

TOLL-FREE PIN SERVICE

DEDICATION, INNOVATION,
SUPPORT.



Call Completion –
the Key to Greater
Profits.

Frontier's **unique**
Toll-Free PIN Service
**increases call
completion**
opportunities. Unlike
traditional toll-free ser-
vices, every Toll-Free
PIN Service number is
associated with a virtually
unlimited number of
terminating destinations.
Your customers can
assign multiple PINs to
their home, pager, branch
offices, etc., ensuring a
higher percentage of
completed calls —
which translates into
more revenue for you.

frontier
COMMUNICATIONSSM

TOLL-FREE PIN SERVICE

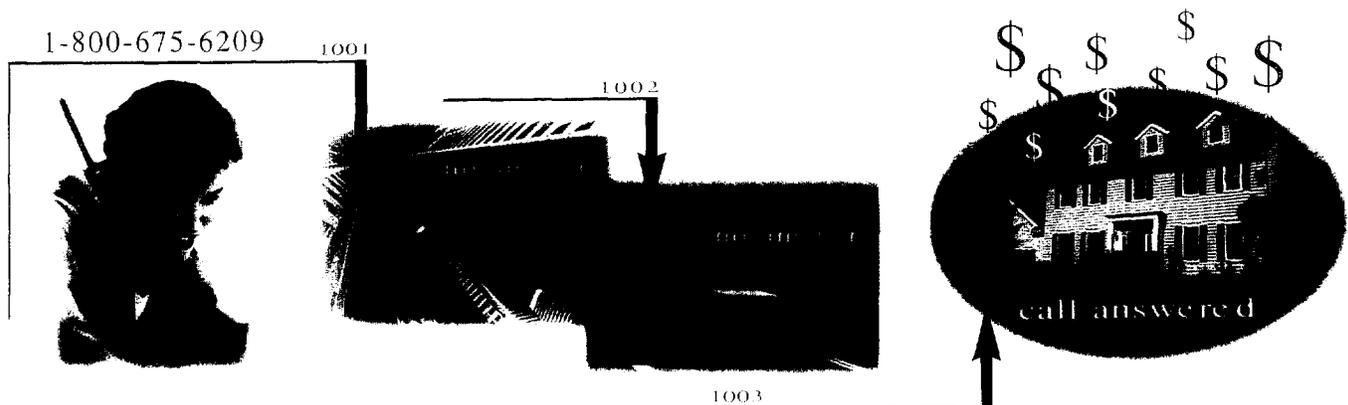
Call Completion – the Key to Greater Profits.

Reseller Benefits:

- Increase revenue opportunities with fewer zero-billers
- Minimize attrition with industry-unique multiple PIN assignments
- Value-added PIN service gives you a competitive advantage – toll-free number and PINs are non-portable
- Lower operating expenses and increase customer satisfaction by minimizing credit requests for misdialed calls
- Offer your customers a more robust product compared to traditional toll-free services

Additional Features and Benefits:

- Start generating revenue quickly with fast account set up
- Proprietary PC-based order entry system
- Real-time PIN activation and PIN maintenance
- Multiple PIN capability improves the percentage of call completions
- Call reorigination feature increases usage
- Next generation SONET network ensures unlimited growth potential



For more information on
Frontier Carrier Services
Call 1-800-675-6209

frontier
COMMUNICATIONSSM



574-556-498

FRONTIER DATA DISPLAYSM

DEDICATION, INNOVATION,
SUPPORT.



Save Time and
Money with
Online Access
to Traffic Reports.

Frontier Data Display offers you a **powerful** traffic analysis tool that lets you identify trends and calling patterns with 20 easy-to-read summary reports. Now you can **save money** and allocate resources more effectively with easy access to **online traffic information**.

frontier
COMMUNICATIONSSM

FRONTIER DATA DISPLAYSM

Easy Online Access to Critical Information.

- User-friendly interface makes online reporting fast and simple
- Get the exact information you need with over 20 easy-to-read traffic summary reports
- Display, export, and print reports at your convenience
- Accelerate decision making with faster availability and accurate information
- Customized software – your choice of CD-ROM or disk



Improve and Accelerate Decision Making

- Identify calling patterns with flexible trending tools
- Break out reports by state, country, LATA, duration, time of day, or day of week
- Allocate resources more efficiently with usage trend analysis
- Optimize traffic performance

Save Reporting Time and Effort

- Increase employee productivity and performance with simple, easy-to-use tools that guide effective decision making
- Reduce the number of requests for reports with online availability
- Share timely information – eliminate reporting delays
- Save money with fast electronic distribution channels – decrease information research and report distribution time

Reports Available

- Daily Summary Report – Inbound
- Daily Summary Report – Outbound
- Dial Plan Summary
- International Calling Summary
- Originating LATA Summary – 1+
- Originating LATA Summary – Toll-Free
- Originating LATA Summary – Toll-Free PIN
- Originating LATA Summary – Calling Card
- Originating LATA Summary (Total)
- Originating State Summary
- Originating State/Terminating LATA Summary
- Service Type Summary
- Terminating LATA Summary – 1+
- Terminating LATA Summary – Toll-Free
- Terminating LATA Summary – Toll-Free Pin
- Terminating LATA Summary – Calling Card
- Terminating LATA Summary (Total)
- Terminating LATA/Time of Day Summary
- Terminating State Summary
- Time of Day Summary by Service Type
- Traffic by Service Type Summary
- Traffic/Time of Day Summary

For more information on
Frontier Carrier Services
Call 1-800-675-6209

frontier
COMMUNICATIONSSM

NEXT GENERATION SONET NETWORK

DEDICATION, INNOVATION,
SUPPORT.

