

A COOL DEAL

CISCO'S NETWORK SECURITY PRODUCTS HELPED INDIA'S BIGGEST COMPRESSOR MANUFACTURER TO EXPAND ITS NETWORK WITHOUT COMPROMISING ON SECURITY.

Tecumseh Products India is the largest manufacturer of compressors for air-conditioners and refrigerators in the country. In a country where the mercury can hover near 40 degrees Celsius in some major cities during summer, Tecumseh helps to keep India cool.

In addition to making compressors, Tecumseh India also conducts research and development. Its research center in

Hyderabad is one of four global research and development centers for the parent company Tecumseh, which is based in the United States.

The company is thriving in India and has begun to export its compressors outside the country, to places like the Middle East, the United States, Pakistan, Nepal, Sri Lanka and other countries.

THE CHALLENGE

TECUMSEH UPGRADES ITS NETWORK BUT NEEDS TO ENSURE THAT THE INCREASED CONNECTIVITY DOES NOT OPEN IT TO ATTACKS.

Tecumseh operates far-flung operations in India. The company is headquartered in Hyderabad, with regional sales offices in Delhi, Mumbai, Chennai, Calcutta and Bangalore. To ensure speedy delivery of products, the company has 12 warehouses located throughout India.

The company has two manufacturing facilities, in Hyderabad and Ballabgarh. Built on 55 acres of land, the massive Hyderabad facility makes compressors for commercial and domestic air-conditioning systems. The Ballabgarh facility, on the other hand, focuses on refrigeration compressors for commercial and domestic refrigerators. It has a production capacity of 1.5 million units a year.

The company faces increasing competition from cheaper compressors made in China and South Korea. However, it is confident that its products are of a higher quality. As such, the company this year has set itself the ambitious target of making 1.5 million refrigerator compressors and five million air-conditioner compressors.

To achieve this, Tecumseh has decided to integrate its sales operation much tighter to production. "The Indian sales operation needed to be automated to serve customers faster," said Ranjeet Khanna, the IT Department Manager of Tecumseh Products India.

Until recently, the sales offices filed all paperwork manually. Someone at the regional office would type in the sales

order and then fax that document to headquarters where someone else would have to type that information into the production system. The system was slow, inefficient, and prone to errors.

In addition, the company needed to improve its connectivity with Tecumseh in the US. As one of the global research and development centers, its engineers would receive specifications from the US and then deliver the blueprint for the new design on tape via courier. Said Ranjeet, "The courier service is not very fast, and it can take up to seven days for the blueprints to reach the US."

Finally, Tecumseh wanted to allow its key customers into the network so they could have better visibility into their orders.

In order to do all this, Tecumseh had to get a new network. "We upgraded our LAN and WAN. At the LAN, we have a fiber backbone with Gigabit Ethernet. For the WAN, we have the RF (radio frequency) links to the Internet. We have leased lines at the sales offices and a backup VSAT (Very Small Aperture Terminal) link between Hyderabad and Ballabgarh."

However, increased network connectivity was only part of the solution. Tecumseh needed to ensure that all this investment in network connectivity would be protected by good security. "Putting information security in place has become the de facto standard for companies," said Ranjeet.



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THE SOLUTION

CISCO-BASED IP VPN, FIREWALL AND INTRUSION DETECTION PRODUCTS FORM A ROBUST SHIELD AROUND TECUMSEH'S NETWORK.

To ensure that their network would be fully protected, they turned to Cisco products and Locuz Enterprise Solutions, a Hyderabad-based network and systems integrator and Cisco Systems Partner. Locuz recommended Cisco's network intrusion detection systems, access control server and Virtual Private Network (VPN) security manager server. Tecumseh also purchased the license for 100 secure VPN clients. The implementation took six months, from February to August 2003.

Using Cisco's VPN products, Tecumseh was able to link the various sales offices to the headquarters in Hyderabad in a way that was faster and more secure. The five sales offices now run a leased line to the Internet Service Provider. These offices are then able to ride on the ISP's infrastructure to connect to Hyderabad. To ensure that the connection is secure, the various sales offices use Cisco's secure VPN client.

