bill Smith, Venkates Swaminathan, and PJ Aduskevicz

Photo by Herman Ferrar Photography

the same technology with a formal agreement proposing that each group agree to focus on a certain area and that the groups honor each other's work.

"I think that kind of arrangement is something that most groups would find very non-threatening, and would actually increase the value of the work that they would do, and increase the value of the work that we would do," Ireland says.

ATIS also believes that this approach will reduce gaps in the standards development process — for example, ensuring that once the standards for building a technology and defining the service are assured, they will be able to interoperate with the standards for provisioning and billing for that service.

It's an approach that John Gonsalves, vice president of consulting firm Adventis, believes is critical for the efficient, cost-effective development of standards.

"Standards themselves are important, but the cost of standards development is important as well," Gonsalves says. "There needs to be more cost-efficiency, so people can stop spinning their wheels with multiple meetings, lots of players, etc."

"It's important for ATIS to eliminate overlapping initiatives and gaps where standards don't exist, because that will optimize the time and money and other resources that are spent on the standards process," he adds.

So why does TOPS believe its standards initiatives will succeed where other efforts have fallen short?

Smith points out that the TOPS Council is looking at standards from a business, not a technical, perspective. "We're trying to say, 'What are the business drivers, and then what technical work needs to be put in place to support those business drivers?'" Smith says. "I think that's a very different starting point than a lot of the standards agendas in recent years."

### Bill Smith



"We're not here trying to get standards for standards' sake," he adds. "We're here to try to meet business needs." — *Shira Levine and Joan Engbretson*

## PRIORITY: VOICE OVER IP

**Why it's hot:** Established carriers are getting serious about deploying VoIP

**What needs to be done:** Ensure interoperability of signaling and voice coding, and interoperability between wireless and wireline networks

**Groups likely to be affected:** ATIS T1, IETF, IEEE, wireless groups such as 3GPP

"Voice over IP has come to a point where it is a very real technology," says BellSouth chief technology officer and TOPS council VoIP focus group leader Bill Smith "Though somewhat immature, it's very real nonetheless."

The goal of the VoIP focus group, he adds, is to ensure that the technology does not fall into the same trap that ISDN and wireless did, where different vendors developed incompatible solutions, leaving service providers with islands of coverage that did not interoperate.

"It's time now to get aggressive in trying to resolve network-to-network interfaces and user-to-network interfaces," says Smith.

He emphasizes, though, that "the way these advisory committees or focus groups are intended to work is not to become yet another standards body in and of themselves, but to provide a little bit of — for lack of a better term — direction and oversight to all the different activities.

"We kind of laugh about it on our committee and say, 'Now it's time for the really hard work to start.' And ultimately it's going to depend on some of the leadership in various committees to pull together because I just don't think you can force these things to happen.

"And so the objective we have right now through the focus groups is to outline the agenda, then reach out to some of the key people that we know in the various committees, whether it's T1 or 3GPP. You kind of lay out the work plan and then say here's how we see it, could we reach a consensus on what the priorities are and then kind of divvy out the work.

"Let's take, for example, signaling standards and say, 'OK, let's look at all the dif-

## TOPS Council Priorities

The Top 5 are shown in blue

- **Wide area Ethernet**, including direct fiber access, passive optical networks, link level and service level management
- **Security**, including IP networks and 802.11 security
- **Data interchange billing**, including IP data records, VoIP provisioning and activation, inter-provider provisioning and QoS
- **Mobile wireless services**, including location services, push/pull services, multimedia
- **Voice over IP**, including network architecture interoperability, signaling, billing, QoS, numbering and security
- **Optical networks**, including intelligent switching, customer interface, performance management, network control
- **DSL evolution**, including architecture evolution to IP services, VDSL, voice over DSL
- **Wireless evolution**, including enhanced data-rate for GSM evolution, UMTS, cdma2000, defining 4G
- **IP telecom network management**, including IP routing and traffic engineering
- **Reliability measurements**, including wireless/wireline outages, E911 accuracy
- **Wide area storage**, including services to leverage transport capacity and e-business centers
- **Numbering**, including number portability, telephone number mapping (ENUM)
- **Emergency communications services for IP**
- **CALEA**, including wireless and wireline wiretap
- **E911 evolution**, including Phase 1 and II, wireless TTY calling
- **Priority access**, including wireless and wireline calling

