MANOJ GUPTA
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Experienced software engineer with experience in design, development and debugging distributed systems and networking products with a passion for result oriented execution.

SKILLS

- Experience in mentoring team and delivering complex enterprise products.
- Proficient in design and development of analytics framework on distributed architecture using open APIs.
- Device driver development experience on Marvell, Broadcom and Atheros WLAN.
- Extensive work experience with Linux device drivers and kernel internals.
- Experience developing distributed scalable system using Kafka, Redis, Elastic Search, Cassandra, Django and Storm topologies.
- Programming Languages: Golang, Python, C

WORK EXPERIENCE

Distinguished Engineer, Juniper Networks, Dec 2020 – Present

- Integration of 128T router into the Mistsys Cloud for config management and WAN assurance.

- Designed and developed device lifecycle management features like scheduled and automatic image upgrade to AWS/GCS, support log upload, packet capture and telemetry collection.

- Developed Golang microservices for device connected status for outage notification, image download proxy, logging and monitoring support for Prometheus and SignalFx.

- Defined and developed image version release management and runbooks for devops team.

Principal Engineer, Cisco System, May 2015 – Dec 2020

- Designed and developed programmable rule-based engine for wireless intrusion and prevention system using open API framework. Signatures are programmable by customer for new definitions, actions and extendible to support new protocols.
- Designed and developed Intelligent Capture analytics framework for access points. It provides always-on, low performance impact debug infrastructure to detect client state machine anomalies and provide troubleshooting information to management.
- Design the architecture for the next generation cloud-based access point for MSP deployments.
- Designed and developed programmable API framework using open source software stack for device telemetry and analytics. Framework is used as foundation for other projects in wireless team.
- Lead the driver development and integration of 802.11ac Access point. Implemented SKB recycling, fixed kernel and driver issues to deliver the AP3800 series access point.

Distinguished Engineer, Aruba Networks, Dec 2010 – May 2015

- Mentored the team for 802.11 Broadcom driver.
- Prototyped, integrated 802.11 Broadcom driver to Aruba OS, designed and implemented Aruba features to deliver industry first 11ac Access Point based on PowerPC P1020 CPU. Helped the company to transition to new radio platform.
- Lead the development of low cost 11ac Access point. Optimized data path and wireless software for achieving high throughput.
- Developed console over BLE for Aruba Beacons based on TI CC2540.

Principal Staff Engineer, Meru Networks, Jul 2006 – Dec 2010

- Implemented various wireless features on Broadcom radio-based access point including rates per BSS, packet capture, rogue mitigation and silent client detection.
- Implemented Hybrid Beacon Coordination, rogue detection and mitigation, support for DFS, feature enhancement and defect fixing on Atheros radio-based AP.
- Implemented Atheros specific part of Radio Abstraction Layer, which models physical radios and services to interface between configuration and the wireless drivers.
- Enhanced Captive portal for redirection based on FQDN and implemented secondary radius support for MAC filter on Meru controllers.

Lead Engineer, Lucent Technologies, Sep 2004 – Jul 2006

- Worked on multiservice ATM switches that are used in the backbone network as either as a core switch (GX-550) or as an access switch (BSTDX-9000 and CBX-500).
- Implementing MLPPP on CBX500 and fixed customer found defect in OSPF and PNNI.

Senior Software Engineer, Wipro Technologies, Jan 2001 – Jun 2002

- Ported Interrupt Service Routine Hogging (ISRHOG) for 17xx PowerPC platform.
- Implemented Direct Inward Dialing (DID) for Cisco 1700 Routers.

Senior Software Engineer, Infosys Technologies, Jun 2000 – Dec 2000

Worked on Local Number portability module called DASH-X, which provides a solution for a service provider no longer having numbers to assign to customers by porting 1000 numbers from another service provider having free numbers.

Software Engineer, Satyam Computers Services Ltd, Jul 1997 – Jun 2000

Script development for testing routing, switching and VoIP functionalities for network interface cards. TCL is used to test ATM, T1/E1 and QoS features for routers. Responsible for test case development and development of scripts.

EDUCATION

M. S. Computer Science and Engineering, August 2004
University of Texas at Arlington, Arlington, TX, GPA - 4.0

B. Tech., Electronics and Communication Engineering, July 1997
Regional Engineering College, Jalandhar, India

PATENTS

- 14 issued patents in the field of wireless networking and distrubted systems.

PUBLICATIONS

- Provisioning Day 0 configurations through passive radio-frequency identification, *TD Commons, DPUBS_SERIES,* 1813, Dec 2018
- DNAC Based Anonymous DFS (A-DFS) Service, *TD Commons, DPUBS_SERIES,* 1188, May 2018
- H. Che, M. Gupta, S. Velayutham, C. Lagoa, and Z. Wang, "INTESER: A Integrated Solution to Provide QoS, Traffic Engineering, and Fault Tolerance in an MPLS Network," the 18th IASTED International Conference on Parallel and Distributed Computing and Systems (PDCS), Nov. 2006

Honors & Awards

- **Pioneer Award**, *Cisco Systems*, Oct 2019, Team award for Product Innovation Category - AP4800 with Intelligent Capture
- **Pioneer Award**, *Cisco Systems*, Oct 2017, Team award for Product Innovation Category - AP3800 and AP2800 Series Access Points with Flexible Radio.
- **Employee of the Quarter (MIMO)**, *Aruba Networks*, Aug 2014, Recognition received for my contributions towards 802.11ac AP205/AP215 access points.
- **Employee of the Quarter (MVP)**, *Aruba Networks*, Aug 2013, Recognition received for my contributions towards the flagship 802.11ac AP225 access point.
- **Employee of the Quarter (MVP),** *Aruba Networks*, Aug 2012, Recognition received for my contributions towards intellectual property.
- **Scholar Award**, *University of Texas at Arlington*, 2003

REFERENCES: Available upon request