To allow a secure connection to the US, Tecumseh also runs a VPN between the US and Hyderabad. This allows any machine in Tecumseh US with a VPN client to connect to the VPN gateway in

India. With this in place, exchanging information securely online is now possible. In the near future, Tecumseh is planning to upgrade this to a site-to-site tunnel between Tecumseh US and Tecumseh India. This will eliminate the problem of managing multiple profiles on the Indian gateway. Instead, machines in the US will connect to the US gateway, which will handle the administration. This will also reduce the number of VPN tunnels on the gateway, thus improving performance, said Ranjeet.

USING CISCO'S VPN PRODUCTS, TECUMSEH WAS ABLE TO LINK THE VARIOUS SALES OFFICES TO THE HEADQUARTERS IN HYDERABAD IN A WAY THAT WAS FASTER AND MORE SECURE.

For customers connecting to the network, Tecumseh has made it mandatory that all customers connecting to the network need to use Cisco's secure VPN client.

Overall, the network is protected by Cisco PIX 515 firewalls which have backups (the PIX 515 Failover Bundle) built in. Cisco's network intrusion detection solutions (IDS 4210) monitor the network constantly.



THE RESULTS

CISCO'S SECURITY SOLUTION DELIVERS A SIGNIFICANTLY BETTER TCO PROPOSITION THAN THE COMPETITION AND TRANSFERRING BLUEPRINTS BETWEEN TECUMSEH OFFICES NOW TAKES MINUTES RATHER THAN DAYS.

Tecumseh picked Cisco's products after assessing it against products by competing vendors. Said Ranjeet, "Cisco won out because of its technical abilities and the total cost of ownership. The technical parts of it really amazed me. And the total cost of ownership was up to 15 percent lower than the competition."

The technical details that impressed Ranjeet were the proprietary hardened security system that eliminates security holes and performance-degrading overheads found in general purpose operating systems, the 63Mbps VPN throughput on 2000 (3DES and IPSEC-based) tunnels, the application-aware "fix-ups", the support for advanced VOIP standards like SIP and H.323, the shunning capability to integrate with the intrusion detection system, and the product integration with network standards like 802.1q.

"OUR CUSTOMERS FEEL SECURE WHEN THEY CONNECT TO OUR NETWORK. IT HELPS US BUILD CREDIBILITY."

To cap it all, there was excellent post-sales support and Tecumseh only needed a single vendor license for the complete solution.

Ranjeet believes that the return on investment (ROI) for security implementation is qualitative rather than quantitative so it is difficult to set a dollar value on the ROI of adding security. He noted, "We are preparing for a war that may never happen."

However, the upgraded, secure network has contributed considerably to the overall efficiency of the company. The setting up of the VPN between the Indian and US offices has led to tremendous savings in time. While sending over blueprints used to take about a week, this can now be done securely over the VPN and blueprints can be transferred over in minutes.

In addition, because the sales offices are now directly linked to the headquarters, sales orders are made faster and with fewer mistakes. Ranjeet estimates that there has been a time saving of 25 to 30 percent. And because of the increased availability of information on the network, the company has become more efficient overall.

Customer feedback has been positive too. Said Ranjeet, "From the feedback that we get, our customers feel secure when they connect to our network. It helps us build credibility."



THE PARTNERSHIP

TECUMSEH BENEFITED FROM THE WINNING COMBINATION OF CISCO'S ADVANCED TECHNOLOGY AND THE TREMENDOUS EXPERTISE FROM LOCUZ.

Apart from recommending and installing the various Cisco products, Locuz also provided security consultation to Tecumseh. It helped to set up the security infrastructure and design the security policy. It also designed profile-based access policies for customers' access to the network.

For Locuz, this was a challenging project. Said Uttam Majumdar, the vice-president of Locuz, "The hardest part of the implementation was to architect a complete security life cycle deployment given the fact that Tecumseh had a large list of IT products and services. The proposed architecture was to support deployment of the life cycle with 'near zero' downtime with failovers functioning across links and devices."

But despite the challenges, Locuz came through with flying colours. Noted Ranjeet, "Locuz has a very good understanding of the products and technology of Cisco. About 90 percent of the time, they would address any problems they face during implementation using internal resources, rather than going back to Cisco."

Uttam credited Cisco with giving good support to Locuz, especially during the installation phase when there were issues with integrating the intrusion detection system with the VPN management system.

**TECUMSEH, CISCO AND LOCUZ -
A COOL PARTNERSHIP INDEED.**



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