Des Saravanan

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Executive Summary

Customer-focused technical management professional with 21 years of proven experience in product design, development, and QA. Leader with a strong talent in building and developing high performance teams while delivering products from concept to market. Hands on experience and knowledge of Android, Mobile platforms, Runtimes, Networking and Security. Flexible approach to perform in different roles and to scale appropriately as the team requires.

Immigration Status: **US Citizen**

Professional Experience

Dec 10 – Present **Director/Senior Engineering Manager, Intel Corporation, Santa Clara, CA**

Lead the Android Runtime(ART) Center of Excellence for Intel with the responsibility for strategy, direction, planning, development, and delivery of Android Runtime and User Experience for Intel.

- Planned and executed in a start-up like fashion with agility to deliver the Dalvik Runtime stack for the reference Android OS that Intel ships with the mobile/Android platforms, starting from first Intel Android tablet.
- Built an energetic, execution-focused, transparent team from 4 to 60 engineers performing porting, enabling, QA, feature development, functional support, performance analysis, performance optimization of Dalvik and ART VM. Managing the team across 3 countries and 4 different locations along with several other remote staff from different countries spanning 3+ time zones.
- Owner for the Dalvik and ART strategic playbook. Drafted and evolved the strategic evolution of Dalvik and ART VM to position Intel as the technical leader. Worked with different internal and external customers to deliver the best in class software to secure design wins and product delivery. Worked with marketing and encouraged team members to produce the whitepaper, blogs, demo, presentations and other collaterals to support the strategy and results.
- Architected the Intel ART Silver technology strategy, worked with Google and delivered it in the Intel platforms outperforming the stock Android runtime by a large margin on various benchmarks and use cases. Intel ART Silver contains several compiler, GC and runtime optimizations and supports both 32bit and 64bit architectures. Prior to ART, delivered the optimized Dalvik VM for from Froyo to Kitkat.
- Inspired and fostered innovations in the team including several PoC's to improve Intel's Android distro and its UX. Conducted several hackathons to germinate new ideas. Increased the Intel's mobile IP portfolio with all such innovations. This includes cloud offloading, machine learning based security, Android apps UI automation tool, etc.
- Worked with Google and Intel teams to influence the adoption of Android runtime in Chrome OS for ARC, to run Android apps on Chrome and Java adoption of Google's IOT centric Brillo OS.
- Initiated leaner, agile open, and transparent, software development model that can scale multiple platforms while improving customer focus and driving development improvements across the team. The model had continuous improvements and became well oiled machinery producing several releases in conjunction with Google and Intel OneAndroid team, producing consistent quality, performance and UX improvements.
- Influenced the power, performance and user experience optimization of the Android Software stack for Intel Atom based phones, tablets, TV, watch, glass and other form factors across Intel.
- Preached and practiced "People first" culture of commitment to development and professional success of his employees. Empowered the team to lead, execute and demonstrate results for Intel. Worked with several team members (direct and indirect reports) to identify their skillset and motivations and gave them opportunities for their career growth in a way that helps Intel business as well. Many staff members had gone through career advancements like becoming PE, with mentoring.

Sep 09 – Dec 10 **Independent Consultant**

Took personal time off to be with family in India to address a family emergency. Consulted for software development firms on the SDLC life cycle, quality initiatives, and release and configuration management.

Jun 05 – Aug 09 **Director of Engineering, ConSentry Networks, Milpitas, CA**

ConSentry was building next generation Ethernet appliances (CS2400 and CS1000) and switches (CS4048 and CS4024) which natively integrated switching and routing with identity and application firewall capabilities. The product is built using PowerPC and Linux for the control plane and a proprietary multi-core processor with 192 CPUs for L4-L7 processing and Broadcom L2-L3 switch chips for data plane. Joined as the first software development manager and delivered all of the products from concept through the customer acceptance phase. The LanShield CS4048X wiring-closet switch won Interop *2006 Best of Show.*

- Managed the platforms software development team comprised of a first-line manager and direct reports. Team was responsible for diagnostics, hardware and OS bring-up, drivers, multi-core processor bring-up and its system API infrastructure, L2 switching (vlans, link aggregation, STP, igmp snooping, qos, mac security, acl, etc), L3 routing (static, RIP, OSPF, VRRP), management (via CLI, SNMP, Web and NMS) and all other infrastructure features. The team also developed infrastructure software for process monitoring, health checks, high availability, etc.

