

# resource

A Telecommunications Newsletter

Winter 1998

WESTINGHOUSE COMMUNICATIONS

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## A Message from Bob Struble, President

# Why Westinghouse?

**W**hy Westinghouse Communications? That may seem like a strange question for a company president to ask, but, in fact, it is a question we address virtually every day. After all, if we can't come up with good reasons why Westinghouse Communications is superior to the competition, how can we expect our customers to come to that conclusion?

I spend a lot of my time out in the field talking with our customers. That, alone, sets us apart from most of the competitors. And I engage in frank discussions with our customers - I'll come right out and ask them how we stack up versus their other vendors. How can we make our service better? Is there something new they'd like to see us offer? These dialogues have led us to make several meaningful enhancements to our business and have strengthened our position with customers.

Another reason why customers should choose Westinghouse is that we excel at handling the hard stuff. Sure, we cover our share of standard long distance service with a few bells and whistles. But, at Westinghouse Communications, we really excel if your telecommunications needs are complex and far flung. Voice, data, remote access, multiple locations, remote sites. That's where our expertise really pays off for our customers. Especially if they don't have a large staff dedicated to telecommunications. We can become their total communications resource. And, as you'll read elsewhere in this issue, our commitment to excellence and providing complete solutions extends to the international market, as well.

Another big advantage we have at Westinghouse Communications is our size. We're large enough to have substantial technical and sales resources to get the job done, but nimble enough to treat every customer as an important customer. A million-dollar customer is very important to us, but wouldn't even show up on the radar screen of some of the other guys. That customer - and every customer - is going to get the level of service and support they

deserve, because at Westinghouse, they won't get lost in the shuffle.

Why Westinghouse? Because our whole focus is on providing real-world business solutions for our customers. Of course we have advanced technical resources; engineers who come up with great new products like the next generation of remote access and Cell Transfer Mode<sup>sm</sup> (CTM<sup>sm</sup>). But we've also got customer-oriented engineers, whose job it is to sit down with a customer for a couple of hours and listen - really listen - to what their telecommunications goals are, what they feel they need, now and in the future, and then work with all our people to come up with solutions to address those issues.

Why Westinghouse? Because our business is built on relationships. The same philosophy that lets a customer pick up the phone and call me with a problem and know he's going to get a rapid response pervades our whole organization. By getting to know our customers on a one-on-one basis, we can be proactive, not just reactive. And the comfort level we achieve with our customers means that they know they can say anything to us without taking it the wrong way. We're in this together, working toward the same goals.

But just because I have dinner with a customer, or we play golf together, isn't going to keep them as a customer if we don't deliver what we promise, if we don't bring that something extra to the table. So our reputation goes out on every job, with every employee, every day.

Why Westinghouse? It's simple, really. Because if your company and our company are the right fit, there's no one in the business who will service you better, be more responsive, provide more value, help you grow and reach your goals. Period.



# Westinghouse Communications Provides Vital Communications Links for CBS

**I**t's hard to imagine a greater communications challenge than setting up the telecommunications for the Olympic games in Nagano, Japan. *Resource* recently spoke with Tom Maile, CBS Vice President of Telecommunications, regarding how CBS and Westinghouse Communications met that challenge.

"This is the third Winter Olympics that CBS has done in recent history. We did the 1992 and 1994 games and now we're doing the Olympics in Nagano. In each case, the basic structure is the same. The hub of all of the radio and television operations engineering facilities for the Olympics, in Nagano, is a remote broadcast facility called the International Broadcast Center (IBC). The IBC is used by broadcasters from all over the world. CBS, alone, will have over a thousand people working the games, so as you can imagine, this is a major technical undertaking.

"Westinghouse Communications is playing a major role by providing CBS with communications - voice, data, and fax. Our

New York headquarters and all other CBS locations are linked directly to the IBC in Nagano, Japan. We have high capacity international circuits and use time division multiplexers to carve out a number of compressed voice channels, some discrete data channels and some fax bandwidth. That

way, we have dedicated and cost-effective direct connections between the CBS voice and data systems here and in Nagano.

