EXPAND YOUR WIDE AREA NETWORK TO INCLUDE

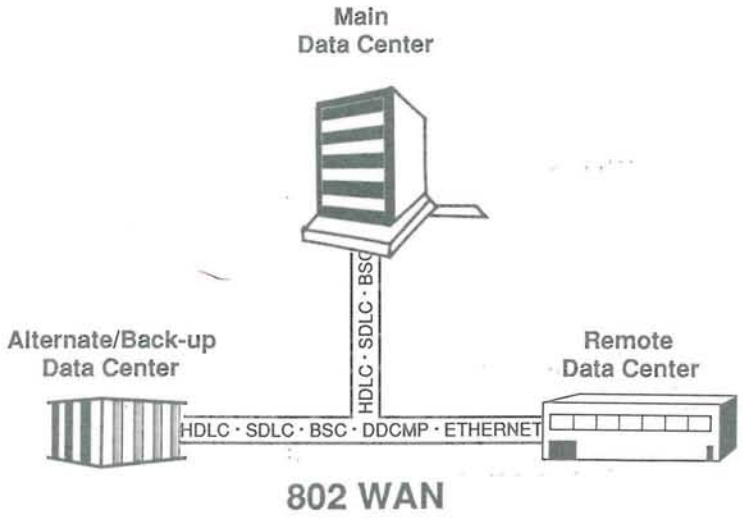
Now link your synchronous devices over Ethernet and your 802 WAN

SDLC, HDLC, BSC, AND DDCMP TRAFFIC—WITH TransLINK!

Vitalink's TransLINK® server extends the benefits of the 802 WAN™ to include your synchronous traffic. The same high-performance backbone that transparently links your LANs can also link your hosts to each other and to remote job entry (RJE) workstations for improved performance, reliability, and manageability.

TransLINK combines with TransLAN® to expand the benefits you're already enjoying...

- Seamless Connection of Multiple LANs—one-LAN connectivity across all your facilities; every resource appears to be on the same LAN
- Automatic Configuration—when you add or move stations or even add new LANs, your TransLAN bridges automatically adapt to the new configuration
- Standards Compliance—over 400 vendors support the 802 standard; your network is vendor-independent



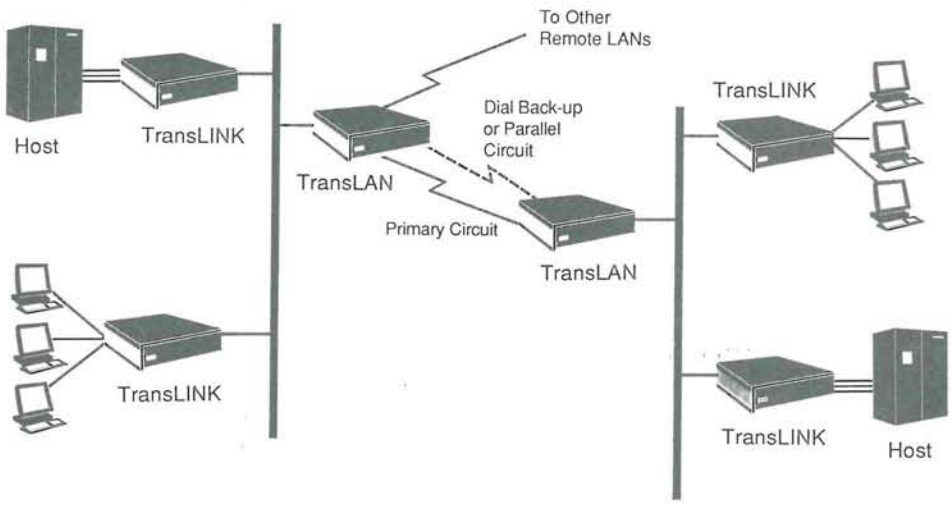
...to include your synchronous devices:

- Improved Performance with More Available Bandwidth—provides virtual circuit connectivity for all your synchronous devices across the high-speed 802 backbone—within one building or across the country
- More Uptime with Automatic Alternate Routing—eases congestion and improves network reliability with parallel links, alternate routes or dial back-up routes
- Simplified Management of Entire WAN—distributed or centralized management from any site; transparent to existing network management functions
- Cost Savings by Sharing Circuits—the same circuit carries synchronous and Ethernet communications for lower line, maintenance, and management costs

HERE'S HOW VITALINK'S TransLINK SERVER FITS INTO YOUR 802 WAN

The TransLINK server packages synchronous data into Ethernet frames for transmission over a virtual circuit on an Ethernet/802.3 LAN or the extended 802 WAN. It multiplexes a variety of protocols onto a single transmission medium usually operating at higher speeds than the segregated serial links. All link speeds are software defined, which allows the host links to operate at a different speed than the backbone circuits or even the remote device or host; each device runs at its optimum speed.

