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## Skill Set

- 16 years in Enterprise Class InterNetworking Design / Configuration Specialist – LAN/WAN Networking and Advanced Computer Systems Technology. Network & Computer advanced troubleshooting skills on both hardware and software problems
- Network Design Architect, Master Engineering, Management & Training
- Design, Implementation of High Volume E-commerce Web Sites, Complex Voice / Data Networks, T1, DS3 Frame, ISDN-PRI, SONET, ADSL, ATM- Mega Central, CPE & Voice Data Equipment, VoIP/Frame, and VLANs.
- Enterprise Security Specialist – Internet & Internal LAN/WAN Firewalls, Security Assessments, Audits, Policy Creation Network Anomaly Analysis, VPN / Remote Access Implementation

## Hardware

- Cisco Routers 7000, 3600, 2600, 1700 series and Bay/Nortel Series
- Switching – Cisco Catalyst 6000, 4000, 3500, 2900, Nortel/Bay, 3Com
- Windows NT/2000 Server & Workstation 3.5 / 4.0
- Workstation: DOS / Windows 95/98/NT/2000/XP
- Terminal Server – Citrix Winframe
- WAN Systems - T1, DS3, Frame, VPN & Point to Point Systems, ISDN, DSL, Cable
- Network printers and print servers
- VPN (Virtual Private Networking) Server & Client
- Internet Firewall & Proxy –Cisco / Checkpoint / BorderManager

## Software

- Microsoft, Novell & UNIX Servers, Microsoft BackOffice Servers, MS Windows O/S
- Microsoft NT4.0/2000 Server Products, Exchange, ISA, IIS, SMS
- SNMP; TCP/IP; WINS; DNS; DHCP, Active Directory - setup & configuration, troubleshooting, advanced functionality of
- Directory Services (advanced NDS implementations)
- Cisco Works, HP OpenView
- Access Solutions (Shiva, RAS, Netware Connect)
- Novell NetWare ver. 3/4/5
- Anti-virus Software
- Symantec Ghost
- Visio - Network & Systems, Microsoft Office 2000 packages

## Other

- Design, justify, implement and maintain clustered WinNT & SQL Servers for local & remote users
- Develop & implement disaster recovery plans
- Excellent verbal and writing skills
- Project management
- Traffic & Application Analysis, Load Balancers
- Trainer - Networking / Cisco / Microsoft

## Certifications

- **CCNP** - Cisco Certified Network Professional
- **CCDP** - Cisco Certified Design Professional
- **CCNA** - Cisco Certified Network Associate
- **CCDA** - Cisco Certified Design Associate
- **Cisco** – Wireless LAN Certified
- **Cisco** – **ICRC, ACRC**
- **MCSE** - Microsoft Certified Systems Engineer
- **CNE** - Certified Novell Administrator

Project -  
Portfolio**Siemens ILG**

Network Infrastructure design of Automated Vehicle Locator system for various Transit Authorities.

**Network – Production Environment**

Production environment depends on the size of Transit Authority.

A typical environment may have Cisco/Nortel Layer 3 Switches at the core Gig Backbone, NT Server Clustering and other high availability solutions, NAS / SAN devices,

Wireless LAN LEAP and WDS

Routing protocols OSPF, RIP, Static

WAN Circuits - Multiple T1s, Frame, SONET, Point-to-Point Wireless, and VPNs

Internet connectivity on T1s – DS3 with HSRP & BGP

PIX/ Checkpoint Firewall

**Management Tools** - Castle Rock SNMPc, Cisco Secure ACS, Cisco Works

**Responsibilities**

Infrastructure redesign architect and installation support

Wireless LAN design for outdoor implementation of 2000 plus clients including LEAP and WDS (Wireless Domain services)

Created hardware specs and purchase support

Design and implement multi-layer security, ACL, IDS, Content Filters

Determine network operations policies.

Configuration installation and testing.

Implement and maintain intrusion detection at network and server levels

Designed for 99.97% uptime

Stage implement and test fully redundant core and Internet access infrastructure

Evaluate network problems, develop problem management procedures

Deliver test and procedures for network hardware and software.

Training to client staff

***Core Redesign – Major International Data Management Center***

Infrastructure redesign and installation

Migration of Nortel 8500 Core to a new Cisco 6500 based core.

**Network – Production Environment**

Dual Cisco 6513s (dual Sup III, SFM 2, and PS) at central site

Tiered 6509s at remote locations as distribution switch

Gig Backbone

Layer 3 switching and routing,

OSPF, ASLB, and Gig Ether channel link for core redundancy

Circuits - Multiple T1s and 100 nodes Frame circuits terminating at central site.