"In addition, we are able to seven digit dial, from Nagano, to any other location on the CBS voice network in the

United States, and to the various game venues. That's important not just for ease of use, but

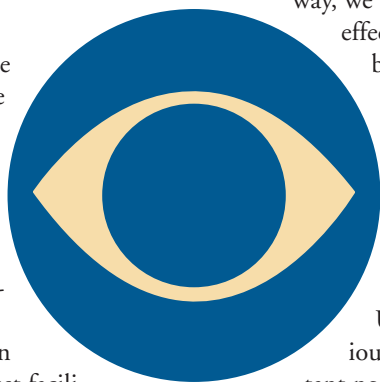
effectiveness and also a cost-savings perspective. We're able to carry those calls for much less than if we were relying on regular facilities.

"This was a two-year project for Westinghouse Communications. It just never stops. Every day - every hour - there is something changing, something is being modified.

The telecommunications required to link to all of the venues that are scattered around the country side is phenomenal. There are twelve or thirteen different venues - everything from the ice skating arenas, to bob sledding, cross country skiing, all those different events are at different places. Some of them might be thirty or forty mountainous miles away from the IBC. In fact, the morning show is going to be airing from a Zen Buddhist temple. That's going to be interesting; we have to install voice and data networking there. All of these venues and the hotels being used for CBS personnel, clients and affiliates are also going to have dedicated communications.

"Then, of course, when the games are over, we have to disassemble everything and ship it back where it came from. It's really quite incredible. I think it shows Westinghouse Communications' ability to handle mission-critical projects under less-than-ideal circumstances.

"The one thing CBS and Westinghouse Communications can't control is the weather. Mercifully, that's not part of my job."



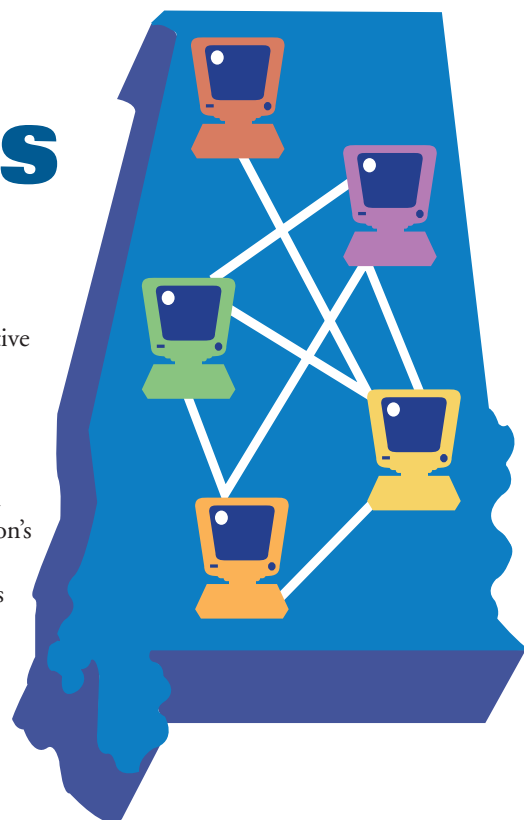
## Westinghouse Communications Wires Southeast Alabama Schools

**W**estinghouse Communications has been selected as the primary equipment vendor for the Southeast Alabama Network, an educational and distance learning network for more than 100 schools, 50,000 students and 3,000 teachers in seven Alabama counties. The network will provide universal access to telecommunications services, including the Internet.

All teachers in the rural region with a computer and modem will be able to access the network by dialing a local number. For those without a computer and modem, access will be made available at many public locations, including 23 regional public libraries. In addition, a continuous and extensive network training program will be

offered to educators and citizens in the participating counties.

According to Mr. Fred Dykes, Executive Director of the Southeast Alabama Regional Planning and Development Commission, "The Southeast Alabama Network is a great example of how economic developers and educators can combine their efforts to improve a region's workforce." Mr Dykes went on to say that Westinghouse Communications was selected because of its expertise in installing and managing full-service telecommunications networks and its excellent reputation for quality service and quick response time.



# Technology with the Westinghouse Seal of Approval... International Services and Operations

*Westinghouse Communications' dedication to ensuring that only proven technology reaches our customers is the reason we developed the "Westinghouse Seal of Approval" program. For a technology to earn the "Westinghouse Seal of Approval," it must undergo rigorous bench and field testing.*

**I**n this issue of *resource*, we're highlighting the international products and services available to customers through Westinghouse Communications.