Next Generation
SONET Network
Changes the Rules.

Frontier's next-generation broadband SONET network will encompass more than 13,000 route fiber miles and deliver unparalleled **speed**, performance, and **reliability**, combined with virtually **unlimited capacity**. Our SONET (Synchronous Optical Network) architecture provides optimal protection from multiple failures and **self heals** in milliseconds.

frontier
COMMUNICATIONSSM

EXT GENERATION SONET NETWORK

Competitive Advantages:

- Utilizes SONET technology combined with a 7-ring design that will self-heal in less than 50 milliseconds
- Abundant supply of future network capacity provided at a competitive price
- The full network capacity of 12 trillion minutes per month uses the most advanced technology
- SONET architecture guarantees virtually error-free network performance
- Able to deliver DS-1, DS-3, OC-3, OC-12, and OC-48 capacity – contiguous nationwide SONET network operates without the limitations of older legacy networks

Capabilities:

- Dramatically reduces network provisioning times
- SONET transport system translates into efficient operations, lower costs, and increased flexibility
- Optical Wave Division Multiplexing (WDM) deploys multiple channels of SONET OC-48 signals over a single fiber
- Incorporates the most technologically advanced fiber, providing high-speed and high-capacity transmission capabilities for voice and broadband data applications
- Convenient access from over 250 POPs nationwide
- International connectivity through 2 gateways

• 24-hour, seven-day-a-week service

• Proactive maintenance through SONET performance

• Monitoring and diagnostic capabilities

• Connectivity with local SONET networks

• Enhanced Network Operations Center (NOC) control through real time network management system

• 24-hour, seven-day-a-week surveillance of all network equipment



- Planned Network
- Future Expansion
- Frontier Switch
- Terminal Sites

For more information on
Frontier Carrier Services
Call 1-800-675-6209

frontier
COMMUNICATIONSSM

INFORMATION MANAGEMENT SYSTEMS

DEDICATION, INNOVATION,
SUPPORT.



Take Complete
Control of Your
Business with
RDA/EE.

Frontier's unique
PC-based online
information management
systems give you **real
time access** to your
customers' critical account
information. We
electronically link
you to service order
management and account
information – 24 hours
a day, 7 days a week.
And we provide compli-
mentary comprehensive
systems training for
your employees to ensure
optimal utilization of
these dynamic tools.

frontier
COMMUNICATIONSSM

INFORMATION MANAGEMENT SYSTEMS

Take Complete Control of Your Business with RDA/EE.

Remote Data Access (RDA): A Remarkable Tool for Real-Time Access

This proprietary system puts you in control with real-time access to Frontier's service order management and switching systems. You'll have 24-hour, 7-day-a-week access to the following:

ANI Maintenance

- Add ANIs to existing accounts
- Add/delete account codes
- Check ANI download switch status
- Check the last usage date
- Confirm the date of a 700 PIC verification test for a switched ANI
- Change ANI status
- Change BTNs
- Block international calls at the ANI level
- Inquire about switched 1+ serviceable areas

Toll-Free Number Maintenance

Toll-Free and PIN Maintenance:

- Add toll-free numbers and PINs to existing accounts
- Change "ring to" translation numbers
- Add/cancel toll-free directory assistance
- Check the last usage date
- Change toll-free number and PIN status
- Add/cancel NPA blocking
- Check toll-free download switch status
- Make toll-free number portability inquiries

Toll-Free Inquiry Reserve

- Reserve toll-free numbers from available pool

Customer Status

- Check whether blocked, disconnected, or active
- Terminate/reactivate accounts

Trouble Ticket Management

- Initiate trouble tickets
- Check trouble ticket status and history

Our advanced PC-based online system provides daily batch processing of service order and billing activity at your convenience, 24 hours a day, 7 days a week.

Process new orders and maintenance requests for 1+, Switched Toll-Free, Calling Card, and Toll-Free PIN.

- Receive daily Call Detail Records (CDRs), giving you the flexibility to establish multiple billing cycles to your customer base for increased cash flow

- Receive daily response files:

- Eliminate "black holes" by knowing the status of every order submitted

- Manage your customer base and integrate the EE system into your own billing platform

Receive status updates on toll-free services

- Receive system upgrades so, as your customer base grows, you can choose higher throughput options

For more information on
Frontier Carrier Services
Call 1-800-675-6209

frontier
COMMUNICATIONSSM

CARRIER 1+ TERMINATING SERVICES

DEDICATION, INNOVATION,
SUPPORT.



Expand Your Reach
with Frontier's
Nationwide
SONET Network.

