Des Saravanan

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PROFILE: DIRECTOR/SR. ENGINEERING MANAGER
~TEAM LEADERSHIP ~ PRODUCT DESIGN/DEVELOPMENT ~ QUALITY ASSURANCE~

✓ Customer-focused technical leader with 21 years of experience leveraging strong business acumen and project management abilities to devise and execute product development roadmaps, and create go-to-market strategy for Android, Mobile platforms, Runtimes, Networking, Communications, Security and Embedded and system software.

✓ Take-charge professional with exceptional communication and presentation skills, and proven management aptitude to build and motivate top performing, cross-functional and global teams to deliver best-of-breed technology products within the constraints of scope, quality standards, timelines, and budgets.

✓ Accomplished in researching and evangelizing the latest technologies and best practices to improve product development processes, resolve challenging technical problems and increase product quality.

✓ Communicate and champion technical and business solutions to both technical and non-technical audiences and collaborate with cross-functional teams, vendors, customers, and other key stakeholders to translate business needs into project and product requirements, and realize cost efficiencies and system reliability.

Core Competencies

Cross-Functional/Global Team Leadership | Product Development Roadmap & Execution
Technology Go-to-market Strategy | Product Design & Delivery Management
Project Management | Reporting/Presenting | Staff Management & Development
Technology/Business Strategy & Planning | Customer Requirements | Quality Assurance (QA)
Mobile Devices | Wearables | IOT | DevOps | Firewall | Machine Learning | Cloud Computing | Ethernet
Device Drivers Switching | Routing | Security | TCP/IP | Communications | Networking | Java | Virtual Machines
Managed Runtimes | Android Runtimes | Android

PROFESSIONAL EXPERIENCE

DIRECTOR/SENIOR ENGINEERING MANAGER • INTEL CORP. • SANTA CLARA, CA • DEC 2010 – PRESENT

Recruited to lead the Android Runtime(ART) Center of Excellence for Intel. Manage strategy, direction, planning, development, and delivery of Android Runtime and User Experience.

♦ Planned and drove entrepreneurial and agile operations 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, solutions-oriented, transparent team of 4 to 60 engineers to perform porting, enabling, QA, feature development, functional support, performance analysis, performance optimization of Dalvik and ART VM. Managed team members dispersed across 3 countries and 4 different locations along with remote staff spanning 3+ time zones.

♦ Owner for the Dalvik and ART strategic playbook. Drafted and drove the strategic evolution of Dalvik and ART VM to position Intel as the technical leader. Liaised with different internal and external customers to deliver the best in class software to secure design wins and product delivery. Collaborated with marketing team members in the production of white papers, blogs, demos, documentation and presentations to support the strategy and outcomes.

♦ 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 contained several compilers, GC, and runtime optimizations and supported both 32bit and 64bit architectures. Prior to ART, delivered the optimized Dalvik VM from Froyo to KitKat.

♦ Inspired and fostered innovations within 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 including cloud offloading, machine learning based security, Android apps UI automation tool, etc.

♦ Interfaced 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.

♦ Introduced leaner, agile open, and transparent, software development model that scaled multiple platforms while improving customer focus and driving development improvements across the team. The model had continuous improvements and became a well-oiled machinery producing several releases in conjunction with Google and Intel OneAndroid team, realizing 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.
- Evangelized and practiced a "People first" culture of commitment to employee career development and professional success. Empowered team members to lead, execute and demonstrate results for Intel. Worked with direct and indirect reports to identify their skill set and motivations and offered them career growth opportunities in compliance with Intel's business objectives. Many staff members went through career advancement, becoming PE, with mentoring.

INDEPENDENT CONSULTANT • CONSULTING/MULTIPLE COMPANIES • SF METRO • SEP 2009 – DEC 2010

Took personal time off to address a family emergency in India. Concurrently provided consulting services to software development firms on the SDLC life cycle, quality initiatives, and release and configuration management.

DIRECTOR OF ENGINEERING • CONSENTRY NETWORKS • MILPITAS, CA • JUN 2005 – AUG 2009

Contributed to ConSentry's efforts to build 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 was 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.

