Kameswaran Arunachalam

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TECHNICAL EXPERTISE

LTE, 5G NSA/SA, NB-IoT

Fixed Wireless Access

3GPP 5G, EPC, UMTS, GPRS Standards

IETF and RFCs

PLATFORM EXPERIENCE

Linux, OpenStack,

Virtualization, Micro Services,

K8 Containerization, Windows

PRODUCTS EXPERIENCE

Cisco Converged Core, ASR5000, ASR5500, VPC

Nokia MAG (SR-7750 1x)

Sonus Session Border Controller (SBC)

Sonus GSX 9000 High Density Media Gateway

Sonus PSX Centralized Policy and Routing (PSX)

Nokia Siemens Networks Flexi BTS

Airwide Solutions (Mavenir) SMSC

PROTOCOLS EXPERTISE

HTTP2, GTP (Version 1,2), NAS, S1AP, REST API, SIP, SCTP, NGAP, RRC, TCP/IP, UDP, BGP, PFCP

TOOLS EXPERIENCE

Wireshark, Landslide, Netscout, SIPP, Lattice, Tcpdump

Professional Summary

Seasoned wireless technology professional with recognized and consistent contributions in the field of telecommunications and wireless industry expertise with **17+ years of experience**, including but not limited to **Telco Architecture**, **Wireless Network and Design**, **Proof of Concepts, Innovation, Cloud** and **Virtualization**, **Implementation**, **Integration** and **Validation, Automation** and **Maintenance** of E2E Mobility NextGen Initiatives like 5G NGxCore, Fixed Wireless Access (FWA), Internet of Things (IoT), vEPC, VoLTE, VoNR, Consumer, MVNO, Interoperability, Narrow Band IoT, Private Networks. Currently working in Fixed Wireless Access & Cloud-Native Converged Core (5G NGxCore + EPC) Design, Network Integration, Deployment & Network Capacity Expansion.

Subject Matter Expert

- Mobility Packet Data Platforms (SMF, UPF, SGW, PGW, MME, SGSN, GGSN, SCEF, NEF)
- Mobile Generations (GPRS/UMTS/LTE/5G SA/NSA)
- Expert in 3GPP and Non- 3GPP Wireless Technologies
- Orchestration
- Private Networks
- Virtualization
- Containerization
- Cloud Solutions
- IP Networking
- AI based Automation and Scripting
- Design/Engineering/Deployment/Implementation/Network Capacity

Work Experience

T-Mobile, United States
Principal Engineer, Systems Architecture (Packet Core)
March 2019 – Till Date

B-Yond, United States
Solution Architect
May 2017 – March 2019

Cisco Systems Private Limited
Software Engineer Level II / III (Mobility Group)
July 2012 – April 2017

Sonus Networks
Senior System Validating Engineer
Aug 2010 - June 2012

Aricent Technology
Testing Engineer
Oct 2008 - July 2010

Patents

- Network latency time measurement using DNS and web server messages (U.S. Patent no – **11,245,606**)
- Wireless Communication Network Operator Defined DNS Server Selection (U.S. Patent no - **11,817,997**)
- Routing Optimization for Service Capability Exposure (U.S. Patent no – **11,503,659**)
- Efficient Emergency Communications Fallback (U.S. Patent no - **12,003,480**)
- Advertisement of supported ip version by packet routing nodes (U.S. Patent No. **12,342,260**)

Achievements and Awards:

- Honored with the "**PEAK Award**" for leading the successful design & deployment of the Converged Core Platform at T-Mobile
- Built a **100TB** capacity packet gateway and seamlessly migrated **~120 million** users
- Achieved **multi-million-dollar OpEx savings** by leading the deployment of converged gateway solutions
- Completed the "**Leadership Ambassador**" program at the Haas School of Business, UC Berkeley
- Granted multiple **patents** by the USPTO, with over 10 additional applications currently in progress
- Delivered a comprehensive two-day training session on **5G and network slicing** for AT&T
- Recognized with the "Connected Recognition" award for exceptional mentoring and named a "Star Performer" at Cisco.

T-Mobile, United States

- **Fixed Wireless Gateway -** Design, Deployment and Migration of Home Internet Users
- **Converged Core –** Design, Deployment and Migration of new Converged Core Platform
- **NB-IoT** – Design of Service Capability Exposure Function
- **5G-NEF** – Design of Network Exposure Function
- **Private Networks** – Design and validation of Private LTE for enterprises
- **Harmony** - Roaming Data Optimization

AT&T, United States (From B-Yond)

- **First Responders Dedicated Network (FirstNet)** – Design of PGW/SGW

Cisco Systems

- **LTE Packet Core** (EPC), SCEF, MME, S4-SGSN & Gn SGSN – Design and Validation

Sonus Networks

- **IP Multimedia Subsystem (IMS)** – P-CSCF, SBG, SBC Design and Validation
- **VoIP (Voice over IP)** – Policy Engine, Gateway Design and Validation

Aricent Technology

- **Flexi Edge BTS Testing** - EX4 (Epsilon 4) of Nokia Siemens's RAN
- **SMSC Testing** - Air Messenger Router 8.x of Airwide Solutions.

Date: Place: Kameswaran Arunachalam