A key advantage Westinghouse Communications offers to its customers who do business internationally is the ability to provide access through a single point of contact. The Westinghouse "One Call, to One Person, One Time, philosophy" holds true for global communications services, just as it does with domestic services.

Similarly, many of the products and services available domestically are also available on an international basis, including Frame Relay, voice services, LAN Dial Remote Access (LDRA), private lines, and audio and videoconferencing.

## Frame Relay

Frame Relay provides economical and reliable high-speed connectivity among multiple sites for customers with bursty traffic requirements, such as those common to LAN/WAN environments. The service uses the frame relay protocol, an access protocol designed for efficient transport of data with minimal network delay. The resulting services have many of the statistical multiplexing characteristics of X.25-based service, with network performance usually associated with private lines.

With our domestic Nortel Magellan Passport data network and international Frame Relay capabilities, Westinghouse Communications is in the forefront of this hot technology. Our international product is an extension of our domestic product. We offer not only Frame Relay - the port and the PVC part of the Frame Relay service - but also, as a full-service provider, the installation and management of the routers, network monitoring and full reporting services.

## Global Remote Access

Global Remote Access is a managed service that provides access to a company's corporate LAN via the Westinghouse Frame Relay Network. With Global Remote Access, mobile users have the same access to information and resources as local users, with none of the limitations of simple remote control products. Global Remote Access gives users flexible choices for meeting the data communications needs of each global location, with the ability to add other remote access services as needs evolve.

Westinghouse Communications also provides a full range of traditional and advanced data and telecommunications services on a global basis. These include:

- X.25
- Private Lines
- Voice Services
- Audio and Videoconferencing

Additional transport support services are continually being added to the global mix to meet our customers' needs.

## A Single Point of Contact

While our international partners assist in providing global services to our customers, the single point of contact for all products and services remains at Westinghouse Communications. All billing is handled through Westinghouse, and a single call to us allows customers to access the total range of communications services and products worldwide.

For more information on global communications services, please contact Westinghouse Communications at 1-800-447-2111.

## Westinghouse Communications Announces Entry into Local Service Area

**A**s part of our strategy to provide total communications solutions, Westinghouse Communications has begun offering local telephone service to our customers.

"Our goal has always been to provide our customers with a ...One Call, to One Person, One Time" communications solution," said Bob Struble, President, Westinghouse Communications. "By that I mean that our customers can use us as a total solutions resource for the entire world of telecommunications that they can access with a single phone call. Our entry into the local service arena is another major step in that process."

As is our policy with new technology and services, Westinghouse Communications tested our entry into the local service arena first by using it for our own local telecommunications and by making it available to our employees.

*One Call...to One Person...One Time*

Westinghouse will offer local service from all sales locations, operating initially in an agent capacity. To that end, strategic alliances have been created with leading providers of local exchange services.

"We have chosen our partners in this effort carefully, primarily because they share our commitment to total customer satisfaction," Struble said. "We are committed to doing whatever it takes to make our presence in the local service market a success, both for our customers and our company."

For more information, please call 1-800-447-2111.



# A Few Words from...

## Leon Edelsack, Vice President, Sales



**L**ike most people in sales, I thrive on a good challenge. To me, problems are opportunities. Take international communications, for example. Believe me, that's an area where there are lots of opportunities.

At Westinghouse Communications, we pride ourselves on offering a "Single Call" approach to communications solutions. One call, to one person, one time. That's one of the things that sets us apart from our competition, and one of the benefits our customers have come to rely on. After all, the reason they work with us is so that they can concentrate on their core business, rather than taking the time to learn ours. But when you talk about international communications, the challenges involved in delivering that level of service are vast.

Take infrastructure. In many places, there isn't any. Fortunately for us, and our customers, we've had some experience in dealing with that situation, primarily through our special projects work for Westinghouse Electric. Westinghouse is in the business of building infrastructure - nuclear power plants, electric utilities, etc. So where do they go to find opportunities? Where there is no infrastructure. To China. And the Czech Republic. So we have highly-skilled and educated Westinghouse engineers overseas, all expecting the same level of communications service we deliver here in the United States, a country with the finest communications infrastructure in the world. As a result, we set up very specialized satellite communications and wireless systems to allow them to accomplish their tasks. Now those sorts of systems are available to other users in similar situations.