- Managed the applications software development team directly. This team was responsible for NAC, End point security, AAA, User identification and authentication (Kerberos, Captive Portal, 802.1x, etc.), L4-L7 Application/Protocol identification irrespective of port/protocol by basing on the protocol traffic content, L7 and L7+ visualization, L4-L7 role based access policy (a.k.a. application firewall) management and enforcement in the datapath for granular control to allow, deny, perform rate shaping and mirroring of application against user roles.
- Managed the QA team through a manager both directly as well as through another first line manager. The QA team was responsible for the overall QA of the all the products (hardware, embedded software and network management software). Focused on more QA automation test suits and test planning strategies and tools to optimize the delivery of the quality. Improved product quality release over release.
- Responsible for working with all vendors for purchase and integration of the software components like Monta Vista and WindRiver for Linux, Level7/Broadcom for the L2/L3 switch software stack, Hifn Software stack for L4-L7 application identification decoding, Broadcom SDK, Opswat SDK etc.
- Acted as technical lead and architect along with senior technical staff for the software team to ensure simple, stable, scalable, and sustainable product. Hands-on involvement with design discussions, design reviews, code reviews, test plan and test case reviews. Acted as primary contact for the engineering team to interface to customer support team for triage of customer issues and assignment within the team as appropriate.
- Responsible for the planning and execution of all the software releases which included 11 major releases, maintenance releases, and patch builds for customer support. Responsible for the software technology roadmap and overall architecture. Worked with QA, Product management, Marketing, Sales and Operations for the successful and smooth release of software releases.
- Responsible for staffing and hiring plans. Hired and retained the top talent in the team and managed poor performers. Reorganized team to achieve high efficiency, high productivity, strong morale and team-oriented environment, which resulted in zero attrition and improved execution during a tough business environment. Developed and implemented succession and career development plans to retain and strengthen internal talent and promote from within.
- Promoted a customer centric culture and best practices to handle pre-sales and post-sales technical support in the software development and QA organizations.
- Managed the release management and engineering tools/services team. Defined and implement the processes and metrics needed for software development, source code control, QA, defect management and release management resulting in demonstrable and measurable quality in the field. An ecosystem was built with Wiki, CVS, Bugzilla, Testlink, automation test scripts and release management scripts.
- Outsourced and managed the tech publications team resulting in cost reduction. Multiple revisions of 9 documentation suites delivered for hardware and software products.

Mar 98 – Jun 05 Software Manager, Extreme Networks, Santa Clara, CA

Joined Extreme in its pre-IPO stage, worked on many parts of the software as a core member. Promoted and held various roles as described below.

- Acted as release/program/project manager for several software release streams for both Extremeware and EXOS covering all aspects of Software and managing a team of 50+ engineers. Worked directly with marketing and customers to define software features and requirements. Provide technical leadership and direction to the team.
- Managed geographically dispersed software development teams. Hired and mentored many of the software engineering team members. Helped in integration of acquired companies and their products.
- Contributed to development and utilization of processes and metrics needed for high-quality software development, source code control, defect management and release management, which resulted in best quality product releases in field. Helped to build release engineering team, which oversaw multiple source code and defect control systems.
- Played a pivotal role in pre-sales and post-sales activities for many of the Extreme's large customers in both enterprise and carrier markets such WellsFargo, Lockheed Martin and Korea Telecom. Helped to build the engineering sustaining team and led customer specific SWAT teams resulting in retention of several key customer accounts.

Manager, L2 software

- Delivered all of the layer 2 protocols to the new EXOS software suite, which include STP, LLDP, LACP and the protocols for discovery (EDP), redundancy and high availability (ESRP, ELRP and EAPS).
- Co-authored the ESRPv2 protocol, extensions to the EDP protocol, and extensions to the protocols for hitless failover.
- Created RFC-like standards documentation library for Extreme's proprietary protocols and setup an internal assigned number RFC.
- Represented and managed engineering activities as part of core team of Extreme-Avaya partnership for VoIP.
- Defined the Hardware Abstraction Layer and its APIs for Extreme's software suites for cross platform compatibility.
- Managed ingress rate shaping software suite for the Triumph platforms. Innovated, designed and Managed VLAN based QoS and QoS priority mechanism.
- Redesigned the concept for IPX hardware routing and managed the implementation.
- Designed the concept to support 4k vlans in the Inferno switches and managed the implementation. Managed and designed VMAN tunneling, VLAN translation features. Managed and designed cross module Link aggregation.

Manager, Security software

- Worked with business development to select strong and successful security partners among many different vendors.

- Developed switch security architecture to address port/MAC/IP security, host/device authentication, host integrity and policy enforcements.
- Designed the NetLogin architecture where authentication, host integrity and policy enforcements can be easily managed.
- Delivered 802.1x, web-based network login, MAC based network login features.
- Delivered various Port/MAC security features like limit learning, flooding control, etc.
- Delivered various IP address security features such as secure arp.
- Delivered NAT in software for Extremeware; Ported and enhanced Server Load Balancing software.

Tech Lead, IP multicast

- Designed and developed PIM-SM, PIM-PMBR protocol software.
- Ported PIM-DM protocol software to the Extreme's products. Maintained DVMRP and IGMP snooping.
- Fine-tuned hardware algorithm for multicast routing. Designed and implemented multicast ingress rate shaping.

Tech Lead, L3 software

- Managed and delivered VRRP for EXOS.
- Optimized IP slowpath code to achieve 10X increase in processing speed.
- Designed and developed IP route redistribution at the route table management level; Enhanced IP route table to recognize unicast and multicast specific routes.
- Implemented IP subnet directed broadcast in the hardware; Maintained IP multinetting, QoS, Web cache redirection features.
- Designed and developed IPX, IPX-RIP, IPX-SAP protocol software.

Tech Lead, Platform Software

- Responsible for infrastructure startup for several new modules for chassis platforms.
- Innovated and led the hardware health checks.
- Redesigned and developed mirroring.
- Redesigned and managed FDB synchronization and aging mechanism.
- Helped ASIC team to address new features in their next generation chipsets.
- Managed and implemented enhancements for faster boot up.

Nov 97 – Mar 98 Senior Software Engineer, FlowWise Networks, San Jose, CA

Designed and developed the switching and routing solutions for the FlowWise's L3 switch product.

Jun 95 – Nov 97 Senior Software Engineer, Future Software, Chennai, India

Designed, developed and tested FutureOSPF, a source code product that is sold to the OEM vendors for routers & switches.

Education

BS, Computer Science and Engineering, CIT (One of the top 25 institutions in India),