2 tier DS3 to Internet with HSRP and BGP

Checkpoint Firewall,

**Management Tools** - Cisco Works, HP OpenView

**Responsibilities**

Infrastructure redesign architect and installation support  
Creating hardware specs and provided purchase support  
Migrate initial Nortel 8500 core to a new Cisco 6500 based core.  
Configuration Installation and Testing.  
Implement and test fully redundant core and Internet access infrastructure  
Design and implement multilayer security, ACL, IDS, Content Filters  
Implement and maintain intrusion detection at network and server levels  
Designed for 99.97% uptime  
Determine network operations policies.  
Evaluate network problems, develop problem management procedures.  
Deliver test procedures for network hardware and software.

***National Education Web Based Training & Testing Center Rollout (ACT)***

24 Plus months project as Network Architect

**Network – Production Environment**

2 tier DS3 to Internet with HSRP and BGP  
Nokia Checkpoint Firewall, VRRP,  
VPN Concentrator  
Load Balanced Internet Servers and Backend Databases  
ISS IDS  
Remote Centers (250-500) connected over VPN to Central Site.  
Remote site Internet connectivity varies from DSL, Cable, T1, DS3, and Wireless.  
Remote Systems consists of High end Server with DRAC or ERA on NT /Win2000  
Proctor station and many Client workstations with different Os s'

**Management Tools** – CheckPoint Firewall Management, CA, ERA /DRAC

**Responsibilities** -Liaison with client Remote centers Network Managers to connect with the Testing training Center. Problem resolution while install. Network Architectural re-designs. Final authority on Network design issues and Network related problem resolution.

***World Trade Organization***

**Responsibility** Design Architect

Designed the Enterprise Infrastructure for the Annual Summit Conference in Doha, Qatar. High profile international event required full redundancy & fault tolerance with multi-layer security and IDS.

**Networking Internet Connectivity & DMZ** – utilizing redundant E1 connections  
Dual Cisco 2600s Routers with full BGP, Cisco PIX Firewalls with failover, Cisco Cache engine, dual Catalyst 3500 Enterprise Switches & Packeteer Packet Shaper.

**Core Network & Production Environment**

Cisco Catalyst 6500s with IDS, Dual Cisco 2600s with HRSP for remotes, NAS, Win2000 servers,

**Remote Locations**

Cisco 2600s, 3500s for distribution and access layers  
Secondary NAS, Cisco Cache Engine, and IDS

**Management Tools** - Cisco Works,

***Priceline.com***

Project to set-up a subsidiary Priceline.Com web house club and to integrate it with the existing Priceline.com. (a high Volume E-commerce site)

**Networking Internet Connectivity & DMZ**

Dual Cisco 7500 Core Routers with HSRP & IRGP, Cisco 3500 Enterprise Switches  
Cisco PIX Firewalls with dual failover

Dual Cisco Cache engines

Circuits Dual OC3 with EBGp 4 from hosting company to Priceline  
Frame, NNI to Priceline call centers

Redundant Frame, T1 circuits to credit card authorization vendors  
ISDN dial backups

**Network – Production Environment**

Catalyst 5500s with RSM

Dual Cisco Local Directors for server farm load balancing

**Server Back-end**

WinNT w/IIS - Designed to easily scale to 120 balanced production servers

**Management Tools** - Cisco Works, HP OpenView

**Responsibilities**

Assist in the infrastructure design

Creating Hardware Specs and purchase support

Implement and test fully redundant hosting infrastructure

Design and implement multi-layer security

Implement and maintain intrusion detection at network and server levels

Designed for 99.97% uptime

Connectivity to authorization vendors

Configuration Installation and Testing.

***Frame Relay WAN and VOIP /Frame for Financial Institutions***

Design, Installation and Maintenance of Central site and 15 plus remote sites, for Data Communication, Telebanking, Voice over IP.

**Hardware**- Central site Cisco 3660, 3640, Catalyst 5000, Adtran TSU 600, 120  
Remote Site Cisco 2600, TSU120 and Catalyst 2900.

**Circuits** - 2 T1 at Central site, 12 Long distance

24 VoIP Circuits to the remote site and Integrating those circuits to the Central and remote PBXs' 15 plus Data Circuits to remote site carrying Voice over IP and confidential financial data.

***Medical Facility WAN***

Design, installation & testing of central site to 16 remote sites and hardware. Central Site utilized Catalyst 5000 w/RSM & Cisco 3600, WinNT 4.0 / Novell. Remote Sites utilized Cisco2600, Catalyst 2900, and Win2000 workstations. Utilized Frame

***Redundant, Secure Internet Connection for Web Hosting Company***

Design and implementation of T/3s to two separate Internet Service Providers. Installed dual Cisco 7140s with BGP and HSRP for redundancy. Future plans include additional PIX Firewalls for enhanced security, Local Directors and 6500 series switches with ASLB for server load balancing and high speed backbone switching. Design accommodates specifications for a second geographic redundancy site and potential mullet-site load balancing.