Similarly, our international customers want their global communications to be transparent. An international law firm wants its partners concentrating on the law, not how the network functions, whether they are in the Paris office or sitting in Los

Angeles. For them, it's not a case of a domestic network or an international network, it's an enterprise network. Voice, data, Internet - one source to deliver it all.

That's why we've developed strategic partnerships—to help us deliver that level of service on an international basis. For example, our primary wide area data partner is Infonet, which has been in operation for over 30 years, providing advanced communications service and support in over 50 locations worldwide. And it's through these partnerships that Westinghouse offers Control Centers in Pittsburgh, Los Angeles, Brussels and Tokyo providing coverage 24 hours a day, 365 days a year. A single, toll-free call connects customers to the appropriate Center.

Whether the challenge and opportunities are domestic or global, our key to success - from a sales perspective - has been the quality of the people we've been able to attract. And one of the advantages we have there is that we really free up our sales reps to handle all the needs of an account.

Many of our competitors narrowly focus their sales people. Some focus on switched services, others on data. So to provide what I call a true business solution, they're constantly handing customers off from one team to another. The sales people get frustrated, and the customer gets confused.

At Westinghouse Communications, in contrast, our sales people carry a large suitcase of products and can, in effect, tell their prospective customers, "In the telecommunications arena, there isn't a problem I can't solve." It's all part of our "One Call, to One Person, One Time" philosophy. And a big reason why we've doubled our sales force in the last 18 months.

We've also made a corresponding investment in sales support. New technologies often require us to have people closer to our customers. So rather than dispatching sales engineers from a centralized location all the

time, we base some of them in our branch locations. It allows them - along with the district manager and sales reps - to build an ongoing relationship with a customer, to anticipate problem areas and provide solutions, often before the customer even knew they had a problem. So the customer has the sense that they have a personal telecommunications manager. Again, I keep coming back to the "One Call" strategy. It plays out throughout the Westinghouse Communications organization.

A while ago I went on a call with one of our sales reps. The customer was evaluating proposals from a number of vendors, including us. During our presentation, I got up and drew a tiny dot on the wall. "What's that?" I asked. "A dot on our wall," someone said. After the laughter died down, I said, "No, that's what you are to our competition. A speck. To Westinghouse Communications, you're a four inch square on the wall, something you can see without a magnifying glass." They got the point. To us, they were an important customer, someone worthy of pulling out all the stops to work with, to grow with. And, I'm happy to say, they agreed and became our customer and as they've grown, Westinghouse Communications has grown right along with them.

Attention to detail. Personal service. A willingness to work outside of the "one-size-fits-all" mentality. Domestic, international, global - at the core, it's all the same. It's about coming up with solutions that work for the customer, when and where they need them. And I like to think that's what we at Westinghouse Communications do best.

## Upcoming Events



Westinghouse Communications  
1998 Executive Customer Forum  
Westin Mission Hills in Rancho Mirage, California  
April 29th - May 1st

### **The Myths and Magic of Telecommunications**

From the technical experts who create the magic, we offer you a series of presentations, technical

discussions and demos on:

- ✓ the next generation of remote access
- ✓ the fact and fiction of Internet services
- ✓ voice and data consolidation
- ✓ voice in the new millennium
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For more information, write:

Eileen Zebroski, Editor  
Westinghouse Communications  
902 Brinton Rd., Pittsburgh, PA 15221

(412) 244-6558 WIN 855-6558 Fax (412) 244-6666 email: zebroski.e.c@wccmail.com

# On the Front Lines with... Laurie Ann Sims, Manager, Data Products

**F**ew will dispute that the Internet is one of the fastest growing business tools in history. In 1985, there were approximately 1,000 hosts on the Internet. By 1990, the number had tripled to 3,000. By 1995, there were more than 4.8 million hosts and an estimated 30 to 40 million users. And that number continues to grow exponentially.

However, while many companies are interested in extending their communications strategies to include the Internet - for sales (so-called "E-Commerce"), customer information and support services, intranet operations (communications within a company) - few have the expertise to handle the transition themselves. Laurie Ann Sims, Manager, Data Products, is one of Westinghouse Communications point people in the effort to help customers achieve their Internet goals. We spoke with her recently to get her insights into this burgeoning market.