TransLINK servers let you replace point-to-point and multipoint lines that link a host to another host or to RJE devices. Each TransLINK port can have a virtual connection to any other TransLINK port in the network. This lets you configure your network logically, without the physical restrictions of multiple hard-wire connections.



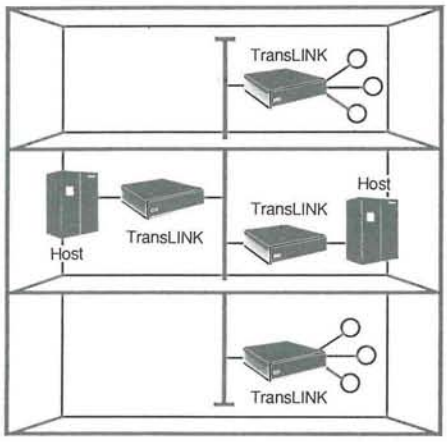
TransLINK connects any port to any port

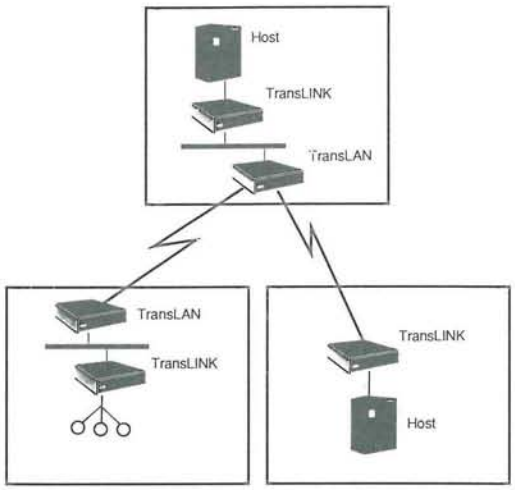
ADDITIONAL TransLINK BENEFITS:

- Potential for Improved Response Time—uses high-speed lines and decouples device speeds from actual circuit speeds—each device can run at its optimum speed
- Simple Operation with Fewer Network GENs—the software-defined configuration significantly reduces the number of network GENs needed as devices are moved about the network
- More Complete Management Statistics—network performance, response time and utilization information allow more accurate diagnostics and growth planning
- Cost Savings—fewer physical circuits, better performance, less downtime, and unified management all mean lower costs

TYPICAL TransLINK APPLICATIONS

Link your IBM SNA/SDLC environment across Ethernet. TransLINK provides SNA/SDLC PU 2, 4 to PU 2, 4 connectivity to connect your host to other hosts, controllers, and intelligent workstations throughout the building, using the existing Ethernet backbone. TransLINK is completely transparent to SNA LU 6.2 and all IBM managment systems. You gain economy and convenience by eliminating your point-to-point wiring and using a single, high-performance backbone network for all your communications.

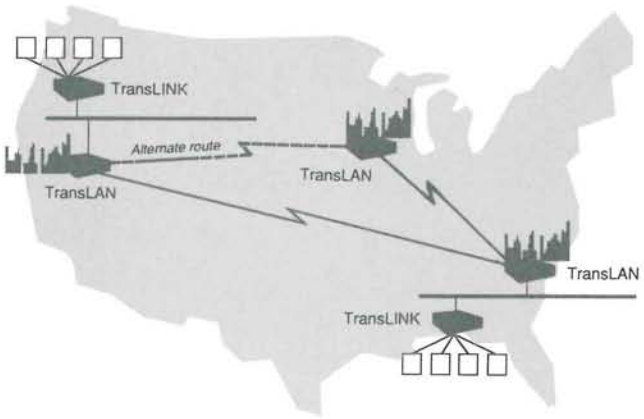




—Or your Bisync workstations to your FEP. TransLINK supports BSC interactive environments for 3270 applications and BSC RJE environments for 2780/3780 RJE links and host to 2780/3780 links. You can connect TransLINK to a local Ethernet and then into an 802 WAN with TransLAN, or have a direct communications link from a remote TransLINK to the headquarters TransLAN. You gain simplified, consolidated communications through a common backbone, from your workstations all the way to the host.