Experience	<p>Y1 Solutions, LC          Chief Technical Officer / Vice President          Enterprise Network Architecture Design / Configuration Specialist for Cisco 2600, 3600, 7000 series routers, Catalyst 4000, 5000, 6000 series switches and PIX Firewalls. Design and implement enterprise solutions for Windows, Novell &amp; UNIX Servers, traffic analysis, load balancing, packet shaping, wireless LAN &amp; site-to-site, data/voice over IP/Frame, VPN, VLAN, CPE and Voice Data Equipment.</p> <p>Networking Project Manager / Coordinator for projects involving complex voice / data networks utilizing T1, DS3, Frame, ISDN-PRI, SONET, ADSL, ATM-Mega Central.</p> <p>Major Clients includes: Siemens ILG, NCS Pearson, ACT, WTO (World Trade Organization), colleges, software development firms, financial institutions &amp; banks, and E-commerce web sites.</p> <p>Citation Systems Group / Accel Systems Group          Cedar Rapids, IA          Chief Technical Officer / Vice President          Day-to-day management of company's technical team (networks, systems and software development). Maintain quality business standards and employee motivation. Technical business solutions with customers and vendors. Implemented technical business strategies.</p> <p>Senior networking architect, project management and project coordinator involving complex voice data networks. Networking design / configuration specialist for high-end Cisco /Bay Routers, switching products, firewalls. 1600, 2600 3600, 7000 series routers and Catalyst 4000, 5000, 6000 series switches, PIX Firewalls, load balancers, CPE and voice data equipment. Microsoft Novell &amp; UNIX Servers.</p> <p>In house trainer for internetworking, Cisco, Microsoft technical support for company's engineers and technicians.</p> <p>Major clients include; Priceline.Com, APAC, NCS, financial institutions and bank, medical clinics &amp; hospitals and E-commerce web sites.</p> <p>Hamilton College CR Iowa          Part-time Instructor Networking /MCSE course          Part-time Faculty for Certified Systems Engineer Course          Number of Students Trained – 60 plus</p> <p>IBM          Networking Consultant at McLeod USA CR – Iowa          Develop procedures for network support and problem resolution.          Research MIB status on all routers and CAT 5 and LS1010 with Netview.          Create database of MIBs for IDC Routers, CAT5's.          Day to day configs and installation assistance for 2500s, Cisco 7000s, LS1010, CAT5000.          Customize Netsuite, Develop hardware and software test procedures,          Deliver Test and Procedures for Network hardware and software.          Develop escalation procedures, Define Helpdesk requirements.          Determine the number of referred trouble calls.          Helpdesk problem resolution.          Define NMC/NOC requirements, Determine network operations policies.          Evaluate network problems, Develop problem management procedures.</p>	<p>Cedar Rapids, IA          2001 to Present</p> <p>1998 to 2001</p> <p>1999 – 2001</p> <p>1997 – 1998</p>
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Perform root cause analysis.  
 Evaluate the McLeod Microsoft NT Network and servers.  
 Suggest the optimal solutions for the Microsoft Network.  
 Capacity planning for Microsoft network.  
 Performance tuning for Microsoft network.

Accel Systems Ltd. India

Co-Founder & Director Operations 1991 - 1997  
 Network designing (LAN/WAN), System Integration, Implementation of LAN/Campus Networks, Enterprise Networks, setting up Email networks, Intranets, Mail gateways, Interconnecting heterogeneous systems and networking devices.  
 Technical Support and Training for field personnel, Consultant Services on Networking, Project management, business negotiations with customers, interactions with vendors.  
 Business Management, Employee Management, P&L statement, Business Analysis and planning, Maintain quality business standards.

Number of Engineers/Technicians Reporting - 75

HCL HP Ltd. India

Sr. Customer Support Engineer 1987 - 1991  
 Hardware and Software Service support for HCL's Micro Mini and Apollo CAD Workstations & Server Computers.  
 Attending break down calls, Installation of Computer Hardware, Networking Hardware (Arc net Ethernet and Token ring networks) Communication Devices  
 Installing and supporting the following Operating Environments CP/M, DOS, XENIX, UNIX, ELSII, WINDOWS 3.0, NETWARE 2.2/3.11 APOLLO DOMAIN AEGIS (CAD O/S)  
 Awarded "BEST ENGINEER" for Year 1991.

#### Education

Diploma in Electrical Engineering 1984 -1987  
 B-Tech in Electrical Engineering (NC)