- Led the platforms software development team comprised of a first-line manager and direct reports through completion of multiple functions including 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. Directed the team to perform process monitoring, health checks, high availability, etc.
- Managed the applications software development team directly. This team was tasked with NAC, Endpoint 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 data path for granular control to allow, deny, perform rate shaping and mirroring of application against user roles.
- Directed the QA team through a manager both directly as well as through another first line manager. The QA team supported the overall QA for all the products (hardware, embedded software, and network management software). Focused on increasing QA automation test suits and test planning strategies and tools to optimize quality assurance. Enhanced product quality release over release.
- Liaised with vendors to manage purchase and integration of software components including 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 deliver simple, stable, scalable, and sustainable products. Hands-on involvement with design discussions, design reviews, code reviews, test plan and test case reviews. Acted as the primary contact for the engineering team to interface with customer support group for triage of customer issues and distribution of tasks within the team.
- Drove planning and execution of all the software releases which included 11 major releases, maintenance releases, and patch builds for customer support. Defined and executed the software technology roadmap and overall architecture. Collaborated with QA, Product Management, Marketing, Sales, and Operations to achieve successful and smooth software releases.
- Developed staffing and hiring plans. Recruited and retained top talent for the team, administered performance evaluations and mentored poor performers to enhance team productivity. Reorganized team to promote high efficiency, strong morale and team-oriented environment, which resulted in zero attrition and improved execution within a challenging 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 manage pre-sales and post-sales technical support in the software development and QA organizations.
- Directed the release management and engineering tools/services team. Defined and implemented the processes and metrics needed for software development, source code control, QA, defect management and release management resulting in tangible 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 significant cost reduction. Led multiple revisions of 9 documentation suites delivered for hardware and software products.

SOFTWARE MANAGER • EXTREME NETWORKS • SANTA CLARA, CA • MAR 1998 – JUN 2005

Recruited to join Extreme during its pre-IPO stage, to work on many parts of the software as a core team member. Promoted through various roles and functions including Manager/L2 software, Manager/Security Software, Tech Lead/IP multicast, Tech Lead/IP multicast, Tech Lead/L3 software, Tech Lead/Platform Software.

♦ Acted as release/program/project manager for several software release streams for both Extremeware and EXOS covering all aspects of Software and leading a team of 50+ engineers. Worked directly with marketing and customers to define software features and requirements. Provided technical leadership and direction to the team.

♦ Managed geographically dispersed software development teams. Hired and mentored many of the software engineering team members. Assisted with the integration of acquired companies and their products.

♦ Contributed to development and implementation of processes and metrics to support high-quality software development, source code control, defect management and release management. Helped build the release engineering team to manage multiple source code and defect control systems.

♦ Played a pivotal role in pre-sales and post-sales activities for many Extreme's large customers in both enterprise and carrier markets such WellsFargo, Lockheed Martin and Korea Telecom. Participated in building the engineering sustaining team and led customer specific SWAT teams resulting in retention of several key customer accounts.

MANAGER, L2 SOFTWARE

♦ Delivered all layer two protocols to the new EXOS software suite, including STP, LLDP, LACP and the protocols for discovery (EDP), redundancy and high availability (ESRP, ELRP, and EAPS).

♦ Co-authored the ESRPv2 protocol and extensions to the EDP protocol, and 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 a 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.

♦ Spearheaded 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 directed its implementation.

♦ Designed the concept to support 4k VLANs in the Inferno switches and managed the implementation. Managed and designed VMAN tunneling, VLAN translation features. Directed and designed cross module Link aggregation.

MANAGER, SECURITY SOFTWARE

♦ Interfaced with business development to select reliable 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 NetLogin architecture to facilitate management of authentication, host integrity and policy enforcements.

♦ Completed successful delivery projects including 802.1x, web-based network login, MAC based network login features; various Port/MAC security features like limit learning, flooding control, etc.; various IP address security features such as secure arp.; 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 slow path code to achieve a 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

Led infrastructure startup for several new modules for chassis platforms. Innovated and performed the hardware health checks. Redesigned and developed mirroring. Redesigned and directed FDB synchronization and aging mechanism. Helped ASIC team manage new features for next generation chipsets. Implemented enhancements for faster boot up.

EDUCATION

BACHELOR OF SCIENCE, COMPUTER SCIENCE & ENGINEERING
CIT (*ONE OF THE TOP 25 INSTITUTIONS IN INDIA*), INDIA