Frontier Carrier 1+
Terminating Service
provides **reliable,**
competitively priced
termination capabilities
domestically and to
over 240 international
destinations. You benefit
from unsurpassed SONET
network **performance,**
expanded business
opportunities, and
premier account
management.

frontier
COMMUNICATIONSSM

CARRIER 1 + TERMINATING SERVICES

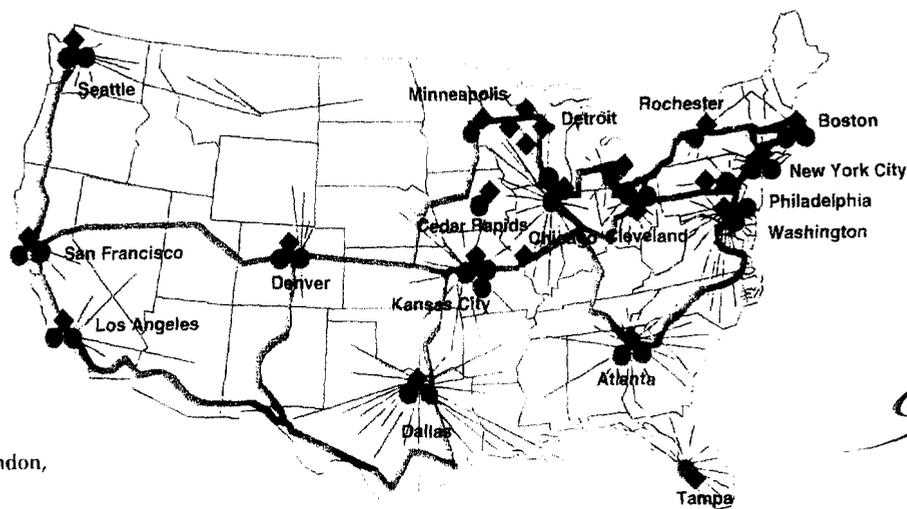
Expand Your Reach with Frontier's Nationwide SONET Network.

Nationwide Product Portfolio:

- Full domestic and international termination capabilities
- LATA-specific pricing structures available
- Termination to over 240 international destinations
- Nationwide inbound toll-free service

- Competitive interstate and international routing
- Optimal network performance with Frontier's SONET network
- Dedicated account management team
- City-specific international termination capabilities

With Frontier providing the gateway, you can meet us at any of the 200+ points of presence on the Frontier network.



Carrier Hub in London, England



- DMS-100E
- DMS-250
- DMS-500
- DSC 600E/600

- ◆ Frame Relay Complete
- SONET Network 1998



For more information on
Frontier Carrier Services
Call 1-800-675-6209

frontier
COMMUNICATIONSSM

Carrier Services Group

DEDICATION INNOVATION SUPPORT

All Networks Are Not Created Equal...

Network Element	Frontier's SONET Network OC-48	Legacy Networks	Benefits of Frontier's Network
Fiber	Non-Zero Dispersion Shifted Fiber (NZDS)	Single mode fiber	NZDS Fiber is capable of Wave Division Multiplexing (WDM) providing greater capacity over the same number of fibers, while single mode fiber is not
Right of Way	Majority built along railroads	Highways	Highly secure environment, hence greater survivability
Installation & Protection	Buried greater than 4' and encased in conduit	Directly buried (less than 4')	Fibers are buried deeper and within a conduit for additional protection

Network Element	Frontier's SONET Network OC-48	Other Networks OC-192	Frontier Customer Benefit
Network Survivability	4 fiber bi-directional line-switched ring architecture providing one-to-one protection	Back to back linear configuration	Reliability A fully redundant network providing one-to-one protection guarantees continuous traffic throughout—maximizing revenue potential
Service Quality	The combination of OC-48 and NZDS fiber allow longer span deployment greatly reducing possible points of failure	Medium to long haul deployment (<100Km) requires more equipment in the network	Service Quality Enhanced value as a service provider by utilizing the highest quality network with the fewest points for potential failure—virtually 100% network reliability
Interfaces	Flexibility to support both asynchronous (DS-3/STS-1) & SONET (OC-N) interfaces	Additional equipment required to interface at sub-OCN levels	Flexible Solutions Broad, customized solutions with the ability to provision quickly and easily



Carrier Services Group
Frontier Corporation
Frontier Center
180 South Clinton Ave
Rochester, New York 14643
1-800-675-6209

frontier®

FRONTIER NATIONAL NETWORK

INTEGRATED TELECOMMUNICATIONS SOLUTIONS



MAXIMIZING YOUR EFFICIENCY TODAY.
PREPARING FOR THE INNOVATIONS
OF TOMORROW.

