



## CISCO ENTERPRISE SOLUTIONS

### **Vimta enhances contract research services on Cisco powered network** Develops new facility running on Cisco LAN, Security, IP Tel & Wireless solutions

**Vimta Labs Limited deployed Cisco communication solutions at a new facility that boasts of state-of-the-art information technology (IT) infrastructure for providing best-of-breed services to world's top multinational corporations. Cisco provided a reliable networking platform for enhancing internal communications and information sharing across the organization.**

#### EXECUTIVE SUMMARY

**Customer name**  
Vimta Labs Limited

**Industry**  
Contract research and testing

**Business Size**  
541 employees

**Business Challenge**

- Integrate information resources on a single communication network that would be accessible to all employees
- Provide an integrated data, voice and video solution for resource sharing
- Connectivity on a secure platform

**Network Solution**

- Cisco 6513 switches with Layer III Capable Supervisor Engine 720
- Cisco 3845 enterprise class router
- Cisco Call Manager and IP phones
- VT Advantage communication solution for video functionality over IP phones
- Cisco PIX series of dedicated firewall appliances, Intrusion Detection System (IDS) and VPN management System (VMS)
- Cisco 1200 series wireless access points

**Business Value**

- Network backbone for new facility
- Robust connectivity, better resource utilization and information sharing
- Built architecture for successful convergence of data, voice and video

#### Customer Background

Established in 1984 and based in Hyderabad, India, Vimta Labs Limited provides contract research and testing services for clinical research, preclinical (animal) studies, clinical lab services and environmental assessments, and it offers analytical testing for a wide range of products. On its list of prominent customers, Vimta has six Fortune 500 companies and three of the world's top-ten generic drug development companies.

Vimta has 541 employees, comprising of 294 Scientists and Engineers, including 22 PhD's, 17 Doctors and 247 supporting staff

