

Ming Choi

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SUMMARY

Service provider network engineer with nine years of progressive experience across Metro Ethernet, IP MPLS, optical transport, broadband, and DOCSIS environments. Leads complex **engineering operations**, critical service deployments, major outage response, circuit mitigation, routing optimization, and capacity planning across Cisco, Juniper, Ciena, and Nokia platforms. Applies **Segment Routing**, BGP, MPLS RSVP and LDP, OSPF and ISIS, OAM and QoS, CRAN, CMTS, WAVE, and Dark Fiber expertise to improve reliability and service continuity. Converts network evidence into engineering standards, operational procedures, systems documentation, and **FCC compliant Root Cause Analysis** packages. Mentors engineers through workshops and outage reviews, coordinates cross functional resources, and communicates clearly with customers and stakeholders during high impact events. Ready to contribute sound judgment, practical leadership, and dependable network operations.

EXPERIENCE

Principal Network Operations Engineer

January 2024 - Present

ApexWave Communications

Edison, NJ

Leads engineering operations for a multi market carrier network supporting Metro Ethernet, IP MPLS, optical transport, broadband, CRAN, and CMTS services. Owns outage coordination, traffic engineering, **capacity planning**, deployment governance, and engineer development across Cisco, Juniper, Ciena, and Nokia platforms.

- Directed major outage response across **routing**, transport, access, and service teams, restoring customer connectivity safely.
- Engineered multi device circuit moves with **BGP**, Segment Routing, MPLS, and service validation during failures.
- Converted traffic growth analysis into capacity plans supporting resilient expansion across core and aggregation paths.
- Governed **CRAN** and **CMTS** deployments through standards, implementation controls, and post change verification.
- Mentored six network engineers through outage reviews, design workshops, and practical **troubleshooting** labs.

Senior Service Provider Network Engineer

June 2021 - December 2023

Garden State Fiber Systems

Newark, NJ

Designed and operated carrier services across Metro Ethernet, MPLS, routing, and optical transport environments. Led escalated troubleshooting, **customer communications**, regulatory documentation, urgent circuit migrations, procedure development, and **technical training** for service teams.

- Designed carrier changes integrating **Cisco** and **Juniper** routing with Ciena optical transport services.
- Resolved escalated BGP, MPLS RSVP and LDP, OSPF and ISIS, OAM and QoS incidents.
- Produced **Root Cause Analysis** packages with timelines, causes, corrective actions, and regulatory evidence.
- Sequenced urgent circuit migrations across multiple network elements, limiting customer disruption during changes.
- Created operating **procedures** and training sessions before production adoption of new network tools.

Network Engineer III

August 2019 - May 2021

Keystone Carrier Solutions

Philadelphia, PA

Supported lifecycle improvements for carrier Ethernet, routed IP, and **L1 optical** services serving enterprise and wholesale customers. Combined routing, transport, telemetry, documentation, and capacity analysis to improve fault isolation and service reliability.

- Configured Cisco and Juniper routing for BGP, MPLS, and OSPF and ISIS services.
- Used telemetry, OAM and QoS data, interface statistics, and alarms to isolate service degradation.
- Maintained **systems engineering documentation** covering topology, dependencies, standards, troubleshooting, and maintenance.
- Evaluated aggregation capacity trends and escalated upgrade recommendations before service constraints emerged.
- Troubleshoot **Ciena WAVE** and **Dark Fiber** services with transport engineering partners.

Network Operations Engineer

October 2017 - July 2019

Hudson Broadband Engineering

Jersey City, NJ

Monitored routed, Ethernet, optical, and DOCSIS infrastructure supporting business connectivity and broadband traffic. Progressed from supervised incident response toward independent event ownership through structured troubleshooting, maintenance execution, and customer impact analysis.

- Monitored service provider networks carrying business connectivity and broadband traffic across multiple infrastructure layers.
- Diagnosed routing and access incidents using telemetry, alarms, procedures, and escalation practices.
- Executed approved Cisco and Juniper changes, then verified routing, interfaces, and service health.
- Supported **Arris Modems** and CMTS troubleshooting by correlating access symptoms with network conditions.
- Maintained incident records with timelines, affected services, evidence, and restoration details for review.

PROJECTS

Regional Carrier Capacity Program 📅 2025

Built a regional capacity planning program using traffic trends, aggregation utilization, routing evidence, and infrastructure forecasts. Findings supported resilient expansion decisions and clearer investment priorities.

Major Outage Mitigation Framework 📅 2024

Created a repeatable outage mitigation framework for circuit moves, cross team coordination, customer updates, service validation, and Root Cause Analysis preparation.

LEADERSHIP & AWARDS

- Technical mentor for early career network engineers, 2024 - Present.
- Facilitator for carrier network troubleshooting workshops, 2025 - Present.

EDUCATION

Bachelor's Degree in Computer Engineering

2017

New Jersey Institute of Technology GPA: 0

Newark, NJ

Coursework: Computer Networks, Digital Systems, Telecommunications, Network Security

CERTIFICATIONS

- Cisco Certified Network Professional Service Provider 📅 2022
- Juniper Networks Certified Specialist, Service Provider Routing and Switching 📅 2021
- MEF Carrier Ethernet Certified Professional 📅 2023
- Nokia Service Routing Architect Certification 📅 2025

TECHNICAL SKILLS

- **Routing Protocols:** BGP, OSPF, ISIS
- **MPLS Technologies:** MPLS RSVP, MPLS LDP, Segment Routing
- **Network Vendors:** Cisco, Juniper, Nokia
- **Optical Transport:** Ciena, L1 Optical, WAVE
- **Carrier Services:** Metro Ethernet, Dark Fiber, Carrier Ethernet
- **Broadband Access:** DOCSIS, CMTS, Arris Modems
- **Service Platforms:** CRAN, CMTS, Broadband services
- **Operations Analysis:** OAM, QoS, Telemetry
- **Engineering Methods:** Capacity Planning, Troubleshooting, Fault isolation
- **Documentation:** Systems Engineering Documentation, Operating procedures, Maintenance records
- **Incident Management:** Major outage response, Circuit moves, Escalation management
- **Compliance Documentation:** Root Cause Analysis, FCC documentation, Regulatory evidence

SKILLS

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|-----------------------|-------------------|------------------|---------------------------|
| • Network Operations | • BGP | • CRAN | • Circuit Mitigation |
| • Troubleshooting | • MPLS RSVP/LDP | • CMTS | • Customer Communications |
| • Capacity Planning | • Segment Routing | • DOCSIS | • Technical Mentoring |
| • Root Cause Analysis | • OSPF/ISIS | • Metro Ethernet | |

PROFESSIONAL AFFILIATIONS

- Service provider engineering peer group participant focused on routing and transport operations.
- Carrier network knowledge sharing contributor for outage reviews and technical workshops.

LANGUAGES

- English (Native)
- Korean (Proficient)

ADDITIONAL INFORMATION

Work Status : Authorized to work in United States. No sponsorship required.

REFERENCES

AVAILABLE ON REQUEST