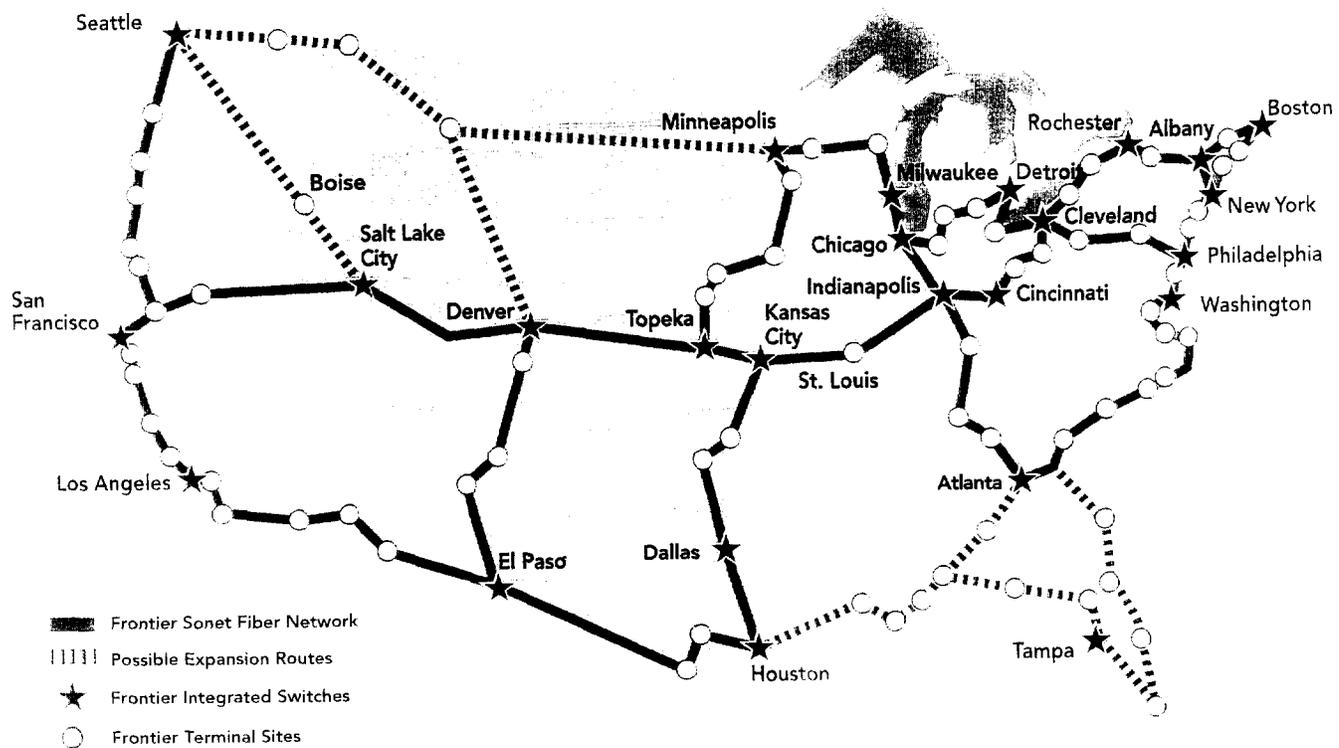
frontier[®]
Talk To One CompanySM

THE FRONTIER NATIONAL NETWORK

The Single Source For All Your Voice, Data, and Enhanced Telecommunication Services Needs

The Backbone

Upon completion, Frontier's SONET network will offer unparalleled speed, reliability and efficiency to customers nationwide.



SONET Advantage.

SONET (synchronous optical network) is the wave of the future, and we're building it today. Soon, our national SONET network will be speeding voice, data, and video throughout the country and around the world.

- Ultra-high speed
- Completely self-healing
- 100% fiber optic
- 13,000 linear miles, 100 cities connected
- Abundant capacity

SONET
REVOLOTEC

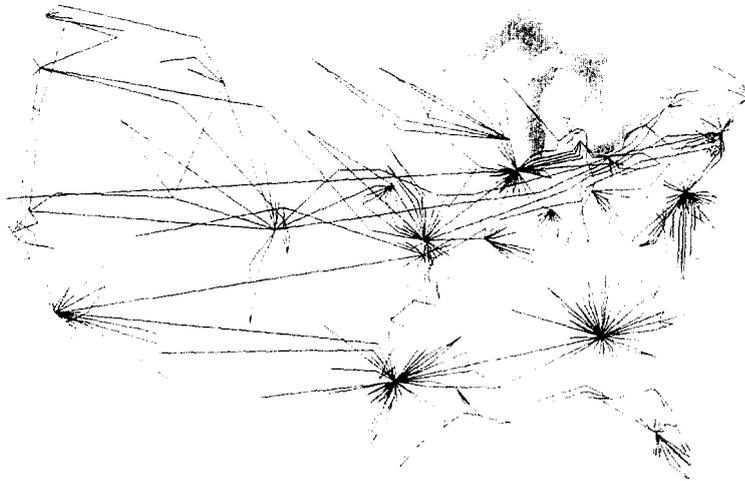
THE FRONTIER NETWORK

You're Assured Of Frontier Reliability

Frontier's Next Generation network technology spans the country, providing a solid foundation for our wide range of communications services—voice, data, and enhanced—and offering our customers a solid platform for future growth. The Frontier network today provides clear, reliable service to more than two million customers across the nation

