



## IP storage area networks to become common

By CHANDRA DEVI

INTERNET protocol storage area networks (IP SANs) are set to become a common sight in the data storage landscape, taking over from the traditional fibre channel-based SAN (FC SANs). Such is the belief of Intransa Inc, a provider of end-to-end native IP SAN solutions.

Although FC SANs have been available for some time and offer established benefits, the company sees the high costs from an infrastructure and support perspective as a major factor that will drive more organisations to implement the alternative, lower-cost technology.

IP SANs are almost similar to traditional FC SANs, but are built on the Internet small computer systems interface (iSCSI) protocol, which enables the transmission of data across existing TCP/IP networks using the familiar SCSI protocol.

Lower TCO. International Data Corp (IDC) has reported that IP SANs are expected to draw more than 25 per cent of the global storage market by 2007, and Intransa's founder and chief technology officer Peter Wang says that the Asia-Pacific region will lead the way in IP SAN implementation.

The region has not seen wide FC SAN implementation due to high cost and difficulty of managing large FC installations but he believes that IP SAN, which offers the same benefits of FC SAN but at a much lower cost, will be more attractive.

Wang explains that the high expense of FC components have led most businesses to use FC-based SANs only for most critical corporate applications. iSCSI and Ethernet technology, on the other hand, have reached a maturity level where replacing FC with iSCSI makes a compelling proposition.

"The maturity of IP networking infrastructure simplifies the development of IP-based storage services and enables IP SANs to address storage management problems that have proven difficult for FC-based networks, such as connectivity over WAN distances."

Additionally, he says the widespread knowledge of IP networking technology enables enterprises to leverage their existing networking knowledge with minimal training requirements. All these factors lead to reduced acquisition costs, reduced administrative costs, and overall lower total cost of ownership (TCO).

"Leveraging the combination of iSCSI and Gigabit Ethernet, IP-based SAN solutions offer all the robustness and functionality of FC SANs without the expense of FC components," Wang says.

Going the way of the IP. Although IP SAN is a low-cost alternative to FC SAN, industry observers are stating that there is long-term place for FC SAN as it offers better performance. While it runs at four gigabits, compared to iSCSI's one gigabit, for FC SAN vendors, this is a selling point.

Wang, however, says that things are about to change especially now that 10-gigabit Ethernet is a reality and is expected to become common.

“The future looks bright for IP SAN business. With the availability of 10-gigabit Ethernet, SANs can push to better performance levels.

“Since there are no limitations on distance with an IP infrastructure, it is easier to implement disaster-tolerant solutions.

“Even with the additional infrastructure costs that’s required of 10 gigabits, IP SAN is still a cheaper technology than FC SAN,” Wang says.

Like everything else that has gone the IP way, he strongly believes that storage too will move in the same way. Looking at the value proposition offered by IP, the FC landscape is set to be replaced.

Wang also sees IP SAN adoption happening across the small, mid-tier and enterprise levels.