—Or your synchronous DNA equipment operating under DDCMP, or virtually any bit- or byte- oriented protocol. TransLINK supports all bit- oriented protocols such as X.25/HDLC, SDLC, and ADDCP. And it supports all byte-oriented protocols that use the IBM Bisynchronous Control Characters and message formats, such as IBM 3270, 2780/3780, HASP RJE, and NCR 725.

When you add TransLINK, you gain a single, transparent network that reduces duplication of transmission facilities and network management functions.



MAKE TransLINK SERVERS PART OF YOUR GROWING 802 WAN

- Extensive Network Management Capability

The TransLINK server minimizes shutdowns for reconfiguration or problem diagnosis. You can reassign a virtual port-to-port connection in an operational configuration. TransLINK servers also provide complete network statistics, response times, and alarms. They complement the higher-level network management facilities to give you extensive "in-band" visibility and control of the network. Centralized or distributed network management capability lets you control your complete network from one or several sites.

- Complete Support from Vitalink

As a TransLAN user, you're already aware of the comprehensive assistance you get from Vitalink in managing your network and planning configurations. Our Network Operations Center offers 24-hour support every day of the year, including dial-in diagnostic service for fast trouble resolution.

- We're Committed to a Standardized, Vendor-Independent Network

As a voting member of the IEEE 802 Standards Committee, we'll continue to bring you the benefits of a standardized backbone communications network. And, as more and more 802-conforming products and services become available, you'll be able to add them to your network to meet all your future data communications needs.

- A Complete Line of Network Products

Our standardized line of network products helps you communicate better: TransLAN; TransRING; TransSDLC™, TransLINK; SatLAN™. All are based on the IEEE 802 standard and connect through a single network: the 802 WAN. And all are dedicated to extending the performance, connectivity, and manageability of your data communications to the next building, across the country, around the world: easily, reliably, and economically.

Call our Sales Support Group today 800-443-5740; in California, 415-794-1100 or send in the enclosed reply card. Start realizing the benefits of combining synchronous and Ethernet communications on the 802 WAN—with TransLINK.

VITALINK COMMUNICATIONS CORPORATION
A Data Networking Company

6607 Kaiser Drive Fremont, CA 94555 800-443-5740 (415) 794-1100 TELEX 345566 FAX (415) 795-1085

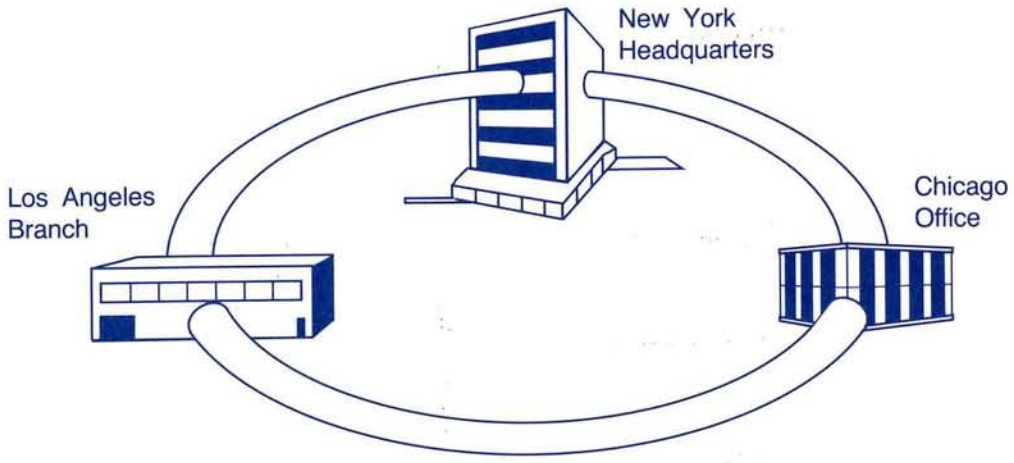
THE TransRING 550 BRIDGE WITH DISTRIBUTED LOAD SHARING

FOR IBM TOKEN RING NETWORKS

The new TransRING™ 550 bridge brings to the IBM Token Ring/802.5 environment all the proven technology and benefits that have made Vitalink TransLAN® bridges the de facto standard for extending Ethernet LANs. The TransRING 550 is a transparent remote bridge that connects geographically dispersed IBM Token Ring or IEEE 802.5 LANs to create a high-performance, protocol-independent, wide area network—the 802 WAN™.