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ferent activities that are underway around the world.' And it could very well turn out that the IETF has done more work on that than anyone else, so we might say, 'OK, let's all agree that for signaling, we're going to support the IETF work and we're not going to replicate that.'"

Smith expects the vendor community to be very receptive to the TOPS Council's work. "One of the other reasons for reaching out to some of the other standards groups is that most manufacturers today are trying to serve a global marketplace. And they have probably more interest than the service providers to try to come to a solution that will result in a global product opportunity." — *Joan Engebretson*

## PRIORITY: MOBILE WIRELESS SERVICES

**Why it's hot:** Wireless carriers view value-added services as a way to increase ARPU and reduce churn.

**What needs to be done:** Resolving and rationalizing standards for such services as multimedia messaging, location-based services, presence services and push services

**Groups likely to be affected:** ATIS mobile services systems subcommittee, T1P1, 3GPP, OMA, TR45.

One of the biggest questions confronting those who advocate the implementation of standards in the young, wild and far-ranging wireless wilderness is simply — can it be done?

The startling ascent of next-generation wireless services, influenced less by consumers and more by startups, mobile device manufacturers, m-commerce companies and even software giants, elicits both anticipation about cashing in on a newly hatched industry and paralysis over the idea that disparate agendas may critically undermine its enormous potential.

Mindful of these challenges, Asok Chatterjee, first vice chairman of the ATIS board of directors and chair of T1P1, an ATIS subcommittee for wireless/mobile services and systems, has very clear priorities and expectations for the ATIS wireless standardization effort.

### Asok Chatterjee



"Our role is to provide a basic framework so that a methodology can be established from which we can drive forward," says Chatterjee, who is vice president of public affairs for Ericsson.

The ATIS TOPS council will focus on virtually all of the oft-named, much-touted wireless services, such as MMS, IP multimedia, push services, roaming and presence services.

"Everything is on the table," says Chatterjee, who stresses that the program may be ambitious but it is also essential to create clear pathways for development of mobility — from the physical layer to the application layer. Without such cooperation, Chatterjee believes valuable resources would be lost.

The rise of the ATIS initiative coincides with last year's founding of the Open Mobile Alliance, an organization whose 200-plus members have established goals that sound similar to those of ATIS.

The OMA has created about two dozen silos, each of which addresses specific wireless service and infrastructure components, such as digital rights management, MMS and instant messaging. Members of OMA essentially don't want to see the wireless data movement splinter into competing camps.

The same is true of the ATIS initiative, says Chatterjee, who stresses that the presence of complementary goals between the two organizations does not represent rivalry.

"We absolutely expect collaboration," says Chatterjee, who himself was deeply involved with the creation of the OMA.

Despite criticism from some analysts that wireless standardization is too complex and unwieldy, Chatterjee is resolute and undeterred. "We fully expect to be getting down and dirty during the next several months," he says. — *Kirk Laughlin*

### Venkates Swaminathan



## PRIORITY: DATA INTERCHANGE AND BILLING

**Why it's hot:** Value-added services cannot be delivered quickly and efficiently without standards to dictate how various back office systems communicate

**What needs to be done:** Set up end-to-end processes by which information is passed from one operations support system to the next

**Groups likely to be affected:** Internet Protocol Detail Record Organization (IPDR.org), ATIS Ordering and Billing Forum (OBF), ETSI

Regardless of how cutting-edge a new technology may be, it won't make it to market without strong operational support systems behind it. Recognizing that, the TOPS council chose data interchange and billing as one of its five initial priority areas.

