

Hewlett-Packard AdvanceNet for Regional Sales and Service
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Many companies have facilities located over a wide geographical area. This may be for economic reasons (lower transportation costs, availability of materials), historic reasons (acquisitions), or competitive reasons (closer to the customer). These remote offices may vary widely in size, from a single salesperson on the road to a regional headquarters employing hundreds of people. The communications needs may also vary widely, from a simple link into a remote host to access a price file to networks designed to exchange and consolidate order information from many different branch offices.

The sales and service organization is a prime example of such a distributed organization. Sales and service can also be a key competitive advantage; excellent sales and service is one of the best ways for a company to distinguish itself. But this creates special problems. The cost of direct customer visits has skyrocketed in the last decade, yet sales and service remains the least automated function. Nevertheless, being responsive to the customer often means being able to provide increasing amounts of information (delivery commitments, order status, parts availability) on the spot.

The computer systems and networks used to provide that information are increasingly complex. Different applications reside on different vendors' systems; connecting those systems and maintaining the network is an increasingly difficult challenge. As companies seek to distinguish themselves by their sales and service, they also look to new applications that must be distributed over the entire network.

A good regional network must support communications options, allowing the users to mix and match choices in a way that minimizes costs while providing performance alternatives to offices of varying size. The network as a whole must also be flexible but cost effective.

The sales and service organization must have easy and quick access to information distributed throughout the company. It must be able to communicate that information both within the organization and to outside vendors and customers.

The systems and networks providing this information must be reliable and easily available from remote locations. Systems from different vendors must be able to exchange information. There should be services available to manage the network and to help create distributed applications.

Networking Environment

Offices:

- Geographically dispersed
- Varying sizes and communications needs



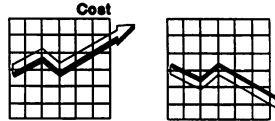
Sales & Service Organization:

- Increasing cost of sales force and service organization
- Growing responsiveness to customer needs



Systems:

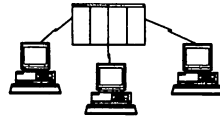
- Increasing network maintenance complexity
- Sophisticated application development and version control



Networking Needs

Offices:

- Scalable branch/regional networking
- Cost-effective wide area network



Sales & Service Organization:

- Efficient information access and internal communication
- Ease of use/transparent access



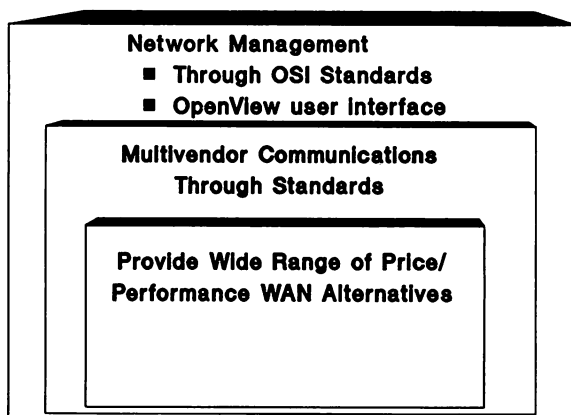
Systems:

- High availability of network/systems
- Multivendor communications for company-wide access
- Distributed application services



The Hewlett-Packard AdvanceNet Regional Sales and Service solution is the answer to these problems. Hewlett-Packard AdvanceNet is a strategy, not an architecture, developed to meet fundamental customer needs: communications between equipment of different vendors, focused solutions for specific business environments, and outstanding service and support. The Regional Sales and Service solution addresses the requirements of the geographically dispersed organization in three key ways. First, it offers a wide range of price/performance alternatives for wide area networking. Second, it offers networking based on Open Systems Interconnect (OSI) and de facto standards, allowing easy communication between differing vendors. Third, it offers network management based on the emerging OSI standards and Hewlett-Packard's friendly OpenView user interface.

Regional Sales and Service Network Strategy



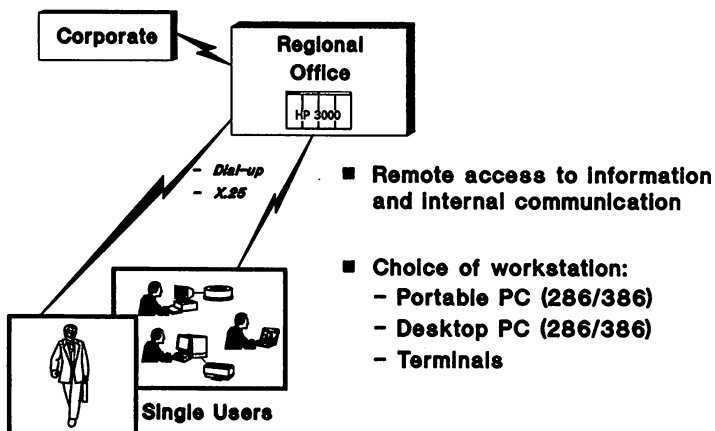
HP ADVANCENET
RS806

 **HEWLETT
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The smallest office in the Regional Sales and Service solution is a single user. This will usually be an individual salesperson, either on the road or working at a remote location. This person is usually seeking remote access to information and internal communication (electronic mail). AdvanceNet offers connections for a variety of workstations, including portable PCs, desktop PCs, and terminals. Because of the low volume of information being exchanged, a simple point-to-point dial-up connection is usually the most cost-effective. When links to many different locations are important, a connection to a public X.25 network can be used. Tools such as AdvanceMail and Information Access give the user easy access to electronic mail and information in databases on the host system.