TransRING extends the proven benefits of TransLAN bridges...

- **Seamless Connection of Multiple LANs**—extended-LAN connectivity across all your facilities; every resource appears to be on the same LAN to every user
- **Protocol Transparency**—passes all higher-level protocols, such as LU 6.2, NETBIOS, and TCP/IP transparently
- **Standards Compliance**—over 400 vendors support the 802 standard for a ***truly*** open network architecture



...to the IBM Token Ring/802.5 world:

- **Vastly Improved Network Performance**—use virtually all of the network paths and bandwidth for increased throughput and flexibility; reduce network delay with direct routes; supports two T1 lines or up to eight lower-speed links
- **Better Management Control**—assign routes for load distribution; assign class-of-service priorities for high priority data; get comprehensive statistics for better planning and control

VITALINK—ARCHITECT OF THE 802 WAN

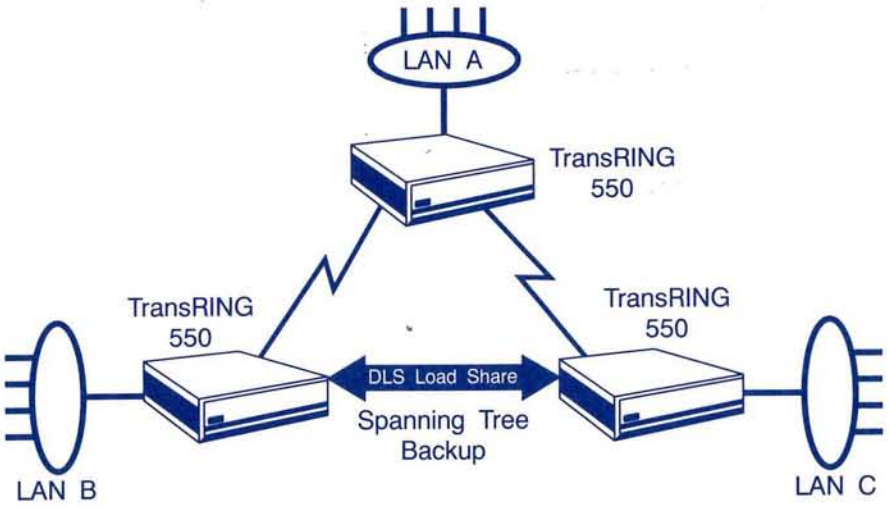
Vitalink has introduced a new generation of data-link-layer bridges: the routing bridge. The TransRING 550, with Distributed Load Sharing (DLS), combines the path control of a router with the protocol transparency of a bridge to bring new levels of performance to your network.

The TransRING 550 is a product of our four years' experience in building better bridges. Vitalink introduced the TransLAN bridge—the first transparent, data-link-layer bridge—in 1984. TransLAN bridges quickly became the de facto standard for connecting geographically dispersed Ethernet or IEEE 802.3 LANs into a single, integrated wide area network: the 802 WAN.

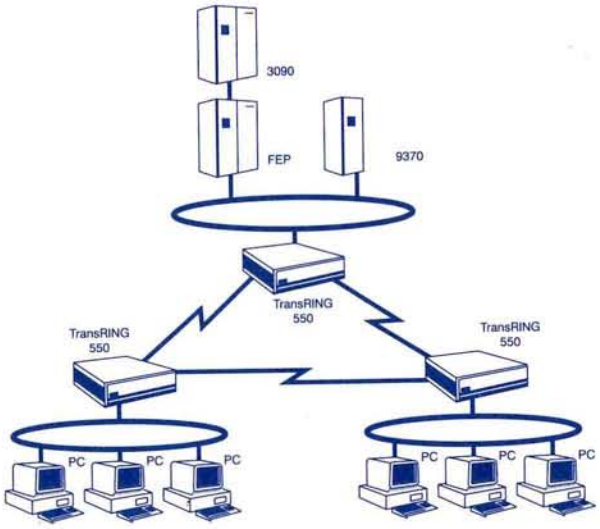
Vitalink and Digital Equipment Corporation introduced the Spanning Tree Protocol (STP) in 1987. The STP automatically detects loops in a network, and places "high-cost" links in a backup state automatically and deterministically. It enables networks to be designed with alternate backup links and automatic-recovery links for reliable, fault-tolerant communications with no single points of failure.