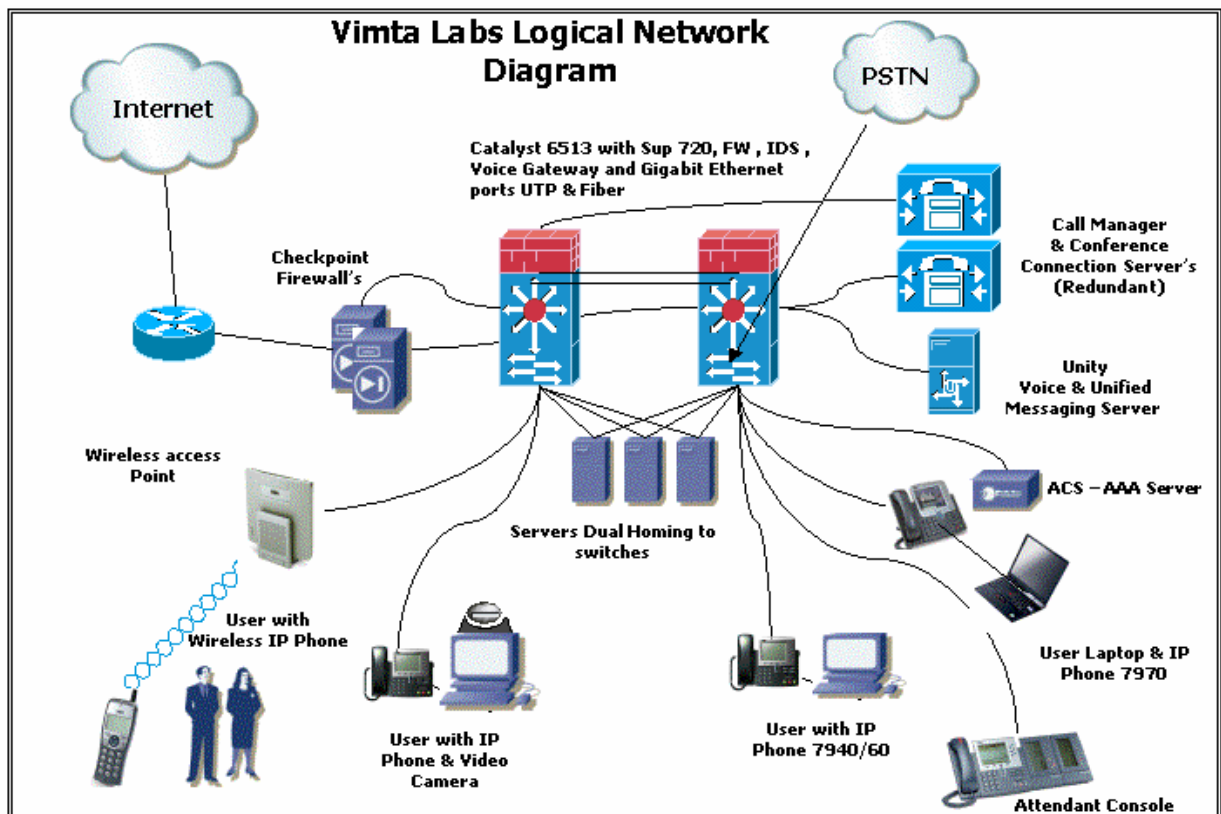
#### Business Challenge

Vimta wants to establish itself as the leading provider of contract research services for the world's top corporations, and its existing IT environment needed enhancement to support that goal. Vimta set out to create a new facility that would provide world-class IT infrastructure with leading-edge software applications and high-quality lab equipment for offering best-of-breed services. Additionally, Vimta needed to acquire the proper controls for processes, data security and audit trails so that its experiments would consistently meet the strict criteria that international customers have for outsourcing providers.

At its new facility, Vimta wanted to implement a networking solution that would improve

employee collaboration, reduce communication cost, allow users to access centralized information and enable compliance with the end customers' legal, regulatory, patent and approval guidelines, such as the Health Insurance Portability & Accountability Act of 1996 (HIPAA) and the Sarbanes-Oxley Act of 2002 (SOX).

## Network Solution



Cisco worked with its partner, IBM for implementing a network infrastructure based on the above logical network diagram. The implemented network infrastructure solution was logically divided into five broad categories:

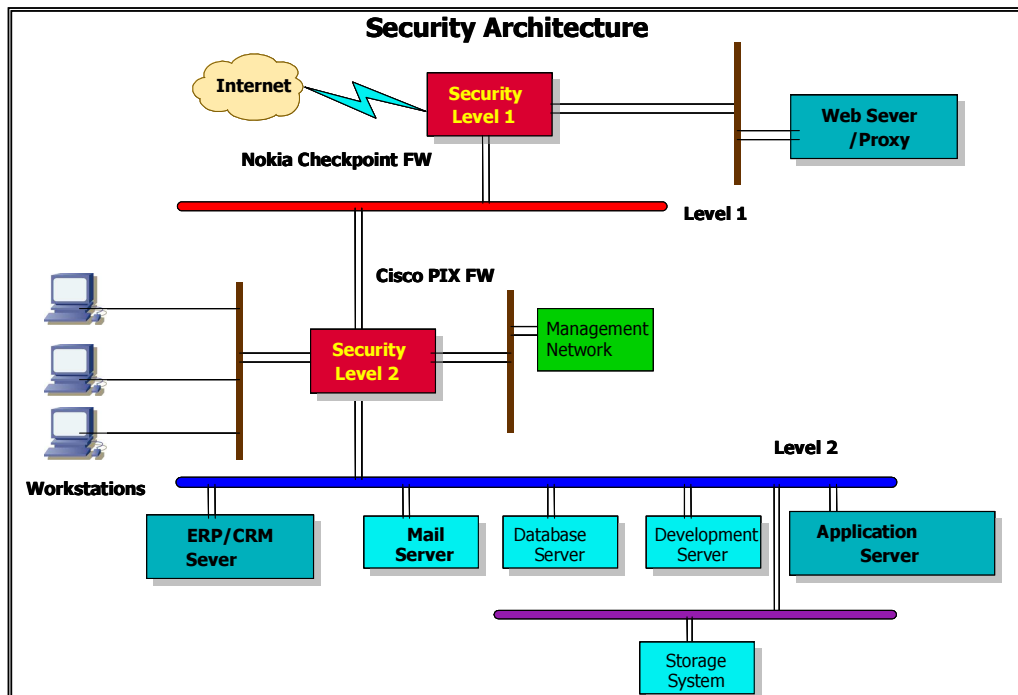
- Switching Solution
- Routing Solution
- Security Solution
- IP Telephony Solution
- Wireless LAN Solution