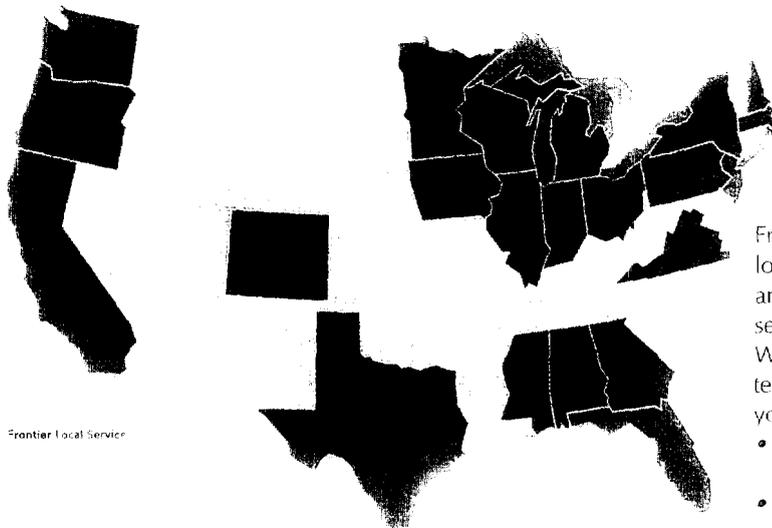
Voice Services

Frontier National Voice Network



Frontier Local Service Networks

Existing and Planned for 1998

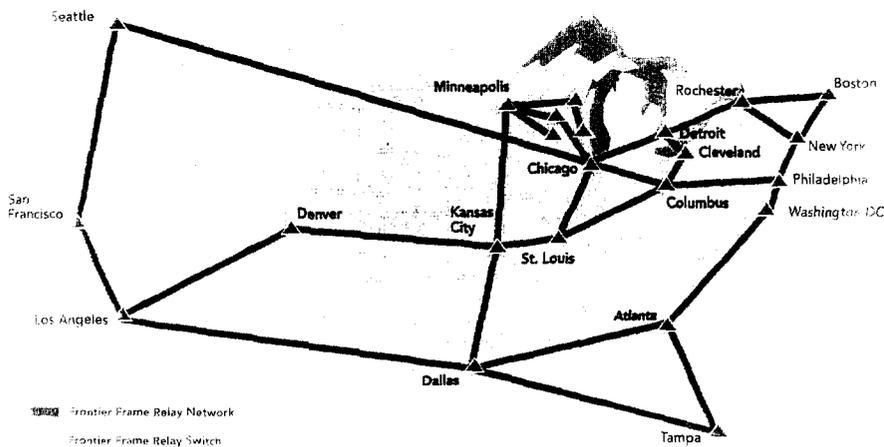


Frontier Local Service

- Frontier has been providing superior local service for nearly a century and long distance and wireless services for more than a decade. We offer a variety of advanced technologies designed to keep your efficiency high and costs low
- *Integrated local, long distance and wireless services*
 - *Area-wide Centrex*
 - *Calling cards*
 - *Voice mail*
 - *911*
 - *Operator services*
 - *White and Yellow-page directories*

Data Services

Frontier Frame Relay Network



The need for fast, efficient, and economical data services has never been greater. And in the future, data transmission will become increasingly important for any business with multiple locations.

Frontier data services are specially designed to provide your business with maximum efficiency and reliability.

Frontier is ready to meet your needs today with:

- Analog and digital private lines
- Frame Relay
- Internet

Others will further streamline your services in the near future.

- ISDN—voice, data video, completely integrated

Enhanced Services

Frontier offers a wide array of enhanced services that offer business customers additional efficiency and economy. These services put advanced technology to work for you, streamlining the way you do business and helping you achieve economies you never thought possible.



frontier[®]
Talk To One CompanySM

Simplicity is paramount. At Frontier, we understand that communications is a means to an end—your business growth and success—not an end in itself. That's why we're investing in Next Generation network technology—to keep things simple and reliable for you. Frontier's premier voice, data, and enhanced-services networks of today will soon be integrated into a powerful, completely integrated SONET-based network, guaranteeing you unprecedented efficiency and reliability.

FRONTIER NATIONAL NETWORK

Ready to serve your needs today and in the future, Frontier's national network offers streamlined delivery of the communications services that will help your business thrive. Contact us today for more information.



- Dedicated and Switched Long Distance Services
- Specialized Toll-free Services
- International Termination
- Calling Cards
- Voice Mail
- Wireless Services*
- Local Services†
- Area-wide Centers
- VPN/Voice†



