<u>Case Studies- Network Infrastructure- LAN</u>

Enhancement of Network Infrastructure based on Best Practices

Client Background

Our client is a leading financial consulting and accounting firm providing services to major Corporate Clients in India. The organization is headquartered in Mumbai, India, with offices in New Delhi and Pune and employs over 65 people all over India. The organization is quality -conscious company and their functioning is in lines of international standards and is in the process of obtaining certification.

Existing System

- ➢ P2P LAN Architecture connected to Unmanaged switch
- ➢ Use of Broadband Internet
- ➢ Three servers used for critical applications and day to day functioning of the organization
- ➢ Forty five machines using Windows as Operating System with Service Pack 2 installed
- ➢ Printers used as shareware
- ➢ Open source Antivirus
- ➢ Remote connectivity to network

Requirement

The client wanted to audit their Information Systems including Network Infrastructure based on best practices. They have a setup approximately 1200 sq. feet facility with necessary LAN infrastructure to accommodate its growing business. The following were their requirements:

- ➢ High Availability
- ➢ Physically separate Data Facilities Management Networks
- ➢ Ease of Management and Trouble-Shooting of Network Infrastructure
- ➢ Network Infrastructure Disaster Recovery Plan

Purpose

- ➤ Obtain reasonable assurance about existence of effective IS Controls and effectiveness of internal controls subject to audit observations
- ➤ Ensure and identify adequate internal controls exists in Operating Systems, Applications and other systems as per Information Systems framework
- ➤ Assess adequacy of documented IT policies and procedures viz. User Management, Password Management, Change Management, Configuration Management, Back up Management and Business Continuity as implemented within the organization
- ➤ To assess limited areas of Electronic Data Processing general controls environment
- ➤ Implementation of Information Security Policy and relevant risk mitigation tools to protect and minimize tangible and intangible asset losses

The Solution

Our methodology was to first understand the existing Network setup including threats and vulnerabilities in network infrastructure components:

- ➤ Network Topology and Architecture
- ➤ Broad overview of Applications, criticality and performance
- ➤ Understand the Geographical Distribution of Resources and Employees
- ➤ Understand the Information Flow

As per our assessment we found that company had 3 separate servers (with one server directly connected to Internet) connected by 2 Mbps shared WAN Links. Operating Systems used were that of Windows, and applications used were basically Accounting and Office Automation tools with open source Anti virus. We adopted a structured approach by performing the following:

- ➤ System Study
- ➤ Data Analysis
- ➤ Design Documentation

We recommended following solutions

- ➤ Network Topology, Design with Network Diagram and documentation
- ➤ Guidelines for Structured Cabling Infrastructure
- ➤ Guidelines for Active Switching Equipment Selection
- ➤ Cable Routing and Raceway Layout's
- ➤ Rack Elevation and Layout Diagrams
- ➤ Environmental Specifications for Distribution Frame Rooms and Server Rooms
- ➤ Security Solutions for Servers, deployment of independent firewall integrated with UTM device

Conclusion

The organization has deployed and implemented our solution in an effective and efficient manner thereby mitigating and minimizing their operational, systemic and security risks, vulnerabilities and threats. The organization is in a position to provide best services to all its internal and external customers, thereby gaining competitive edge over its peers.

Key Achievements:

- ➢ Increase in customer base
- ➢ Greatly simplified data gathering, reporting process
- ➢ Increased profitably while lowering prices
- ➢ Better AV & Firewall functionality and features

For more information contact

Abhaya Herika Consultants

302, Matruchhaya, 378/80,
Narsi Natha Street,
Mumbai – 400 009
Office Tel: +91 22 2341 0527
Cell: +91 93235 67628 / 99303 31337
Email: dsdoshica@gmail.com
        sanjaysrao@gmail.com