Now, Vitalink has extended the STP capability with Distributed Load Sharing (DLS) to enable those backup links to carry traffic during normal operation. This new capability provides full utilization of available network bandwidth and the use of alternate routes for network load distribution. You can use TransRING bridges with cross-links, parallel paths, and alternate routing to create an extremely flexible and reliable network.

Don't worry about loops—design with them!

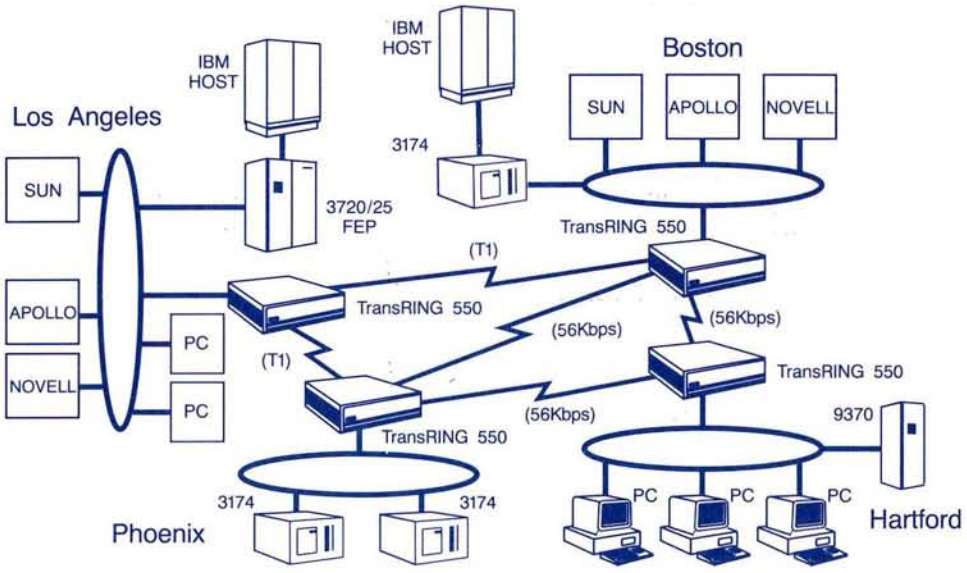


TransRING 550 BRIDGE APPLICATIONS



Central Processing with Remote Users

This application allows remote TransRING users to take full advantage of central processing facilities with all the convenience of a local user. The Spanning Tree and Distributed Load Sharing functionality of the TransRING bridges arranges the optimum network topology and establishes direct routes for peer-to-peer and work station-to-host connectivity. If a primary path fails, traffic is automatically rerouted over a backup link for continued network operation.



Distributed Processing

The transparency and power of TransRING bridges can be applied in elaborate networks using multiple paths for flexibility, high throughput, and reliability. Mesh topologies are ideal for distributed load sharing across alternate links for maximum throughput and fastest response time. Loss of any link in this network results in automatic rerouting of traffic for continued service. Network management functions can be either centralized at any site or distributed to all sites.

ADDITIONAL BENEFITS

DS1 Support—direct connection to your T1 CSU; no separate DSU to buy or manage; reduced cost of ownership with greater DSU manageability

Trace Address Path—identifies all links and TransRING bridges used between the source and destination addresses

Dial Support—extra bandwidth when needed for occasional users; automatic or manual emergency backup, via AT&T Accunet Switched 56 service

Automatic Adaptive Learning—easy installation and automatic reconfiguration of bridges when stations and LANs are moved or added

Assured End-to-End Data Integrity—original Token Ring CRC is preserved; full parity protection on internal memory and busses

DLS is Just The Latest Advance from Vitalink—the Leader in 802 WAN Technology

The 802 WAN is a high-performance, protocol-independent wide area network, based on the IEEE 802 standard, that is created by linking Ethernet and 802.3 LANs with TransLAN bridges or by linking Token Ring and 802.5 LANs with TransRING bridges. Every station on the network appears as a local station to every user. The 802 WAN uses transmission facilities such as leased lines, fiber optic cable, microwave, and satellite links. Approximately 3,000 TransLAN bridges are in service around the world, creating 802 WANs that range in size to over 60,000 users.

