

UHN secures network layer as part of data centre move

Toronto Hydro Telecom connects hospitals with HP facility
by Neil Sutton - 6/24/2004

■ The [University Health Network](#) is in the final stages of a transition to an HP data centre, but the all-important network layer had to be secured first.

For the network piece, UHN (comprised of Toronto General, Toronto Western and Princess Margaret hospitals, all in the city's downtown core) contacted an unlikely partner.

UHN had been leasing dark fibre from [Toronto Hydro Telecom Inc.](#) since the mid-1990s, but only recently considered the company for broader telecommunications services.

After UHN [selected HP Canada](#) to manage the organization's application and server infrastructure from its data centre in Mississauga, Ont., it required a way to transmit all that information.

"When it came time to look at a wide area connection -- going out 40 km -- we were initially looking at 100 Mbps links, thinking that was all we could afford," said the UHN's acting director of IT, Ken Lawrence.

He said that UHN contacted a number of "traditional telecom suppliers (but) we weren't really happy with some of the prices and we were looking at having to get two different suppliers to get redundancy."

Toronto Hydro Telecom, initially not up for consideration in the selection process, eventually became the UHN's saviour. "They came back with a solution that was going to be in the same ballpark as the dual 100 Mbps links, but giving up 1 Gbps capability," said Lawrence.

The UHN required that the network -- which would carry data between the UHN hospitals as well as to the HP data centre -- be high-availability, high bandwidth and secure, said the president of Toronto Hydro Telecom, Ian Miles.

The network is 100 per cent fibre-optic cable with Gigabit Ethernet and SONET core networks. The SONET provides a 99.999 per cent uptime guarantee, said Miles. It is deployed in a ring configuration, "so there's two diverse paths between the hospitals and the data centre. Any sort of a fibre cut would fail over to the other side of the ring. That provides the reliability that they're looking for."

UHN is still in the process of moving its equipment into the HP data centre. By the end of the month, half of the 150 servers will be in place, with the remainder to be moved over by September.

"Our main patient care application has not moved, but we're in the process of (adding) new hardware. So as well as moving the application into the data centre, we're moving it onto a new hardware platform," said Lawrence.

Electronic patient records are currently being housed on-site at the UHN, but will move over to the data centre in July. UHN hospitals will have to maintain paper records for the downtime, which should only be about eight hours.

The hospitals are equipped to handle patient care purely on paper for three days, but that would occur only in the event of a dire emergency. Lawrence said UHN hospitals didn't miss a beat when Toronto was hit by a province-wide blackout last August and used backup power generators to compensate.

The UHN is considering also using an HP data centre in Markham, Ont., for an extra layer of redundancy.