How HP Helps Nortel Build FiberWorld

When he first looked at standards, Mahbeer realized UNIX was not designed for real-time and Ethernet was non-deterministic. But his CIM group designed around both issues to take advantage of the cost savings that open systems provide. He also standardized on Ingres' database and added two other requirements:

- a minimum of vendors for better support
- a commitment to standards so he can change vendors if they don't supply the support

The resulting HP open-systems configuration includes:

- An HP 9000 380/425 as cell controller and a Shop Aids server (a documentation system developed by Northern Telecom to make the manufacturing line more people-oriented)
- An HP 9000 750 for software replication and database server
- An HP 9000 845 as another database server
- Over 100 HP 700/RX X Stations (also manufactured in Canada) on the assembly line

The servers and X Stations are connected over a 10Mbit/second Ethernet LAN and to the outside world (especially Northern Telecom design data and files) via a wide-area network. The combination of HP 9000 Series 700 and 800 models in the configuration further demonstrates HP's commitment to compatibility.

The CIM group used HP and other development/CASE tools, including C, HP Softbench and Ingres Windows 4GL. Mahbeer also wanted to take advantage of a variety of graphics-intensive applications. The X Stations let them "hook to the multiple servers as well as to different machines, including the mainframe."

The future includes the addition of computer-aided process planning and shopfloor scheduling to the system. He also wants to tie in to Northern Telecom's HP UNIX executive information system that provides sales, customer information and product margins to top management. This system enhances the capabilities of a broad range of users throughout the company to track product sales, control sales margins and monitor customer product positions for the division, a key complement to Mahbeer's "lot-size-of-one" philosophy. This application was developed on a Hewlett-Packard 9000 extracting sales data residing on an HP 3000.