

Aditya Kaul

Senior Principal Solution Architect, HPE Networking (Juniper) | addiekaul@gmail.com | Singapore | (+65) 9622-5560 | [linkedin.com/in/adkaul](https://www.linkedin.com/in/adkaul)

Executive Summary

Accomplished and innovative technology leader with over 24 years of experience architecting and deploying next-generation network solutions for top-tier global service providers. Expert in driving the full lifecycle from strategic planning and design to implementation and migration. Proven success in developing customer-centric solutions, leading technical pre-sales, and building key relationships in the APAC market to align technology initiatives with commercial goals. Most recently, Aditya leads at the intersection of AI and networking — architecting AI Data Center (AIDC) fabrics with lossless Ethernet (RoCEv2, ECN/PFC) and GPU-as-a-Service networking, leveraging SRv6 to unify AI Data Centers with the service-provider backbone, and applying agentic AI (LLMs and the Model Context Protocol) to automate network design, documentation and operations.

At HPE Juniper, Aditya is a Professional Services – Principal Solution Architect for SP & Automation Solutions, incubating new solutions specific to the APJ market, Services Enablement, Technology Advisory and scoping, effort estimation, quotation for new technology solutions. Aditya was a notable contributor to Services Intellectual Capital and played a key role in mentoring of new talent within APJ and at an organizational level.

Whilst at Cisco as Advanced Services Solution Architect and Migration Practice Lead, Aditya was responsible for leading fast paced development, deployment and delivery of innovative, customer focused services and solutions for clients across the globe. AT&T, BT-21CN, Savvis, Optus, AIS, PT Telkom, Sprint, Elisa, Netflix, Google were some of the clients where Aditya played a pivotal role.

Core Competencies

Next-Gen Network Architecture	Solution Design & Scoping	Technology Advisory & Consulting
Service Provider (SP) Solutions	Automation & Orchestration	Strategic Migration Planning
RFP Response Development	Pre-Sales Technical Support	Intellectual Capital Development
Cloud & Virtualization (NFV/CNF)	Stakeholder Management	Cross-Functional Leadership

Technical Proficiencies

- **Routing & MPLS:** BGP, MP-BGP, OSPF, ISIS, IPv6, BGP-PIC, RPKI, MPLS (LDP, RSVP, L2/L3VPNs), EVPN (E-LAN/VPWS), Seamless MPLS, BGP Security – RPKI, MANRS, BGP Route Leaking (RFC9234), ASPA.
- **Segment Routing:**
 - SR-MPLS- Node/Prefix/ Anycast-SID, B-SID, Flex- Algo, Color, Ti-LFA, EPE, BGP Prefix-Segment, Twamp-Lite, PCE Delegation/Distributed SR-TE, Express-Segments, BGP – Classful Transport
 - SRv6 -SRH, SRM6 (CRH), uSID, Locator Summarization, Services (uDT2U, uDX2, uDT4/6), SRv6-TE (sBFD/DCSPF/PCE)
 - Migration & Co-Existence – SRMS, SRv6 Interworking, RSVP-FA, LDP over SR-TE, BGP-LU over SRv6 (END.DTM), IPv6 Forwarding
- **Architectures:**
 - Building BGP-based IP Fabrics in large-scale DCs using EVPN-VxLAN.
 - Transport Network Architectures – MPLS/SR-MPLS/SRv6 , Topology Slicing – Flex- Algo, colored SR-TE (Policy), SRv6 Locator/Function bit, Guaranteed Link Slicing
- **Agentic AI:**
 - MCP Server (JUNOS), LLMs (Claude / Claude Cowork, Juniper J-LLM), Prompt & Context-File Engineering, Token/Latency Optimization
 - Agentic AI deliverables – Network Documentation (Design, MOP), Network Assessment/Audit, Network Optimisation and Troubleshooting (RCA).
 - Private / on-prem LLM with a custom agent (Hermes) for secure, air-gapped network assistance.
 - Effective use of agentic AI tooling (Claude / Claude Cowork) across engineering, design and content workflows.
- **AI for Networking / AI Data Center (AIDC):**
 - AI Data Center fabrics – GPU backend networks, lossless Ethernet (RoCEv2, PFC/ECN, DCQCN), rail-optimized Clos, 800G/1.6T fabrics.
 - GPU-as-a-Service (GPUaaS) network slicing and Multipath Reliable Connection (MRC) for high-throughput, low-jitter AI workloads.
 - SRv6 as the unifying fabric – connecting AI Data Centers, GPU clusters and the SP backbone end-to-end (DCI, network slicing, uSID).
- **Automation:**
 - Wan Orchestration / PCE Controller (Paragon, Juniper cRPD -cPCEP), Visualization (BGP-LS) and Telemetry.
 - Virtualized Services-vMX - vPE, vRR – CNF -JUNOS Routing Stack -cRPD
 - Cloud Grade Networking - Docker, cRPD, Contrail.
 - Close-Loop-Automation – Juniper Paragon Automation
- **Vendor Platforms:**
 - **Juniper:** MX, QFX, PTX, ACX, Paragon, Apstra, vMX, cRPD
 - **Cisco:** ASR9000, CRS-1/3, XR12K, ASR1K,7600 Series, XRv9K, CSR1K
 - **Nokia/Alcatel:** SR 7750 Series