Additional Vitalink Products and Services include:

TransLAN bridges are transparent data-link-layer bridges that connect Ethernet or IEEE 802.3 LANs to form an 802 WAN. They filter every frame on the Ethernet and forward frames that are addressed to remote LANs.

TransSDLC™ servers integrate your SDLC 3270 controllers and FEPs into the 802 WAN, eliminating multiple point-to-point or multipoint SDLC lines and the physical restrictions of multiple FEP port connections.

TransLINK® servers capture bit- and byte-synchronous protocols such as BISYNC, HDLC, HASP, DDCMP, and X.25 for transport through the 802 WAN and provide extensive statistics and management capability.

SatLAN™ is a complete, simple, and reliable satellite system that combines TransLAN bridges or TransSDLC and TransLINK servers, Vitalink earth stations, satellite capacity, and 24-hour surveillance service. SatLAN makes satellite communications practical for networks of two to fifty nodes.

Vitalink Support provides assistance in planning, managing and supporting your network. Our Network Operations Center offers 24-hour technical support 365 days a year, including dial-in diagnostic service for fast problem resolution.

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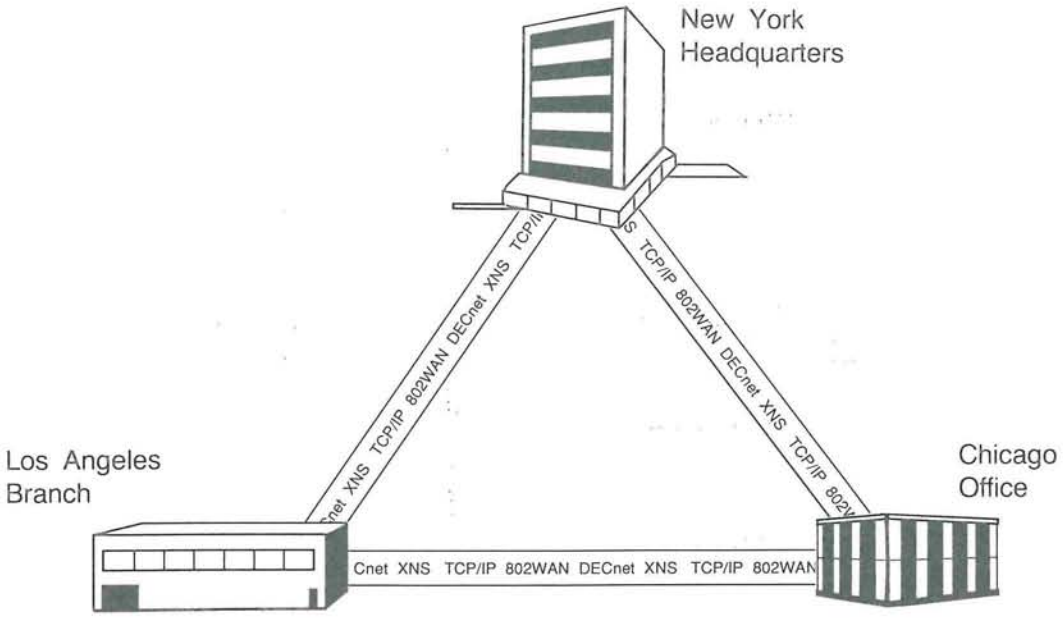
TransLAN 350 and TransLAN III with DISTRIBUTED LOAD SHARING

FOR THE 802 WIDE AREA NETWORK

Vitalink introduces a new generation of data-link-layer bridges: the routing bridge. The TransLAN 350 and the TransLAN III, with Distributed Load Sharing (DLS), combine the path control of a router with the protocol transparency of a bridge to bring new levels of performance to your network. You now can use TransLAN bridges with cross-links, parallel paths, and alternate routing to create an extremely reliable, manageable, and protocol-independent network: the 802 WAN™

DLS expands the proven benefits of TransLAN bridges...