"If you look at other areas that the TOPS council and the ATIS board are focusing on—voice over IP, wireless, DSL—these are all services that many companies in this industry are trying to roll out," says Venkates Swaminathan, executive vice president and chief strategist of NightFire Software and leader of the data interchange focus group. "Without the right standards in place for how a service gets provisioned and billed across service provider boundaries, it's impossible to deliver services in a cost-effective way."

Swaminathan says the group will address all IT data interchange issues, including billing, provisioning, mediation and service management.

Members of the data interchange working group include Alcatel, AT&T, SBC, Verizon, Cisco Systems, Billing Concepts, Intrado, Leapstone Systems, BellSouth Billing and U.S. Cellular. By being part of the working group, both service providers and vendors benefit by being able to shape the standards that they need to run their businesses, Swaminathan says.

"They're part of the process," he says. "They determine what standards get developed and they guide that development process."

"OSS is a constantly-evolving sector."

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he says. "You can't just set up standards as a one-time thing and walk away from them. We will be continually working with standards organizations to review how the technology is evolving and how services are evolving." — *Shira Levine*

### Joe Berthold



Defining which services carriers want to offer will be a key goal of TOPS' Ethernet focus group—and Berthold emphasizes that there is room for multiple flavors of the service. But what the TOPS focus group would like to minimize is how many different ways each service is implemented.

The group's two other key priorities will be defining access and aggregation methods.

Access will be critical because the vast majority of businesses are served by copper wire—and to reach them, a method will have to be determined for encoding Ethernet signals onto copper. Emerging fiber access methods, such as passive optical networking, also will likely be considered.

"In the access area, you're mainly worried about what kind of signal processing do you do to get this stuff on copper or fiber and do it in a way that's going to be really, really cheap. In the metro aggregation area, now you're collecting traffic and distributing it to maybe a million customers and how do you do this efficiently. So that's more of a protocol issue rather than a digital signal processing issue."

In studying aggregation options, the committee will also seek to leverage Ethernet's statistical multiplexing capability, Berthold says.

More input from service providers would benefit the work of standards groups, says Communications Industry Researchers analyst David Gross, adding, "We need better input from different groups within the service providers. Finance often has a different view than operations. We need input from all these different groups." — *Joan Engbretson*

### Susan Miller



"One company's version of an Ethernet service might be 'Take a gigabit Ethernet connection, map it into Sonet, put it on an optical fiber and carry it 10 miles across the metro and then hand it off again. That's a point-to-point dedicated private line. And another company may have a view that they're offering Ethernet LAN service where they'll hook up 25 locations and you plug into their network and it behaves like your LAN and extends over the metro area.'"

## PRIORITY: SECURITY

**Why it's hot:** Service providers, manufacturers, software companies and the government all have placed renewed emphasis on security in the wake of 9/11.

**What needs to be done:** Resolving and rationalizing security standards for next-generation interfaces, 802.11 wireless LANs and IP networks

**Groups likely to be affected:** ATIS t1, IETF, ITU

ATIS' Network Security Focus Group, chaired by P.J. Aduskevicz, network vice president of disaster recovery, reliability and security at AT&T, will use findings from the recently convened ATIS Security Summit to define a coordinated standards development program for network security, said Susan Miller, president and CEO of ATIS during ATIS Security Summit: "Security of Service Provider Infrastructure in the Era of Convergence." Aduskevicz was unavailable for comment at press time.

As security has become an increasingly important national concern, ATIS is also working with the government to develop ways to prevent attacks, be they terrorist or otherwise. "ATIS is also involved with the FCC's Network Reliability and Interoperability Council VI, which addresses telecom network and Internet vulnerabilities for purposes of preventing disruptions that would result from terrorist activities, natural disasters or similar types of occurrences," Miller said.

Ross Ireland, ATIS board chair, serves as ATIS' representative to the NRIC VI. — *Suzanne Sanders*

### Ross Ireland



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