### Switching Solution

The Switching layer consists of two Cisco 6513 switches with Layer III Capable Supervisor Engine 720 and redundant power supplies. These switches are configured with Gigabit Ethernet ports based on both Fiber and UTP for access connectivity. All internal and external networks will be connected to the switches by creating Virtual LANs (VLANs).

### Routing Solution

This layer comprises of one Cisco 3845 Mid-Range enterprise class router which provides Internet and Inter-office (Intranet) WAN connectivity to the new premises of Vimta Labs. In addition this router is configured with Content Caching engine module to cache frequently accessed internet content into the in-built 40 GB hard disk drive and access the internet only for updates. The router is also configured with analog modem module for Remote Access Server (RAS) functionality that can be used for providing PSTN dial-up based remote access connectivity to the corporate network for the organization's mobile executives. It has inbuilt VPN accelerator card to facilitate secure encrypted VPN access to the corporate network.



### Security Solution

The above diagram depicts the security architecture for Vimta Network security infrastructure requirement.

The security layer consists of Cisco PIX firewalls in a redundant and failover capable configuration at different segments in the network and Cisco Intrusion Detection System (IDS) for intrusion detection and prevention. The firewalls and IDS services module reside in the core switches and connect using Fiber and UTP based gigabit Ethernet connectivity respectively available on the core switches. The firewall has security policies set, based on which every incoming and outgoing packet is inspected and unauthorized access prevented. The VPN/Security Management Software (VMS) delivers and manages security policies on the firewall and IDS. This software provides standard and customized network security reports to the management.

### IP Telephony Solution

IP Telephony solution for Vimta Labs is based on the Cisco MCS Server with Cisco Call Manager software 4.1 for 1000 IP Phone users.

Since the network design is based on a centralized architecture, the IP Phones can connect anywhere on Vimta's network using gateways / gatekeepers, including international locations.