Regional Sales & Service

Individual Sales & Service Solution



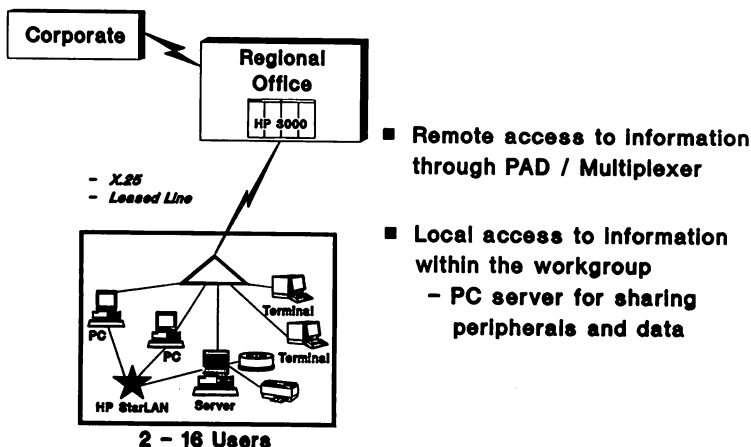
HP ADVANCENET
RS506

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In a medium-sized branch office, several workers need to both share work locally and access remote locations. A personal computer network provides the branch office with local file and peripheral sharing. The Hewlett-Packard 2334A PAD/Multiplexer provides remote connectivity, with terminal access to regional office computing power, applications and information. A variety of communications links are available. For low-volume traffic and infrequent use, a dial-up line is still the most cost-effective. Where there is medium to heavy traffic between offices, leased lines or X.25 networks make more sense. X.25 networks are the best answer when multiple other branch offices must be accessed.

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Medium Branch Office Solution



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RSS09

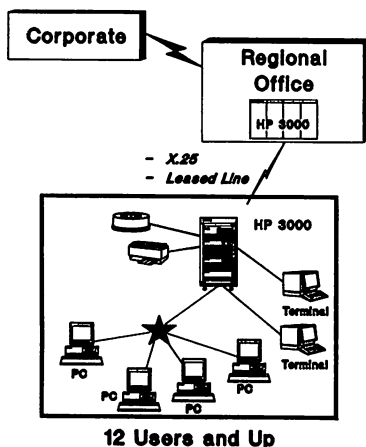
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In a large branch office or regional headquarters, workers still need to both share work locally and access remote locations. But the applications or number of people now require the local data processing power of an HP 3000. Both terminals and PCs may be connected directly to the HP 3000, or the PCs may be hooked up via a LAN.

Other remote locations can be accessed with the Asynchronous Serial Link for low-cost access for low-volume traffic, with the NS Point-to-Point Link for high-performance access, or with the NS X.25 link, which provides cost-effective access to multiple regional and branch offices.

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Large Branch Office Solution



■ Local & remote access to information

- Low cost: Asynchronous serial network link
- High performance: X.25 or point-to-point link

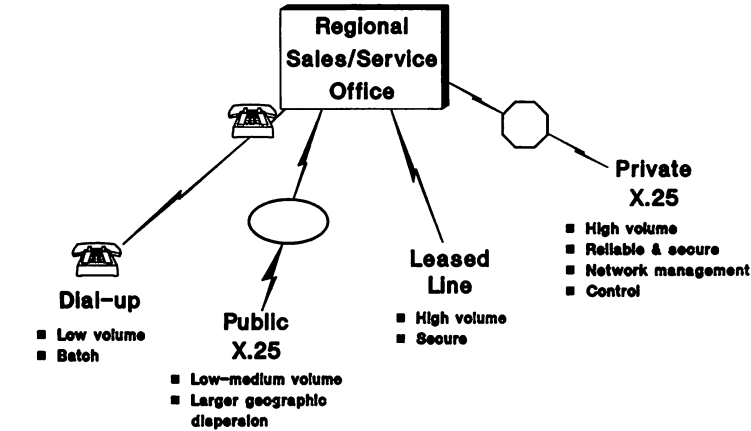
HP ADVANCENET
R5510

hp HEWLETT
PACKARD

Thus within the regional network, AdvanceNet offers solutions on the full range of terminals, PCs, and larger systems. These solutions run over a variety of links, allowing a company to mix and match alternatives for the best price/performance solution for each office.