- Seamless Connection of Multiple LANs—extended-LAN connectivity across all your facilities; every resource appears to be on the same LAN to every user
- Protocol Transparency—passes all higher-level protocols, such as DECnet, XNS, and TCP/IP transparently
- Standards Compliance—over 400 vendors support the 802 standard for a *truly* open network architecture



...to include these new, powerful capabilities:

- Vastly Improved Network Performance—use all of the network paths and bandwidth for increased throughput and flexibility; reduce network delay with direct routes
- More Management Control—assign routes for load distribution; assign class-of-service priorities for high priority data; get comprehensive statistics for better planning and control

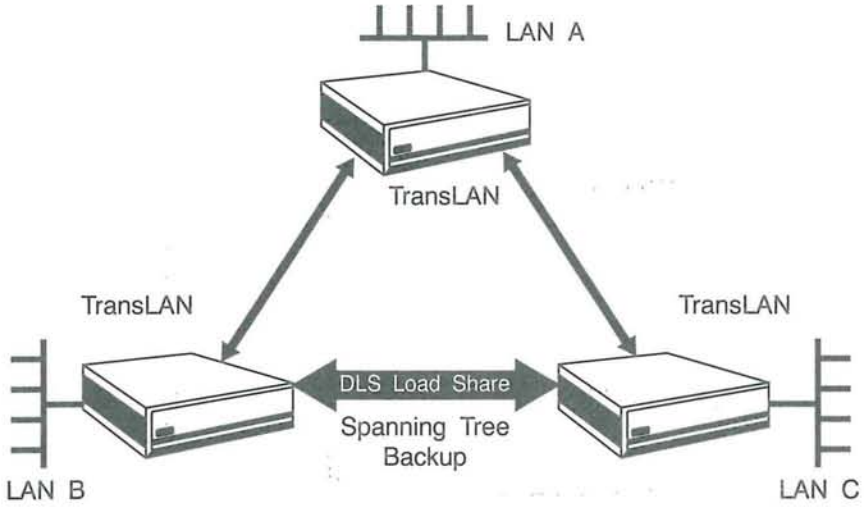
VITALINK—ARCHITECT OF THE 802 WAN

The TransLAN 350 and TransLAN III are products of our four years' experience in building better bridges. Vitalink introduced the TransLAN bridge—the first transparent, data-link-layer bridge—in 1984. TransLAN bridges quickly became the de facto standard for connecting geographically dispersed Ethernet or IEEE 802.3 LANs into a single, integrated wide area network: the 802 WAN.

Vitalink and Digital Equipment Corporation introduced the Spanning Tree Protocol (STP) in 1987. The STP automatically detects loops in a network, and places "high-cost" links in a backup state automatically and deterministically. It enables networks to be designed with alternate backup links and automatic-recovery links for reliable, fault-tolerant communications with no single points of failure.

Now, Vitalink has extended the STP capability with DLS to enable those backup links to carry traffic during normal operation. This new capability provides full utilization of available network bandwidth and the use of alternate routes for network load distribution.

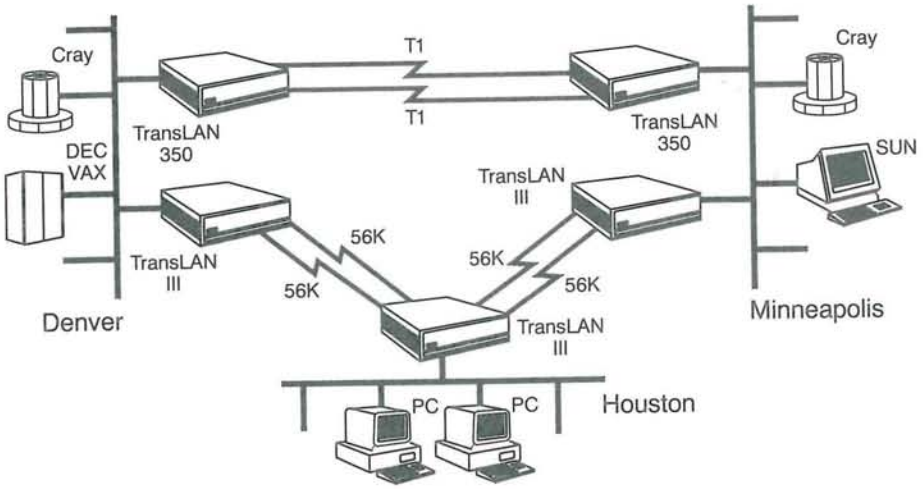
Don't worry about loops—design with them!



