

Koushik Roy

Professional Website

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PROFESSIONAL SUMMARY

CCNA-certified and CCNP-trained Network Engineer with 3+ years of hands-on experience in Enterprise LAN/WAN and ISP environments. Skilled in **Cisco routing and switching**, including **Cisco ASR 9906, Nexus 9K, and ACI/APIC, Cisco 2600/3600/3700/3850/4500/9300** series routers & switches. Proficient in **OSPF, EIGRP, BGP (iBGP/eBGP), VLANs, STP/RSTP/MSTP, EtherChannel, ACLs, VRRP, and MPLS fundamentals**. Experienced with monitoring and troubleshooting tools such as **Cisco DNAC, Cisco Prime, Netcool, SolarWinds, Wireshark**, and ServiceNow. Strong ability in handling **P1/P2 incidents**, performing configuration changes, creating MOPs, maintaining SLAs, and ensuring secure, stable, high-availability network operations through effective coordination with **L2/L3 teams and ISPs**.

WORK EXPERIENCE

Teleindia Networks | Network Engineer | Bangalore, India

October 2025 – Present

Providing core network support within an **ISP** environment, focusing on high-end Cisco **data center** and service provider equipment and advanced routing protocols.

- Configure, maintain, and troubleshoot **Cisco routers and switches**, including **Cisco ASR 9906, Nexus 9K (9300/9500)**, and **Cisco ACI fabric with APIC controllers**.
- Manage core **Layer 2 & Layer 3** technologies: **VLANs, Inter-VLAN routing, STP/RSTP/MSTP, EtherChannel, HSRP, VRRP, GLBP**, and trunking.
- Handle **L1/L2 troubleshooting** for packet loss, network slowness, latency, throughput issues, interface errors, and routing problems.
- Perform **configuration changes**, IOS/firmware upgrades, backups/restores, and version control for production network devices.
- Monitor network performance using **Cisco DNAC, Cisco Prime, Netcool, MRTG, Cacti**, and APIC dashboards.
- Conduct daily health checks: interface/SFP status, CRC/input drops, CPU/Memory utilization, NTP, SNMP polling, syslogs, alarms, and environmental checks.
- Troubleshoot routing protocols: **OSPF, EIGRP, BGP (iBGP/eBGP), static routing, VRFs, MPLS L3VPN**, and policy-based routing.
- Implement network access and security controls such as **ACLs, DHCP Snooping, Port Security, VLAN ACLs**, and device-level hardening.
- Provide technical guidance to field engineers and support execution of **planned changes, migrations, and maintenance activities**.
- Participate in **Severity P1/P2 bridge calls**, acting as a central focal point for coordination, impact analysis, and rapid incident restoration.
- Maintain detailed documentation: updated **network diagrams, topology maps, port maps, inventory sheets, change logs, device backups**, and **RCA reports**.
- Collaborate closely with internal teams (L2/L3 Engineering, Security, DC teams) for escalations, configuration validation, and post-change testing.

IBM | Network Engineer | India

July 2022 – September 2025

Provided comprehensive network support, managing Enterprise LAN/WAN infrastructure and coordinating with senior teams and ISPs to ensure network stability and performance.

- Performed end-to-end troubleshooting for enterprise **LAN/WAN** environments ensuring minimal downtime.
- Configured and supported **Cisco routers & switches** (2600, 3600, 3700, 9300, 3850, 4500 series).
- Managed **VLANs, Trunking, STP/RSTP/MSTP, VTP, EtherChannel, DHCP, NAT**, and Layer 3 routing configurations.
- Troubleshot **OSPF, EIGRP, BGP, RIP, static routes, VRFs**, and other enterprise routing architectures.
- Ensured high availability by handling **HSRP/VRRP** incidents, redundancy validation, and performing failover testing.
- Analyzed network issues using **packet captures, syslogs, SNMP monitoring**, and tools like **Wireshark**.
- Implemented security controls including **ACLs, prefix-lists, route-maps, AAA, IPS/IDS fundamentals, Port Security, Private VLANs**.
- Supported **Palo Alto, FortiGate, and Cisco ASA** firewalls for policy review, log analysis, and connectivity checks.
- Prepared daily/weekly/monthly reports on **network uptime, device health, link utilization, and incident summary**.
- Assisted in hardware deployments: **routers, switches, access points, patch panels**, and LAN expansion activities.
- Maintained accurate **change management documentation, topology diagrams, backup repositories, inventories, and RCA reports**.
- Actively participated in **planned maintenance, upgrades, migrations**, and implementation of new network components.

