RAVI KUMAR REDDY K

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| **SUMMARY** | * Software Developer with extensive experience of 6+ years in developing System Platform Software, Network Datapath, Applications and Tools for On-Premises and Virtual Next Generation Firewalls (NGFW), Containerized Firewalls (ASAc), Switches and Access points. * Extensive Experience in Cloud Computing, Virtualization, Linux Internals, Software Architecture, and comprehensive understanding of latest technologies. * In-depth knowledge of Layer 2, Layer 3 and Layer 4 networking, SSL Applications and Firewall Features. * Hands-on experience in design, configuration, development and troubleshooting of firewalls, routers, switches and email security appliances of different vendors. |
| **SKILLS** |  |
| Languages | C, C++, Python3, Bash |
| Public Clouds | AWS, OCI, Azure, GCP (Beginner), Alibaba Cloud (Beginner) |
| Private Clouds | KVM, VMWare |
| NFV | Intel DPDK Framework, Datapath Performance Optimization, VxWorks on BSPlib (Beginner) |
| Web | REST, JSON, XML, Regular Expressions, HTML, CSS, JavaScript, PHP (MVC CodeIgniter) |
| Tools | vSphere 6.5, Agile, Jira, Confluence, Target Process, CDETS, Coverity, Git, Perforce, Linux (RHEL, CentOS, Ubuntu, Fedora, WindRiver), Windows, MacOS |
| Networking | Layers – 2,3,4, TCP/IP, NAT, Policy Based Routing, Content Filtering, High Availability, SSL/TLS, LDAP, RADIUS, IPSec, VLANs, 802.1x, STP, Failover & Load Balancing and so on |
| **EXPERIENCE** |  |
| **CISCO INC.** | **Software Engineer III** *(August 2020 – Present | 1Year 5 Months)* |
| Cloud and Virtualization | * Worked on **Intel DPDK/NFV Architecture** for Deep Packet Inspection in Cisco ASAv and NGFWv (FTDv) firewalls, which detects threats and responds dynamically. * **Data path** **specialist** for various Public clouds mainly AWS, OCI, GCP, Azure and Private clouds including KVM and VMWare for drivers used in form factors Containers/Virtual Machines for Cisco ASAv and NGFWv firewalls. * Worked on adding **SRIOV support** for Cisco ASAv and NGFWv deployments in **Oracle Cloud Infrastructure (OCI)**, **ESXi servers through VMware and Alibaba Cloud.** * Worked on adding support to **Broadcom NetXtreme Adapters** for Cisco ASAv and NGFWv (FTDv) deployments in Oracle Cloud Infrastructure (OCI). * **Improved Performance of SMP systems** mainly Cisco ASAv in KVM and OCI Platforms by adding **Multiqueue with RSS support** for i40E and i40evf network drivers and Intel XL710 Network Cards. * Resolved several **NIC Underruns, Interface Hot Plugging Support, Core Dump Issues,** **Mbuf issues, Memory Leaks, Low CPS/PPS** (Connections per second or Packets Per Second) issues on ASAv deployments in KVM and VMware platforms. * Migrated Virtual firewall deployments **in Azure from Python2.7 to Python3.9** using **AzureLinuxAgent**. Resolved various issues as part of upgrading underlying WindRiver Linux OS Upgrade. * Cleared several **Coverity (Synopsys Framework) defects** in existing Code base and automated for QA analysis. * Collaborated with other Engineers on code reviews, functional specification reviews and process enhancements. Facilitated problem diagnosis and prompt resolution for critical issues reported by customers. |
| **RED PIRANHA** | **Software Development Engineer** *(May 2020 – August 2020 | 3 Months)* |
| Crystal Eye | * Developed features for Crystal Eye, a network operating system running on firewalls, such as **SSLVPN Module** such as **LDAP Integration**, Static IP setups, SSL Perceive and Bump and so on in Linux based Virtual Firewalls. * Designed system specification for various features of SSLVPN. * Collaborated with colleagues on code reviews via Git, test cases, documentation and general process enhancements. |