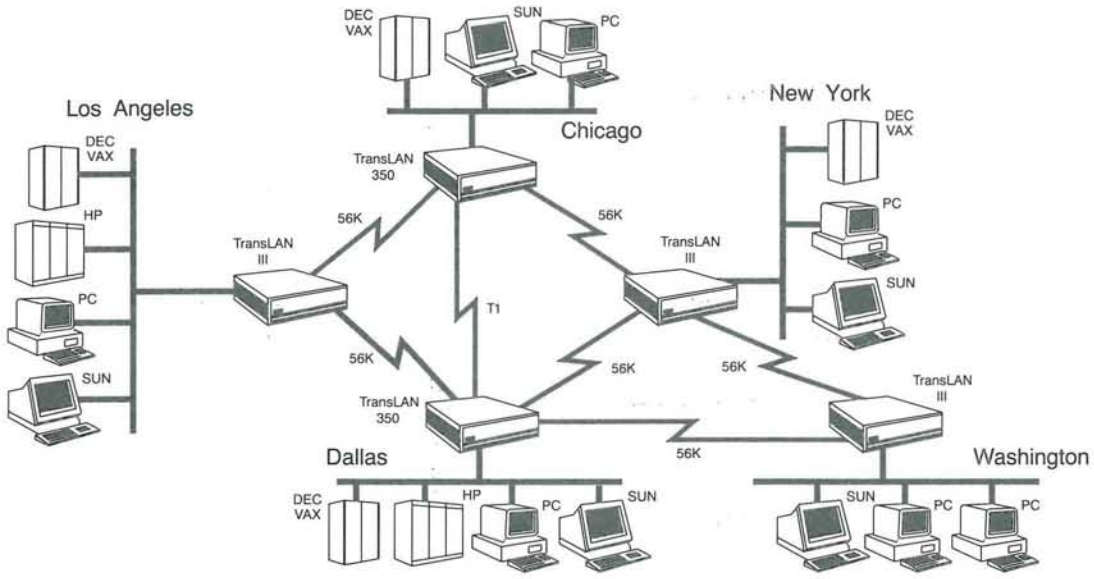
TWO TransLAN MODELS WITH DLS TO MEET YOUR NETWORK REQUIREMENTS

The new TransLAN 350, which supports two T1 lines, offers even greater performance power than the TransLAN III, which supports one T1 line. Both models can have up to eight ports for a high degree of network configuration flexibility. And both have full DLS functionality to make use of virtually all the network links, regardless of physical topology.

TYPICAL TransLAN APPLICATIONS



Combinations of TransLAN 350 and/or TransLAN III bridges create high throughput, reliable communications between multiple data centers. In this example, all bridges *and* all links are fully redundant. The TransLAN bridges interoperate to automatically configure the optimum network topology. You can easily set up the system to route each packet over the next available link or to route specific types of traffic over one link. The DLS capability provides network load sharing between the remote LANs. If any link goes down, all traffic is rerouted across a parallel link. If any bridge fails, all systems interoperate to rebuild a path between all three Ethernet segments.



Mesh Networks for Complete Communications Capability

The transparency and power of TransLAN bridges can now be applied in elaborate networks using multiple paths for flexibility, throughput, and reliability. Mesh topologies are ideal for distributed load sharing across alternate links for maximum throughput and fastest response time. Choice of TransLAN III or TransLAN 350 is governed by the processing requirements; they are completely compatible functionally. Loss of any link in this network results in automatic rerouting of traffic for continued service. Network management functions can be either centralized at any site or distributed to all sites.

ADDITIONAL TransLAN BENEFITS

DS1 Support—direct connection to your T1 CSU; no separate DSU to buy or manage; reduced cost of ownership with greater DSU manageability

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