

# Kapil Kumar Gupta

131 JP Nagar Bangalore Karnataka | **Cell:** +91 9560102391 **Email:** [kapilgupta.pt@gmail.com](mailto:kapilgupta.pt@gmail.com)

**LinkedIn:** <https://www.linkedin.com/in/kapil-kumar-gupta/>

## Summary

Meticulous Technical Architect and Product owner with 13+ years of experience in Cloud/NFVi/Cloud-Native/Edge-cloud, MANO,

5G Core, MEC, O-RAN, 5GCore, IMS, Edge computing, AIOps, Technology transformation & integration, Kubernetes, Microservices, Analytics, Data Science, AI/ML and Program management. Focused, Continuous learner, Mentor/Coach, result oriented, highly dependable, and detail-oriented solutions architect offering exceptional troubleshooting skills and a talent for developing innovative solutions to unusual and difficult problems. Individual with polished communication skills and drive to influence without authority and leading change from the middle.

## Accomplishments

- Instrumental in building a product line called Edge cloud platform, Building a product from scratch and responsible for nationwide deployment at **900 edge locations** for one of the largest Telecom Service Provider in Europe. This Platform can onboard O-RAN, MEC, FTTH, 5G-Core applications.
- Product Owner and solution architect for Global scrum team to develop the Edge computing platform zero touch automation for bring-up and its life cycle management LCM.
- Drive road-map for extending k8s platform capabilities to support Telco workloads ORAN and 5G-Core workload.
- Technical Guidance to different account teams for customer engagements RFI, RFP, BOM, and POCs (Pre-sales)
- Build an **MVP** using AI/ML that detect anomaly in Kubernetes using SVN, MLP and CNN. Product can generate revenue of **180 K USD/year** considering 10K machines. Product can be integrated to Cloud, AIOps, IOT, Edge computing.
- Strategize the selection of Cloud platform, determined architectural, engineering requirements, extensive testing.
- Led Cloud monitoring, hierarchical dashboards and alarms enrichment & co-relation across the network that includes more than **4000** data centers (Edge and central sites). And implement HW monitoring using IPMI.
- Responsible for Operational readiness for **network FUT launch** to ensure all **100+** datacenters integration with OSS.
- Company level OpenStack cloud implementation and create demo in **MWC** using ONAP, OpenStack and Kubernetes.
- Single handedly developed and design many POCs using OpenShift, Robin.io, MetaSwitch IMS, ONAP, Cloudify, VMware, Spirent
- **At Ericsson:** Single handedly leading the emergencies for vIMS and session initiate protocol (SIP) for global customers.
- **At Nokia:** Successfully Optimize Telco network using BSC, MSC, Media gateway migration.

## Product Owner / Architect, R&D, CTO team

Aug 2020 to Present.

### Radisys — Bangalore, India

- Collaborate with domain, product management, and product engineering teams in solution engineering efforts and provide architectural guidance to cross-functional teams throughout the program lifecycle.
- Led solution designing, planning, CXO presenting, selection strategy and development for cloud platform from scratch.
- Active participation to response RFP/RFI for MEC solution for different customers with presales.
- Leading solution architecture from pre-sales to field deployment for Tier-1/2 customers across the globe primarily focusing on Edge/Cloud/NFV/5G/FTTH domains.
- Product Owner and solution architect for Global scrum team to develop the Edge computing platform and zero touch automation using SUSE, Rancher, SALT, K3s, GO, Python, Ansible and Terraform and Engage stakeholders proactively and ensure successful project outcomes.
- Lead and oversee the end-to-end IT architecture for Edge, and Cloud solutions, collaborating with internal and external partners.
- Design Zero touch Deployment and LCM Automation solutions that will deploy the 900 Edge cloud.
- Design the Backup and restore, resilience, and Monitoring for Edge clouds.
- Develop strategies and architecture for Multi access edge computing (MEC) that's include high performance edge compute using K8s, distributed cloud deployment for MEC, O-RAN, 5G core, Traffic steering, Automation, Edge AI/ML, CI/CD.
- Studying next generation technologies, conceptualizing, and prototyping solutions.
- Analysis and build strategy around different opensource (ONF, Aether, OpenNESS, EMCO) products.
- Built team for Cloud and DevOps experts to build high performance telco cloud for O-RAN, MEC and 5G apps.
- Create testcases to evaluate the multiple cloud platform.
- Responsible to lead the discussion with partners and cross team stakeholders.
- Design & deploy POC for edge cloud to onboard the MRF for facial recognition.

- Led Ideathon and Codethon for Kubernetes Anomaly detection and build a model using AI/ML python (SVN, MLP, CNN) & presented product roadmap. Collect Data using Falco.
- Supporting application development team to architect solutions for ensuring better resiliency and elasticity
- Design solution for logging & monitoring and implement cloud platform security.
- Understanding of Serverless (Knative) & MLOps pipeline using Prometheus and ELK.