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Regional Backbone Links Solutions



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RSS11

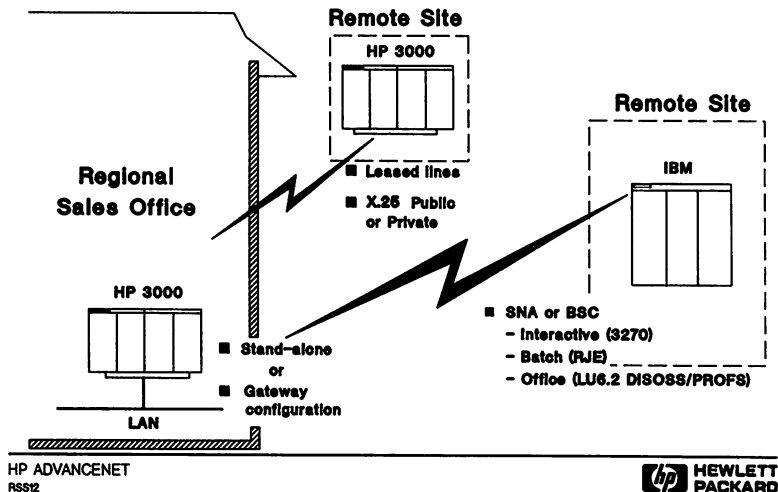


In the Regional Sales and Service environment there is often a need to share information with systems located in other remote data centers within the company (e.g., corporate headquarters, manufacturing plants, and engineering sites). These data exchange capabilities are need for end users who access remote applications and data bases, and for software processes running over multiple systems.

The way HP systems are interconnected with remote HP or IBM systems across a backbone network depends upon which backbone network is installed. For HP to HP communication, the X.25 based solutions already described provide the best peer-to-peer communications. For HP to IBM communications, AdvanceNet supports links over both SNA and Bisync. IBM services supported over these links include interactive services (3270), batch remote job entry (RJE), and electronic mail connections to DISOSS (over LU 6.2) and PROFS.

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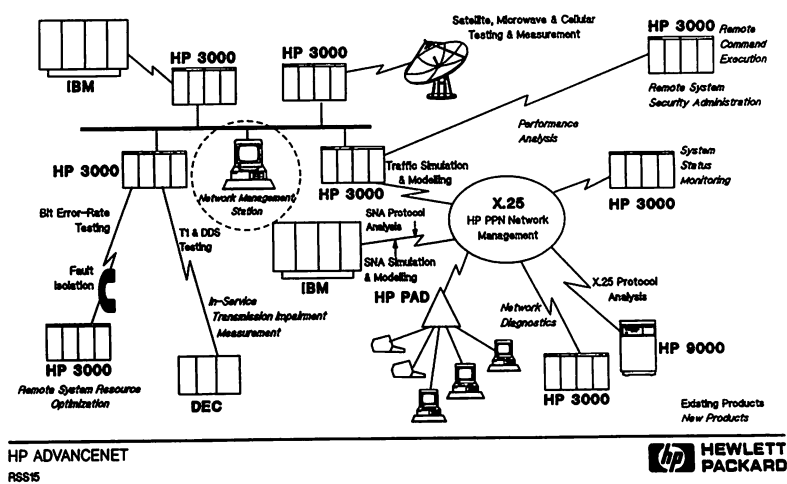
Corporate Access Solution



Network management is the ability to monitor, diagnose and control each component of a network. AdvanceNet now includes OpenView, Hewlett-Packard's comprehensive family of network management tools and services. Integrating many of the OpenView products is OpenView Windows, a graphical interface offering the network manager a visual network map and common simple "look and feel" to each tool. Each of the other OpenView products offers a specific tool for a given network management task. Most of the OpenView products are based on the OSI standards, allowing the network manager to ultimately manage a network incorporating products from many different vendors.

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HP OpenView for Managing HP WAN's



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HP OpenView WAN Management Tools

HP OpenView Windows

- Integrated User Interface & Application Integration Point

HP OpenView Status & Diagnostic Monitor

- Remote System Status Monitoring, Network Diagnostics, Fault Isolation

HP OpenView Performance Monitor

- Remote System Performance Analysis

HP OpenView Network Command Interpreter

- Remote Command Execution
- Remote System Resource Optimization & Performance Analysis with OPT/3000
- Remote System Security Administration with Security Monitor/V

HP OpenView ITIMS Manager

- Centralized Transmission Impairment Measurement through HP OpenView Windows

HP ADVANCENET
RSS15B



The Regional Sales and Service solution also includes services to support distributed applications. This includes NetDelivery, an asynchronous store and forward facility, and X.400, the OSI message handling system.

Complex, geographically dispersed networks need strong service and support. Hewlett-Packard has always been known for its service, and AdvanceNet offers a full range of network support services, including network planning and design, start-up and implementation, maintenance, and education. Any and all of these services can be tailored to meet a customer's unique requirements.

In summary, the AdvanceNet Regional Sales and Service solution offers the products and services needed to build a strong, cost-effective wide area network.

Regional Sales & Service

HP Multivendor Network Support

PLAN	IMPLEMENT	OPERATE
<i>Network Support</i>		
Network Planning & Design	Network Startup Network Prepare	NetAssure PPN Network Operation
<i>Systems Support</i>		