SKILLS SUMMARY

- **Networking Protocols:** TCP/IP, OSPF, EIGRP, BGP (iBGP/eBGP), ISIS (Basics), MPLS L3VPN (Basics), Static Routing, RIP, VRRP, VLANs, STP/RSTP/MSTP, Trunking, EtherChannel (LACP/PAgP), NAT/PAT, DHCP, DNS, Subnetting, IP Addressing, OSI Model.
 - **Hardware & Platforms:** Cisco ASR 9906 Routers, Cisco Nexus 9K Series (9500/9300), Cisco ACI Fabric, APIC Controllers, Cisco Routers/Switches (2600/3600/3700/3850/4500/9300 series), Palo Alto & Cisco ASA (Basic), FortiGate (Basic).
 - **Network Management & Tools:** Cisco DNAC, Cisco Prime, Netcool, MRTG, SolarWinds, Cacti, ServiceNow, BMC Remedy, Wireshark, PuTTY, MOP Creation, Performance Monitoring, TAC Coordination.
 - **Tools & Simulation:** Cisco Packet Tracer, GNS3, EVE-NG, Cisco IOS Upgrades/Licensing, Backup/Restore, Network Monitoring, Troubleshooting Tools, Packet Capture Analysis.
 - **Operating Systems & Cloud:** Linux (Ubuntu), Windows Server, Azure (Basics), Python (Network Automation Basics – Netmiko/Paramiko concepts).
 - **Soft Skills:** Communication, Team Leadership, Problem-Solving, Client Coordination, Incident Management (P1/P2), Documentation (Topology Diagrams, RCA, Change Logs).
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PROJECTS

Small Office Home Office Network Design & Implementation | [LINK](#)

- Built a complete **LAN** infrastructure using **Cisco** devices, including routers, switches, and wireless access points.
- Configured **VLANs** and **Inter-VLAN** Routing for secure departmental communication.
- Set up **DHCP** and conducted **network monitoring** to ensure **LAN/WAN** optimal performance and connectivity.
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University Campus Network Design & Implementation | [LINK](#)

- Designed a multi-campus **WAN** network, implementing **OSPF** for internal routing and **Static Routing** for external paths.
 - Configured **VLANs** across **Cisco** switches for department segmentation and deployed **Inter-VLAN Routing**.
 - Implemented **DHCP** services and applied security policies, followed by comprehensive **network testing and troubleshooting**.
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EDUCATION

Dr. B. C. Roy Engineering College

Master of Computer Application (MCA); CGPA: 8.18

Durgapur, India

June 2021 - July 2023

Michael Madhusudan Memorial College

Bachelor of Computer Application (BCA); CGPA: 8.56

Durgapur, India

June 2018 - August 2021

CERTIFICATES

CCNA (Cisco Certified Network Associate) | [VIEW CERTIFICATE](#)

March 17, 2025

- Routing & Switching, VLANs, OSPF, EIGRP, BGP, Subnetting, Troubleshooting

CCNP (Cisco Certified Network Professional) | TRAINED

Feb, 2024

- Advanced routing, switching, and troubleshooting for complex enterprise networks.

Network Addressing and Basic Troubleshooting (Cisco Networking Academy) | [VIEW CERTIFICATE](#)

Dec 20, 2023

- IPv6, neighbour discovery, network troubleshooting

Networking Basics (Cisco Networking Academy) | [VIEW CERTIFICATE](#)

October 09, 2023

- TCP/IP, OSI Model, network security, router/switch configuration.