"Today's business environment is becoming increasingly competitive and many of our customers are coming to find that their success, and even survival, is dependent on their ability to compete in a changing world," said Sims. "Customers are more and more demanding of the companies they do business with. They want the information now. They want it right and they want it up-to-date. Technology is driving markets and organizations to change, the advances in data management and information distributions focus business to pinpoint niche markets and with individual messages.

"These companies are seeing technology change their corporate structure with rise of virtual offices - telecommuting and telecomputing employees and collaborative product development between multiple locations. And the Internet, as the means for revolutionizing communications and information transfer, both within and between businesses, can help our customers effectively address these competitive issues. It enhances their ability to communicate and transfer information to their customers and their suppliers and their partners."

Westinghouse Communications overall product strategy is to provide full-featured integrated solutions to support our customers' telecommunications requirements. Today, we offer Internet access, bundled with voice and data services, and Web hosting services.

"Westinghouse can provide these services over a shared access circuit, allowing customers to share access costs and realize significant savings" Sims said. "We also integrate Internet billing with our voice and data services billing, so it simplifies record-keeping for our customers."

The typical Westinghouse Communications Internet access connects from the customer's internal network or LAN to our Internet gateway router. This one hop architecture - from the customer's Internet access router to Westinghouse's Internet backbone ring - provides improved performance over architectures requiring a hierarchy of routers.

According to Sims, the most efficient way to accomplish Westinghouse's goal of solving its customers critical business Internet requirements was to create a partnership with a leading Internet-oriented company. "We partnered with DIGEX, because we found them to be a superior national, Tier-1 Internet Carrier with the same dedication to customer support and quality service as Westinghouse Communications."

This strategic pairing offers Westinghouse Communications customers a number of advantages, including: a fault-tolerant, robust, national Internet backbone network supported by Tier-1 Peering Agreements

offers a wide range of available bandwidth from 56 kb to T-3.

"Whatever access method our customers choose, we recommend a firewall to help safeguard their corporate assets," Sims said. "We support three turnkey firewall systems and work with our customers to select and configure the system that's right for them."

Either access method supports a range of desirable features, including:

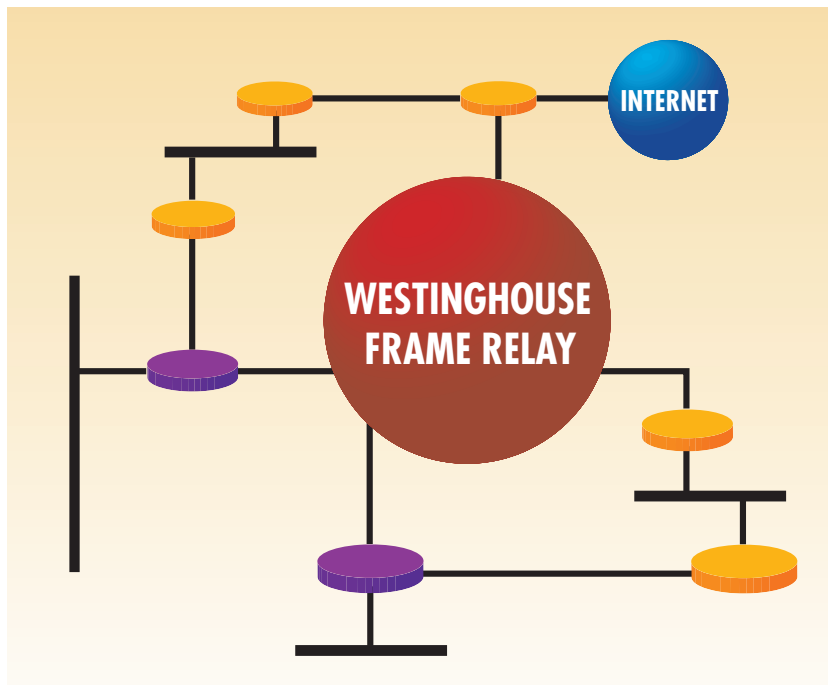
- Public and private IP addressing - private addresses provide more security by not advertising private resources.
- Internet Domain registration - our installation includes engineering support to process one initial domain name registration or update.
- Primary and Secondary Domain Name Service
- Management and maintenance of the Internet service up to the firewall, including proactive monitoring of the router and access circuit.
- Optional support of New Group feeds to customers' News Group reader.

