

## IBM implements Cisco IP Telephony solution at new Changi HQ.

1,000-user deployment showcases IBM's commitment to next-generation technologies

Officially opened in March 2002, the IBM facility in Changi Business Park, Singapore, is home to the IT company's ASEAN/South Asia and Asia Pacific Technology Group headquarters. Both headquarter operations fulfill business functions such as planning and control, business development, marketing and technical support as well as training for IBM's operations in the region.

Featuring 138,000 square feet of floor space, the building is the first custom-built IBM facility in Asia Pacific. It can also lay claim to another first – that of being the first IBM location in the region to adopt IP (Internet Protocol) Telephony. Each of the 1,000-odd employees – almost a quarter of IBM's talent pool in

Singapore – located at Changi Business Park is equipped with a Cisco IP Phone, a communication appliance that combines voice with data capabilities, allowing a user to make and receive high-quality voice calls as well as access Web-based information delivered over the corporate IP-based network.

IBM's implementation of IP telephony at the Changi site can be traced back to the beginning of year 2001, when the technology infrastructure for the new building was being planned. Although IBM was comfortable with traditional PABX system, its management has the vision and sees the opportunity for emerging technologies like IP Telephony.

"We did a lot of fact finding and technical evaluation, and spoke to all the key players in the voice industry. In the IP Telephony area, we looked at several solutions including Cisco's. What followed was a very in-depth technical analysis of the IP Telephony players and, in April, we invited vendors from both the PABX and IP Telephony camps to bid for the project. We selected the solution based on the best fit to our overall objectives," said Daniel Lim, Project Manager, Global Voice Infrastructure, IBM Global Services, ASEAN.



“Capital investment-wise, the numbers were about the same but IP Telephony technology offered an open platform upon which we could easily add functionality using in-house skills. It also gave us the opportunity to link the telephony world with the Web world, where IBM sees lots of opportunities. In contrast, traditional PABX systems tend to be inflexible, offer little cost-effective add-on capability, and have a low degree of user friendliness.”

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Another driving force behind the decision to take the IP Telephony route, he added, was IBM’s own reading of the market for IP Telephony solutions, a market that it addresses through its IBM Global Services arm.

“We see a big IP Telephony market out there in the Asia Pacific. For IBM to be successful in addressing this market, it makes sense for ourselves to be a user. Besides being a world-class provider, we’ve been an innovative user of technology and saw in our Changi site an opportunity to build a 1,000-user showcase of how IP Telephony can position an organization for the future.”

Other factors favoring VoIP were the undemanding system administration requirements, the need for just one common set of cabling at the desktop, and the ease of accommodating adds, moves and changes.

“Cisco’s solution stood out from the rest. Strategically as well as technically, it was a good fit with our business needs and our growth plans. We followed up with visits to a couple of Cisco’s offices to look at the actual technology and liked what we saw,” said Mr. Lim.

A pilot to confirm ‘proof of concept’ commenced soon after at IBM’s site in Kaki Bukit Techpark. This involved 20 users from the IT team, voice infrastructure team, technical support staff and non-technical business managers. After a successful installation and trial of the basic ‘quick and dirty’ applications that came with the Cisco IP Telephony solution, IBM awarded the project for the voice infrastructure at Changi Business Park to Cisco in mid-2001.

Work began soon after in earnest, for IBM had planned for operations at its new facility to begin by year-end. “Cisco played a big role in the design planning stage. Its consultants came in early and helped us size up the requirements, chart cabling needs and the configuration plan, prioritize voice packets, and so on. It was a good team effort,” said Mr. Quah.

The early planning made for a very short installation cycle and the Cisco IP telephony system, went ‘live’ at Changi Business Park in October 2001. A joint IBM/Cisco team performed the installation and configuration, and IBM enhanced the system by linking up the IP Telephony system with its corporate phone directory (dubbed “Blue Pages”), thus enabling the 1,000 staff members at Changi to easily search for the phone numbers of their colleagues worldwide.

Users took to the phone, obviating the need for structured usage training. “The Cisco IP Phone is very intuitive and easy to use, with functions like “Missed calls”, “Received calls” caller ID, etc., features that are similar to the mobile phone. The large display helped, too,” said Mr. Lim

With their colleagues all settled in the new facility and actively using the Cisco IP Phone, IBM’s IT and voice infrastructure



teams are now looking at extending the functionality of the IP Telephony platform with new features. Among the items on the drawing board: traffic news, airport/flight info, taxi booking, and unified messaging.

Having tasted sweet success with the Cisco IP Telephony solution, IBM wasted no time in embarking on another IP-based project at Changi Business Park. It is now conducting a pilot of a wireless LAN solution from Cisco. Coupled with the IP

Telephony system, the network allows IBM staffers to move freely within the facility and yet stay connected to the corporate network. IBM expects to complete the wireless LAN trial by mid-2002.

"We realized early on that IP is the way to go. When we were evaluating the voice solution for Changi Business Park, it was a question of whether we do it now or later. We chose now, and it has turned out to be a wise decision," said Mr. Quah.



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