#### **Senior Technical lead / Architect, R&D, Rakuten Mobile Cloud team**

Dec 2018 to July 2020

##### **Rakuten India.** — Bangalore, India

- Key Member to develop and design Cloud Native K8s edge platform to onboard O-RAN (CU, DU) and 5G core CNFs and it's monitoring. This includes K8s platform feature selection for high performance using RT OS, SRIOV, FPGA, EPA (CPU pinging, Huge pages, Numa-Node), Multi IP & Distributed Monitoring using CollectD, Prometheus, Kafka and Logging using EFK, filebeat, metric beats.
- Responsible for Cloud Infrastructure monitoring and integration.
- Define and implement reference architecture, integrate and validate solution components, and provide documentation.
- Implement and enrich Cloud Infrastructure hardware monitoring, develop hierarchical dashboards, reduce overall monitoring time to get real time alerts and measurements.
- Monitoring solutions implement for logging using EFK and alerting using Prometheus, Telegraf.
- Performance bench marking for different CNI (Calico, OVS and, SRIOV)
- Identify missing alerts for hardware errors. Define and developed new IPMI sensor for them.
- SPOC for FUT launch to ensure the monitoring.
- Build the team of 9 members to support cloud infra-activities.
- Initiative in SRE implementation in Cloud infrastructure layer and alarms co-relation with other layers.

#### **Technical lead / ERS, R&D,**

Apr 2016 to Dec 2018

##### **HCL Tech.** — Noida, India

- Responsible to integrate ONAP on VMware (ESXi, vCenter, VMware OpenStack, NSX, DNS, NTP). Client VMware.
- MetaSwiith VNF vIMS (SBC, Sprout, homestead, HSS) performance testing using Spirent on VMware Infra. Client VMware.
- Company level OpenStack cloud implementation.
- MWC demo preparation using ONAP with OpenStack for HCL.
- Onboarding VNF using Cloudify orchestration (MANO) on OpenStack(NFVi).
- POC using OpenStack, Cloudify, MetaSwitch for end-to-end voice call.

#### **Various positions: OCT 2009 to December 2016**

Various leadership and individual contributor position to handle the GSM,3G,4G, GSM and IMS core.

- Oct'15-Mar'16 with Huawei Technologies, Gurgaon as Deputy Manager. Client Uninor.
- Jul'13-Oct'15 with Ericsson Global India limited Noida as Customer support Engineer. Clients are Telstra, Ziggo, LGI, Airtel.
- Aug'11-Jul'13 with Nokia Siemens Networks, Lucknow as NSS Configuration Engineer. Client Vodafone.
- Oct'09-Aug'11 with Ericsson Off Role (Essjay Ericsson and TICS), Meerut as Assist Engineer. Client Uninor, Airtel

#### **Education and Training**

---

##### **Bachelor of Engineering (B.E.) in Electronics and Communication (2005- 2009).**

**Rajasthan University** — Jaipur, India

##### **PGP in Data Science & AI (2020 JAN – 2022 April)**

**INSAID** — India

##### **Certified Kubernetes Administrator (CKA in 2020)**

**CNCF (Cloud Native Computing Foundation)** Issued Jan 2020 Expire Jan 2023, Credential ID CKA-2000-005208-0100

##### **ETCP certification at Ericsson in IMS core.**

#### **Skills**

Excellent hands-on skills in Cloud Computing and Telecom (2g, 3G,4G, 5G, **O-RAN, IMS**, Volte, **MEC**, SDPON), NFVi, ETSI MANO and Microservices design and deployment

**Cloud Services:** Kubernetes (Robin.io, Intel OpenNess, OpenShift, K3s), **MultiCloud**(Rancher, Intel EMCO, RedHat ACM) **CNI** (Calico, SRIOV, Multus, IPVLAN, MACVLAN, CILIUM, CANAL), **CSI** (Longhorn, OpenEBS, Container storage, Robin) **OpenStack** (Cisco CVIM, RedHat and VMware OpenStack), **VMware** (ESXi, vCenter, NSX, VIO), **Virtualization** (KVM, ESXi), **High performance tuning** using SRIOV, DPDK, OVS, Calico, HugePages, CPU pinning, pro user (Computer, Storage, Database and App related services). Attended several AWS & Azure solution architecture trainings.

**Dev-Ops solutions:** CI/CD, **Ansible**, **SALTSTACK**, Jenkins, Git, Dockers, ContainerD, Serverless architecture, Version control GIT. **Operating Systems:** Windows, Linux (**CentOS**, Ubuntu, **RedHat**, RHCOS, **SUSE SLES** and **SLES MICRO**)

**Database Systems:** ETCD, MS SQL Server, NoSQL. **Programming/scripting Languages:** **Python**, GO, BASH.

**Analytics:** Python, Tableau, MS EXCEL. **AI/ML:** Python, Tensor flow, Sci-kit learn, Keras, OpenVino. **Networking:** DNS, DHCP, performance, latency, packet drops, routing. **Security:** K8s Cloud security Harding, VPN, IPsec, oAuth. **Monitoring:** Elastic search, Fluent bit, FluentD, Kibana, Telegraf, CollectD, Prometheus, Thanos. **Messaging queues:** Rabbit MQ, Kafka. **Service Mesh:** ISTIO

## Additional projects and Activities

---

- Data science AI/ML and Data analytics projects using python, Tensor flow and tableau.  
Git hub link: <https://github.com/kapilgupta86/DS>.
  - Advertisement Analysis for net-gain and prediction model using deep learning.
  - Kubernetes Anomaly detection using ML & DL.
  - Housing pricing prediction using ML algorithms.
  - Mobile devices analysis across India for different circle. EDA and Tableau analysis.
- Writing Technical Article on AI/ML, Cloud 5G on LinkedIn.
- Learning new technologies and solutions in the field of 5G, Edge computing, Cloud, AI, Security, MEC, Networking.
- Understanding on Intel OpenVino for industry Edge AI Computer vision and NLP use cases.