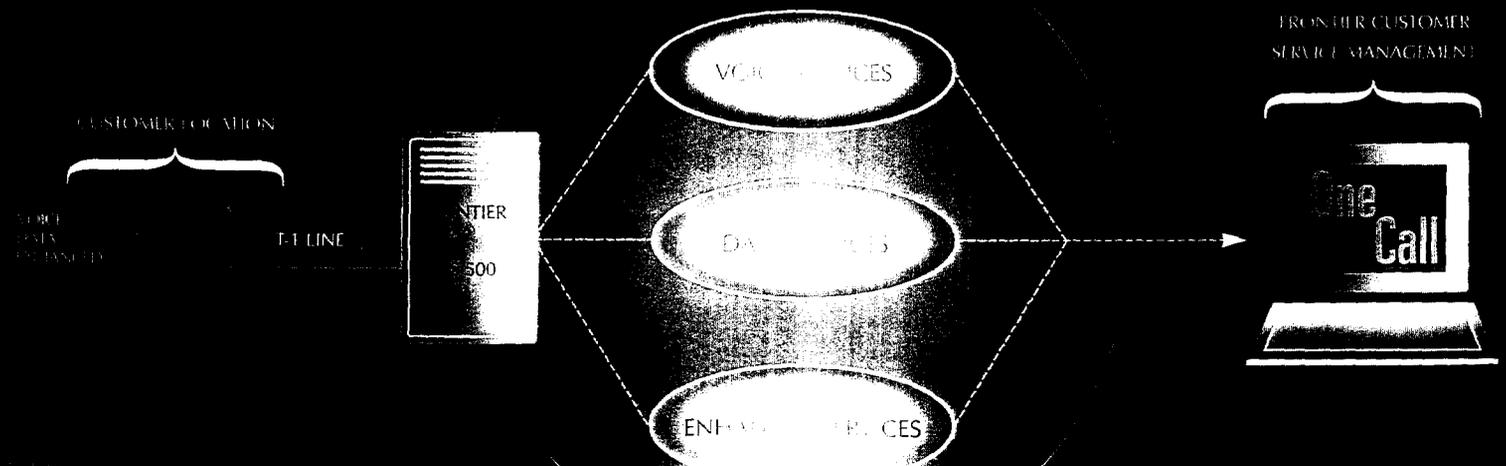
- Analog/Digital Private Lines
- Frame Relay*
- Internet Services
- ISDN*



- Audio, Document and Video Teleconferencing
- Broadcast Fax
- FaxMail
- Advanced Toll-free Routing
- Inbound Voice and response Unit (IVRU)
- Custom Billing and Reporting Services

*Restricted by geographic availability
 **Planned for future release

Sonet Backbone





“Now do you understand the effect of wholesaler nonsupport? And why we should leave the Inadequate Phone Company for that Williams network?”

Who was that?

We placed fiber in decommissioned pipeline, inventing the most advanced — and fourth largest — nationwide fiber-optic network virtually overnight.

We introduced frame relay to the commercial marketplace first, as well as broadcast-quality transmission for national television demands.

We made monitoring multiple networks seamless, and enterprise-wide solutions a reality.

And why are those guys the best choice for your business again?

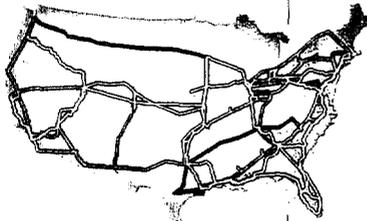
That's right, it was that Williams company. And to the chagrin of all those telecom fossils with face-lifts and hastily merged networks, that Williams network is back.

Along with those Williams networkers — the ones that made it all possible the first time. We're ready to pull it all together for your business. And push it along thousands of fiber miles already laid, lit and ready to ride. It's all that, and much more. So what do you think of that?

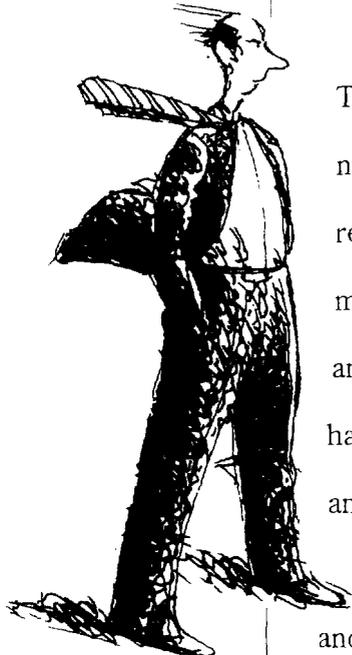




Though Williams Communications touches every corner of the globe, we're based out of our 53-story tower in Tulsa, Oklahoma. So, if you're in the neighborhood, drop by.



Thousands of fiber miles, glowing and growing every day. As opposed to those other networks out there continually selling in the dark.



We're already the fifth largest digital network in the U.S. (and did we mention we're lighting more miles to our thousands of miles of network every day?).

that Williams network.