Professional Experience

Principal Solution Architect | HPE Juniper Networks | APJ | Oct 2015 – Present

Impact & Achievements:

- Drive Service Provider (SP) solutions for APJ, delivering Technology Advisory workshops and incubating new solutions tailored to regional markets driving YoY growth in services revenue.
- AI-for-Networking and Agentic AIOps for APJ – integrated a JUNOS MCP server (mcp-server-junos) with Claude on a live SRv6 lab and built LLM-driven workflows that auto-generate design documents, MOPs and RCA, materially reducing documentation and troubleshooting effort.
- AI Data Center (AIDC) fabric reference designs – GPU backend networks, RoCEv2 lossless Ethernet (ECN/PFC) and GPU-as-a-Service networking – using SRv6 to unify AI Data Centers with the service-provider backbone.
- Advised XLSMART and regional Tier-1 operators on AI-era transport and AI Data Center strategy; delivered “AI for Networking” technology-advisory workshops across APJ.
- Key Advisory Relationships – Telstra International, XL Axiata (XLSMART), PT Telkom, Optus, Singtel, Airtel and VIL.
- Architected transformational network solutions for carriers including SingTel, Telstra International, Airtel, Jio, Dialog and XL Axiata

Key Initiatives:

- Established strategic partnerships with executives at major telcos, resulting in multi-year engagement contracts
- Designed and implemented Juniper's first production SRv6 network for major telecommunications provider XL Axiata.
- Forged and sustained key executive relationships with major clients (Service Led engagements), including Telstra International, Optus, AirTel, SingTel, Vodafone Idea, XL Axiata, Telkom Malaysia, PT Telkom, VHA (TPG), Taiwan Mobile, UNN and others to position Juniper's products, services and architectural frameworks.
- Key Partner Relationships – Develop joint solutions with Ericsson, SVTech, Commverge and NEC
- Lead pre-sales support, RFP compliance, and Level of Effort (LOE) scoping, collaborating across sales, engineering, and customer teams to develop tailored, region-specific solutions.
- Led a diverse team of Solution Architects across the region (Australia, Japan, Singapore and India) and PIC for Sales (Account/TSA/SE) for professional services presales engagements.
- Collaborate with PLMs to develop key features roadmap (example-MVP for SRv6) and with Services PLMs to introduce new PS offerings (example-SRv6 Architecture Assessment, Automation Assessment, Assurance Audit, Migration Services)
- Cross-Domain and Cross-Theatre Collaboration within PS for building new Solution based Service Offerings.
- Annual speaker at APJ industry forums – Apricot, SANOG, SGNOC, MyNOG, IDNOG, INNOG, Asia TechX; focus evolving from Segment Routing / SRv6 to AI for Networking.
- Represented the Core & Edge Practice at Global Practice, enabling skills development across APAC professional services teams and identifying strategic beachhead customers for new offerings.

Technical Leader | FixStream Networks Inc. | India | Jan 2015 – Sep 2015

- Engineering solutions integrating KVM, Neutron, and VxLAN/EVPN with Juniper vMX and Open Contrail.
- Leveraged Open Daylight (ODL) and BGP-LS for advanced network topology abstraction.