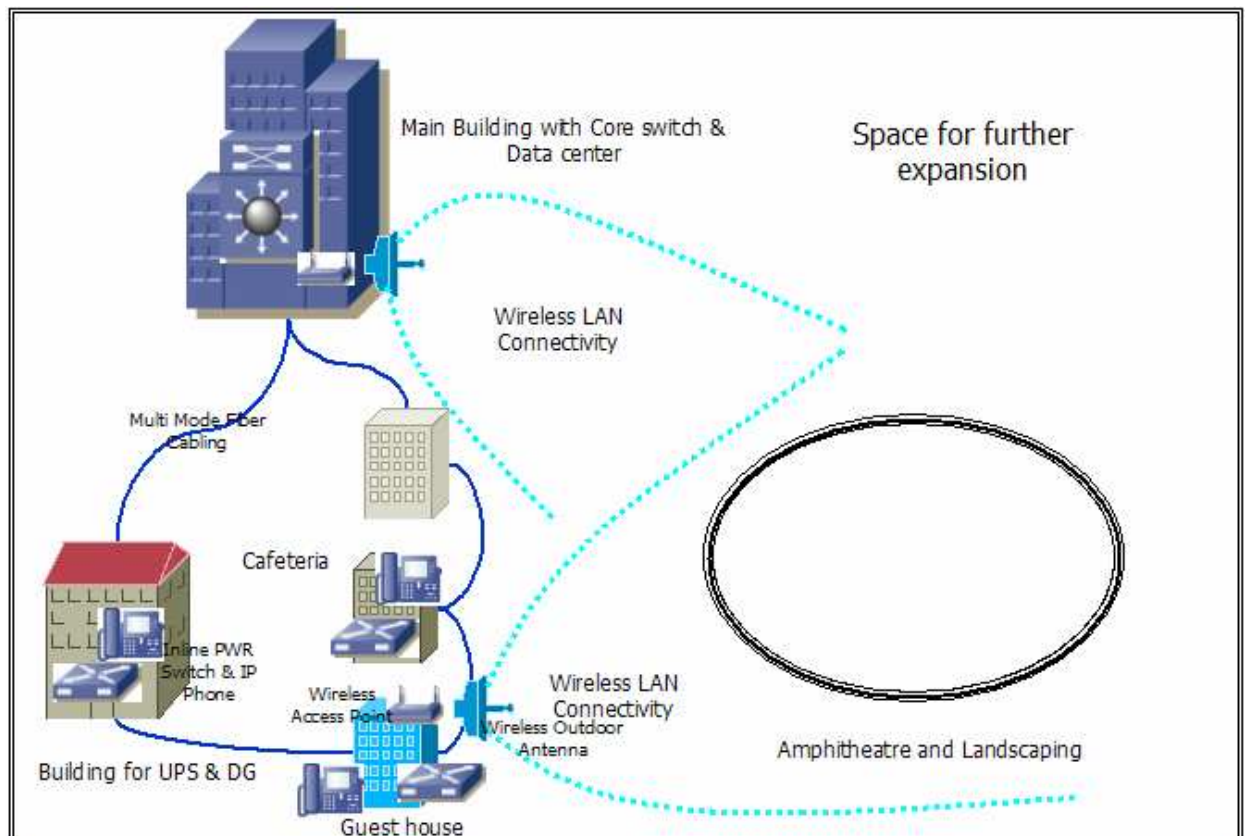
Cisco Unity 4.0 is deployed in the IP Telephony solution where it integrates with the Lotus Domino e-mail messaging server for providing voice messaging and Unified Messaging feature. The IP telephony solution also has audio conferencing facility and Cisco VT Advantage for point-to-point video call functionality.

### Wireless LAN Solution

Cisco implemented a Wireless LAN solution based on the IEEE 802.11g standard offering 54Mbps data throughput. The entire campus is equipped with Cisco 1200 series wireless access points (WAP) positioned at strategic locations for providing Wireless LAN coverage at every nook and corner of the Vimta campus. The WAP's coupled with high gain antennas ensure coverage near the auditorium as well as near the cafeteria. Advanced roaming option configured on the WAP allows the user to seamlessly switch between one WAP to another without losing connectivity.

The solution uses Cisco EAP-Fast technology, which allows users to securely connect to the backend infrastructure. EAP-FAST provides protection from a variety of network attacks, including man-in-the-middle, authentication forging, weak IV attack (AirSnort), packet forgery (replay attack), and dictionary attacks. EAP-FAST is based on 802.1x based standard with support available on a variety of operating systems.

Wireless LAN connectivity in the campus



### Business Value

“With our processes now running on state-of-the-art IT infrastructure, we have taken a significant step towards achieving our goal of being recognized among the Top Ten contract research and testing organizations in the world by the year 2010. Our new facility is powered by Cisco’s network backbone and the wireless, security and IP telephony solutions have e-enabled our entire business functioning, thereby helping us offer world-class service standards to customers around the globe,” said **Sireesh Chandra, Deputy Manager – IT, Vimta Labs.**

Commenting on the deployment, **Jango Dalal, President & Country Manager, Cisco Systems** said, “With a robust and secure foundation in place, this IP-based network can now be scaled up to accommodate an increasing number of users and more applications can be added on as Vimta aligns its business functions along this common, converged architecture.”