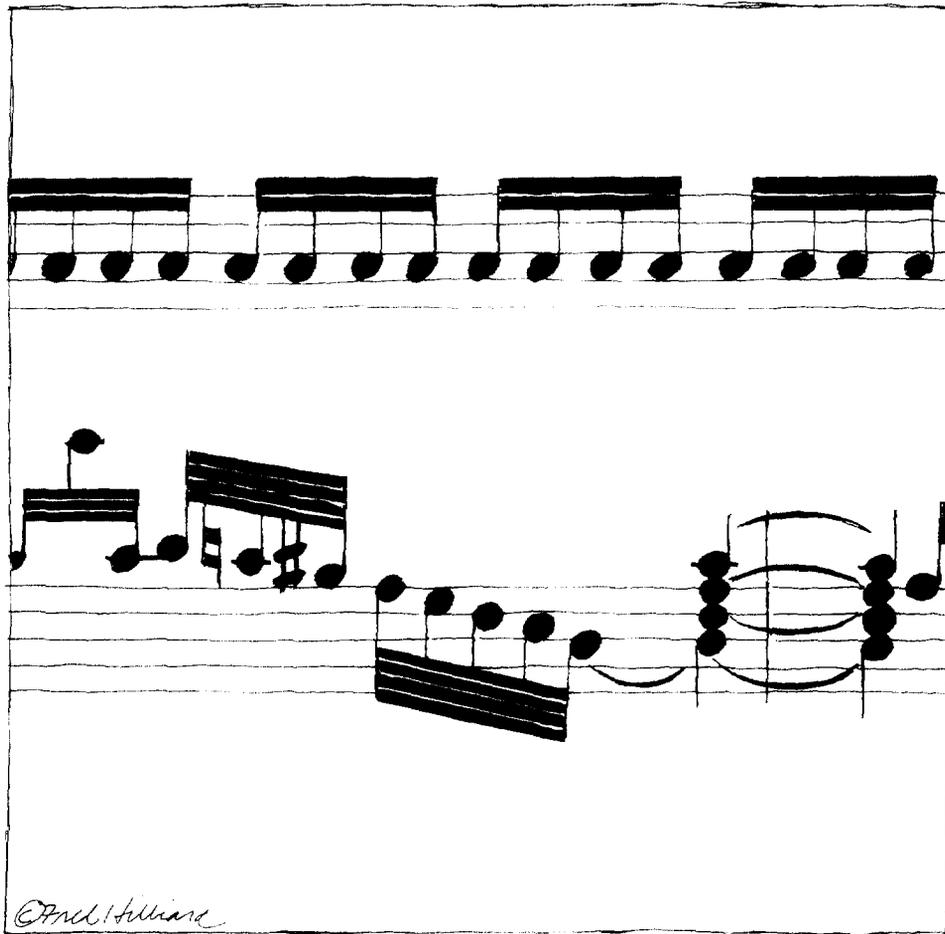
That Williams network also provides more points-of-presence than any other provider, so you're good to go from anywhere. Plus more gas pipeline rights of way, for more security. And our peerless wholesale experience ensures that Williams network will deliver more marketplace muscle and mastery than any other carrier.



The single best characteristic of that Williams network? Easy, those Williams networkers. Those guys authored many current telecom paradigms. Now they're rewriting the book. Case closed. Those Williams networkers are experts at mixing, matching and merging *those Williams networkers.* hardware, fiber

and business strategies for total data, voice and video solutions. Complete integration.

Plus more reliability. More flexibility. More cost-efficiencies. It's a level of service and savvy that's been missing since... well, since that first Williams network.



A musical comparison between the bandwidth most networks promise (top) and the inherently flexible bandwidth Williams delivers (bottom).



Williams is more than
 the boldest and best
 coast-to-coast digital
 network for your
 business. Fiber.
 Hardware. Integration.
 Whatever. And a darn
 easy number for all of it:
 1-800-WILLIAMS.



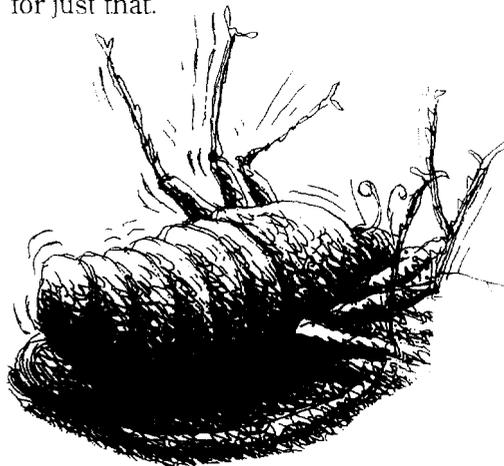
Williams carries more
 news, entertainment, and
 sports television traffic
 than any other network,
 so we know what's
 best for any business
 application. Let us
 show you where
 we can take
 your business.