"We also offer both shared and dedicated Web server hosting solutions," Sims said. "One key advantage to our customers is that we provide off-site hosting, maintaining the Web servers on our network, not on the customers'. The benefits to this approach include the ability to choose - and pay for - exactly the bandwidth required. In addition, security is enhanced, because the customer's public Web information is outside of their firewall. And, of course, reliability is better, because our network operations professionals monitor and maintain the servers 24 hours a day, 7 days a week. And finally, the service is more affordable, because our customers can focus their resources on their core business, rather than dedicating staff to maintaining the server."

For Laurie Ann Sims, it all comes back to helping customers achieve their Internet goals. "The Internet is opening a new playing field. The Fortune

500 might already be there, but anyone with the creativity and the information and the content can create a virtual presence and be in the game. The very nature of the Internet allows those smaller companies to be very competitive. In many ways, the days of bricks and mortar defining a company are on their way out. The Internet, and its associated technologies are expanding informational resources by building technological infrastructures that are leveling the field."

with other Tier-1 Internet service providers; leading technology with a responsive, customer-driven attitude; and the world's largest dedicated server Web Site management facilities. Westinghouse Communications has two recommended access offerings: Our standard Frame Relay access, which supports 90% of our customers with bandwidth requirements up to T-1 speeds; and point-to-point access for customers with extremely high bandwidth requirements (T-1 and greater). In all, Westinghouse Communications



# resource Q&A Global Enterprises

Many of the articles in this issue of *resource* have touched on the global nature of business today. To meet the needs of customers whose operations are international, or who are expanding overseas, Westinghouse Communications is focusing considerable resources on its global services. In fact, a recent organizational change has placed responsibility for product internationalization under each product manager, ensuring that every applicable product will be available to every Westinghouse Communications customer, wherever they do business.

Here are a few frequently asked questions regarding Westinghouse Communications and international communications.

**Q** Can Westinghouse Communications provide communications services worldwide?

**A** Most Definitely. Through our own resources, and those of our partners, we can provide both voice and data services almost everywhere business is routinely conducted.

**Q** What kinds of services can I expect overseas?

**A** As always, our goal is to provide total communications services to our customers, wherever they are.

**Q** How do I access Westinghouse Communications' international services?

**A** The same way you access services in the U.S. A single phone call is all it takes. We will work with you to determine your needs, then install the appropriate infrastructure.

**Q** Our overseas offices don't have a dedicated communications staff. How will we manage the network?

**A** The key advantage to working with Westinghouse Communications globally is our ability to manage your network for you. We understand that few enterprises have the staff to handle a worldwide network. So we become your de facto communications staff, managing all aspects of your network.

**Q** If we have a problem overseas, how is it handled?

**A** Through Control Centers in Pittsburgh, Los Angeles, Brussels and Tokyo coverage is provided 24 hours a day, 365 days a year. A single toll-free call will connect you to the appropriate Center. In most cases, you will also have access to support offices with native language speakers and service personnel to perform on-site maintenance and repair, as necessary.

**Q** How are the services delivered?

**A** Westinghouse has established partnerships with other leading communications providers around the world who share our dedication and commitment to superior customer service. Through these partnerships we provide Frame Relay, remote LAN Dial Services, and other transport support services in 52 countries. With over 30 years of experience and a strong mix of local field engineering, support and help-desk services, we are uniquely qualified to serve the needs of our customers with overseas communications requirements.

**Q** Will I have to deal with each of these providers individually?

**A** All billing is handled through Westinghouse Communications, and a single call to us allows you to access the total range of communications services and products worldwide. The advantage of working with Westinghouse Communications is that you never have to dedicate your own internal resources to establishing and maintaining your network.

**Q** How can I find out more about Westinghouse Communications' global products and services?

**A** Call Westinghouse Communications at 1-800-447-2111 for more information.



**Westinghouse Communications**

902 Brinton Road, Pittsburgh, PA 15221