Local processing adds an important measure of reliability to DFAIT's operations. If a country's network link goes down, for example, the local servers and intelligent clients can allow the mission to continue to operate. Pending messages are automatically exchanged when the link comes back up. In a worst case — where a LAN goes down at a particularly inaccessible site and there is no local support — the systems on each desk can continue to provide basic office automation services in stand-alone mode, and clients can access the head office's database using a modem through the public telephone system.

One of the most significant benefits of the client/server network is DFAIT's more efficient use of its precious bandwidth resources. "We simply couldn't afford the traditional dumb terminal/host applications, because sessions take up too much bandwidth," explains Hartling. "As a result, we still have scores of manual business processes that should have been automated long ago and that the new platform now allows us to tackle."

SIGNET takes care of these bandwidth concerns, both by distributing local processing to individual missions and by efficient compression of all the information that does traverse the network. By sending single packets of compressed data — instead of transmitting every single keystroke, as mainframe/terminal applications did — the SQL server frees up an enormous amount of the network's bandwidth. This allows the agency to develop a flood of new applications to make information as accessible to diplomats in the most remote outposts as to DFAIT's headquarters staff.

"So far, we've only scratched the surface in terms of what the SIGNET infrastructure can do for us," says Hartling. "Once this infrastructure is rolled out to all our global operations, it will revolutionize the way we do business."

Standardization on the Intel architecture means that DFAIT is ensured a wide choice of cost-effective client and server equipment that will continue to meet its information technology needs, far into the future. DFAIT feels it has made the right decision in its standards-based client/server network. Says Lambert: "We have built a platform that will easily take us into the next century."

The New Computer Industry

In the past, the Old Computer Industry imposed proprietary, top-to-bottom solutions. Today, the New Computer Industry offers flexible solutions that run on scalable, Intel processor-based systems. Customer demand has attracted thousands of suppliers who deliver hardware, software, and services based on recognized industry standards. With more competition, costs go down and innovation increases. No more following in lock-step with monolithic systems vendors. Now you can make information technology a strategic advantage by choosing the products and services that best fit your needs. The vast majority of those products and services are based on Intel processor technology. That's why we say that Intel technology is performance tuned for business.

"Missions can manage themselves and we can see what's happening."