AVP, IP Network Planning | Reliance Jio Infocomm, Ltd. | India | Apr 2014 – Jan 2015

- Played a pivotal role in the IP Network Planning team for one of the world's largest greenfield countrywide LTE deployments.
- Defined the national Internet peering strategy and managed relationships with Tier-1 carriers, OTT players, and CDN providers (Google, Akamai, Limelight).
- Led Design Evaluation of SDN Controller (ODL) and Anuta for Service Orchestration.

Solution Architect | Cisco Systems, Inc. | India (Global Delivery Center) | Apr 2012 – Apr 2014

- Leveraged cross-domain expertise to architect and scope implementation services for global clients, including BT, Optus, PT Telkom, Sprint, Netflix, Du, Mobily, Etisalat and Google.
- Engaged with CxO-level executives to understand business challenges, define project roadmaps, and articulate the value proposition of next-generation network migrations.
- Authored and reviewed customer architecture documents (HLD/LLD) and developed intellectual capital, creating leading practices for competitive migrations.
- Led Architecture Assessments for customers like PT Telkom, Sprint and Technical Lead for Migration Practice CAP customers like AIS, worked with CAP manager to resolve Technical, Product issues and maintain CSAT.

Professional Services Consultant | Juniper Networks | Saudi Arabia & Middle East | Aug 2010 – Mar 2012

- Delivered expert consulting services for designing and supporting complex network architectures for premier customers, including Saudi Aramco, Etisalat, Telkom Egypt, and STC.
- Served as a key architect for the state-of-the-art Saudi Aramco MPLS network, leading the creation of HLD and LLD documentation for migration from Alcatel ATM based network to Juniper's MPLS network.

Technical Leader, Advanced Services | Cisco Systems | India (Global) | Jul 2005 – Aug 2010

- Served as a core member of the Global Advanced Services IP NGN Practice and the CRS-1/IOS XR Tiger Team, driving CRS-1 adoption in key Service Provider markets across the globe engaged in creation of Design and deployment collateral.
- Architected and executed complex migrations of legacy and competitive (Juniper/Alcatel) networks to Cisco IP NGN platforms (CRS-1) for clients such as Deutsche Telekom, British Telecom 21CN, CenturyLink and Vodafone.
- Architected and migrated to CRS-1 and IOS XR- Key Customer Engagements AT&T (US), SAVVIS (US), British Telecom (UK), Ericsson-Eircom (Sweden), REACH (HK), PT INDOSAT (Indonesia), DiGi (Malaysia), Dialog Telekom (SriLanka), Vodafone (Egypt) and DU (Dubai).

Early Career | India | Jun 2001 – Jun 2005

- Held progressively senior roles at **Reliance Communications**, **Tata Communications**, and **SIFY**, building a strong foundation in IP/MPLS network architecture, design, and operations for large-scale data networks.

Patents, Publications & Engagements

- **Patents Filed:**
 - *Apparatus and Method for Providing Device Level Redundancy for Multicast Services using ICCP* (Cisco)
 - *OpenStack with VxLAN Overlay to Underlay Correlation* (FixStream)
- **Publications:**
 - *Leading Practice on Migration of JUNOS based Networks to IOS XR* (Cisco)
 - *Revolutionizing Network Operations with Agentic AI & MCP Servers (Part 1–3)* – technical series on Agentic AIOps with mcp-server-junos, Claude and a live SRv6 lab (LinkedIn, 2025).
- **Public Speaking & Community Involvement:**
 - Regular speaker for 10+ years at APJ Internet & network-operator forums – Apricot, SANOG, SGNOG, MyNOG, IDNOG, INNOG, Asia TechX; focus evolved from Segment Routing / SRv6 to AI for Networking. Selected talks:
 - *SRv6: Deployment & Use Cases* – MyNOG (2024).
 - *Coding Business Logic into the Network through Automation: A Large Tier-1 Case Study* – MyNOG-12 (2025).
 - *Agentic AIOps for Service Provider Networks* – MyNOG (2026).
 - *AI Inferencing & AI Data Center Networking* – IDNOG (2026).
 - Program Committee Member for INNOG-3 & INNOG-4.

Education & Certifications

- **Bachelor of Business Management (BBM)**
- **CCIE - Service Provider #21159** (2008, Expired)
- **JNCIP-SP** (Expired)