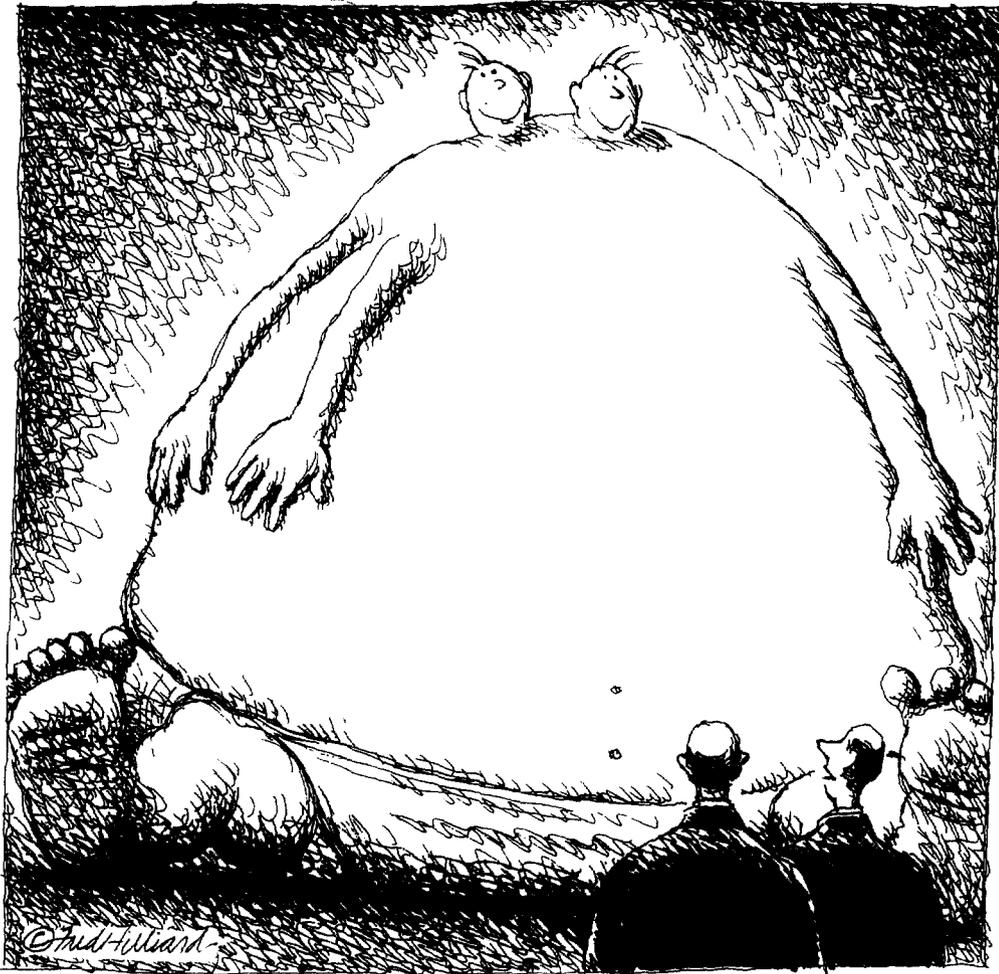


that Williams ingenuity. The network's in place. The

networkers are poised. And the industry's first true one-stop shop is back —
 open for business. Of course it's all the fiber you need, along with complete
 enterprise solutions, advanced applications and network services. End-to-end,
 all points in between. As much as you want, as little as you need.

How's this for a little telecom stream of consciousness... ▀ Williams offers systems
 integration and monitoring, data networking capabilities, the whole shooting match.
 ▀ Video or audioconferencing (quad-split, desktop, room-based services, etc.), plus
 multimedia Internet and emerging packet-based multimedia communications,
 an advanced ATM switching infrastructure, virtually anything for any business
 application. ▀ Williams even leads the way in developing advanced multimedia
 solutions for specific markets and applications. ▀ And, as they say in brochures
 like this, "there's a whole lot more." So call that Williams network
 for just that.





There was a disconcerting lack of focus after his old carrier merged, and Ed's thoughts turned toward that Williams network.

that **Williams** network

Williams

Frame Relay Services

Williams

ATM

Williams

Technology Solutions

Williams



San
Francisco
San Jose



Be sure to join us for the TRA Lite Lunch sponsored by Williams Network, Wednesday, May 13, from 11:30 to 12:30 in the Exhibit Hall.

INSIDE THIS ISSUE

2

**CNMS... The Real Thing
From Williams Network**

3

**You Can Have It Both Ways
Usage-based Billing (or Flat
Rate)**

**Williams Network Expanding
into the Next Century**

4

**It's Funny, It's Sophisticated,
It's Edgy - It's *that Williams
network's Ad Campaign***



One Williams Center

Tulsa, OK 74172

www.willtales.com

1-800-Williams

that *William's* networkSM

TRA Spring Conference

May 1998

It's Good to be Back!

Just in case you missed it, Williams announced its return to the wholesale network business on January 5 of this year. The announcement coincided with the expiration of a non-compete agreement made three years ago, and signals our commitment to once again deliver advanced technologies and the ultimate in customer care to the wholesale marketplace.

Under the WilTel Network Services banner, Williams made its first foray into fiber optics in the mid-1980s, using decommissioned pipelines to house fiber transmission cable. The result was the creation of the fourth-largest fiber-optic network in the United States a network that allowed Williams to become the first company to bring frame relay to the commercial market. The innovation that got Williams into this business in the first place is the same spirit in which we are leading our current network efforts.



Gordon Martin

Built on an ATM platform, Williams Network employs transport systems with Dense Wavelength Division Multiplexing from Nortel, delivering up to 80 gigabits per second on a single-fiber OC-192 system. Williams also utilizes the GX 550 ATM switch from Ascend Communications to meet growing volumes of data traffic. The scalable switch adds top speed and capacity to the Williams backbone network.

All of Williams network customers will benefit from what we consider to be an aggressive, yet manageable, growth plan. Williams will expand to 100 cities and 32,000 miles by the end of 2001.