

IN EUROPE, THE NEXT WALLS TO FALL WILL BE ELECTRONIC

Companies are racing to build Continentwide computer networks

For decades, British Petroleum's European oil unit let its subsidiaries in other countries operate pretty independently. But with unification of European markets on the horizon, the downside of that practice is becoming painfully apparent—and nowhere more so than in its information systems. Each of the dozen units installed its own computers, so systems in one country can't share cost and product data with those in another. That makes finding the cheapest, closest gasoline for a distributor in Barcelona a headache—even if it's just across the gulf in Marseilles.

It's Donald Feldman's job to break down such barriers and smooth the way electronically for the integration of British Petroleum Co.'s European subsidiaries. As director of information systems, he's working furiously to cobble together a BP network for the new Europe. When he's done, records of every important transaction, from orders to invoices, will be available to managers from London to Rome. But it will cost millions of dollars and take four years to get to that point. "We're pouring a lot of blood and treasury into this project," says Feldman.

FURIOUS PACE. Similar efforts are under way at most multinationals, as they get ready for intense pan-European competition. A key competitive tool will be efficient networks to track business across the Continent. "The ante in information management is rising," says Frank Huff, Dow Chemical Europe's systems vice-president. A recent survey by Yankee Group, a market researcher, found that large European companies plan to boost the volume of data they send over private networks by 40% to 100% annually in the next five years. Today, however, few have much beyond rudimentary electronic-mail networks.

So the network-building is fast and

furious. Dow Europe is launching a three-year project to tie together its \$4 billion Continental chemicals and plastics businesses. The massiveness of the project will require a special group just to keep tabs on all of the cross-border network links among 115 plants. Hertz Europe Ltd. is linking 15 national units through a superhub near London to

companies. Quality varies widely and differing tariffs and technical standards among the phone companies make networking a logistic nightmare. Charges for high-speed private lines in Germany run up to eight times as much as those next door in Denmark. And equipment breaks down four times more often in Greece than in Sweden. The European Commission's plan for gradual deregulation of telecommunications markets—which began last July—should create more competition and, eventually, improved service.

HEADACHES. Things are even stickier when data must flow not only across national boundaries but from one company to another and between many different brands of computers. But such networks are needed. In September, the Baltic & International Maritime Council (Bimco), the Copenhagen-based ship-chartering standards body, launched an eight-country pilot network to automate bids and contracts between cargo-ship owners and customers. Bimco's 3,500 members need common data-interchange rules for everything from ship-packing instructions to customs declarations. "We're talking about coordinating logistics for the world's transportation system," says Peter Button, network marketing manager for Digital Equipment Corp., Bimco's network contractor.

Of course, such headaches spell opportunity for companies that sell high-tech aspirin. Digital Equipment, Infonet in El Segundo, Calif., and Cap Gemini Sogeti in Paris are expanding their presence in Europe, offering everything from international network design to installation and day-to-day management. And to duplicate the kind of one-stop shopping that U.S. companies get from such carriers as AT&T and MCI, British Telecommunications and France Telecom have offered

to manage all connections between various Continental phone companies.

Even with this, analysts say, it will probably be 1995 before standardization of telecommunications and hardware begins to make European networking an easier chore. Until then, says Tim Kelly, communications policy analyst for the Organization for Economic Cooperation & Development, "a network is only as strong as its weakest link."

By Jonathan B. Levine in Paris



Europe has a dozen national phone companies, which makes networking a logistic nightmare

automate car rental check-in/check-out procedures. By late 1991, Internet, an association of credit-reporting agencies in 13 countries, plans to offer domestic clients the ability to tap financial reports of companies in each others' markets over a common network.

Hooking up such complex networks is hard enough in the U.S., where a single long-distance phone company can do much of the work. But in Europe, there are more than a dozen national phone