| **SONICWALL INC.** | **Software Development Engineer** *(June 2015 – April 2020 | 4Years 11 Months)* |
| SonicOS | * Developed a solution to integrate SonicWall **Switches with Firewalls** to give granular monitoring on every end-user through a single management interface. * Developed CLI and API interfaces to configure Flow Reporting, ARP Storm Limit and AWS Integration of Firewalls. * Resolved several issues with **Wire Mode Interfaces, Log Monitor**, Syslog Monitoring, FTP Logging, TSR Export and so on in SonicOS * Designed and developed **log analyzers** namely TSR Analysis Tool, EXP Viewer that parses various sections of log files using Regular Expressions and display output in a human-readable format. * Developed Migration Tool for customers of other vendors namely, Cisco, Check Point, Juniper, Fortinet, Palo Alto, WatchGuard and Sophos to migrate easily to SonicWall. *URL:* [*https://migratetool.global.sonicwall.com*](https://migratetool.global.sonicwall.com/) |
| **EDUCATION** | * **Master of Technology in Software Systems – Security** from **Birla Institute of Technology and Science (BITS).** *2021 – 2022, Current CGPA: 8.7/10* * **Bachelor of Engineering** in **Computer Science & Engineering** from **Visvesvaraya Technological University.** *2011 – 2015, CGPA: 7.3/10, accredited by World Education Services, Toronto, ON* |
| **CERTIFICATIONS & TRAININGS** | * [Crystal Certified Network Engineer](https://github.com/ravikumark815/certifications/blob/master/SonicWall-Hypersonic-Certificate-20200413.pdf) *(Red Piranha – April 2020)* * [SonicWall Technical Master](https://github.com/ravikumark815/certifications/blob/master/SonicWall-Technical-Master.pdf) *(STM – March 2020)* * [SonicWall Network Security Administrator](https://github.com/ravikumark815/certifications/blob/master/SNSA.pdf) *(SNSA – License # bd75d8d8051084bcbcf26328e7caff60)* * [Certified SonicWALL Security Administrator](https://github.com/ravikumark815/certifications/blob/master/CSSA.pdf) *(CSSA - License # 54A9-2099-DE5E-4B52)* * [Certified White Hat Hacker](https://github.com/ravikumark815/certifications/blob/master/CWHH_L2.pdf) *(CWHH – Certified till Level 2)* * Certified Cisco Networking Associate *(Cisco Netacad)* * Cloud Computing Essentials *(Cisco Netacad)* * AWS for Developers *(Cisco Internal Trainings* * Linux Kernel Debugging *(Cisco Netacad)* * Linux Device Drivers *(Cisco Netacad)* * Linux Process Management and Scheduling *(Cisco Netacad)* * Linux Memory Management *(Cisco Netacad)* |
| **ACHIEVEMENTS** | * [Cisco Connect Everything recognition for VirtIO Troubleshooting 2022](https://github.com/ravikumark815/certifications/blob/master/Cisco-Award-VirtIO-OCI-ConnectedRecognition.pdf) * [Cisco Connect Everything recognition for SR-IOV Support 2021](https://github.com/ravikumark815/certifications/blob/master/Cisco-Award-SRIOV-ConnectedRecognition.pdf) * [Completed all Technical Tiers in SonicWall University FY’21](https://github.com/ravikumark815/certifications/blob/master/SonicWall-Hypersonic-Certificate-20200413.pdf) * SonicWall Outstanding Contributor for Q4 FY 2019 * SonicWall Key Contributor for FY 2018 * Won Q3 FY'16 Dell SonicWall Quarterly OSAT and NPS Championship Award * Won IBNC (Networking Championship) at Zonal Level conducted by Association for Computer Machinery (ACM). |
| **RESEARCH**  **PAPERS** | * “Detection of HTTP Based Botnets with Network Analyzers using Classifiers and Domain Name Filters” in International Conference on Engineering, Science, Management and Advances in Research Technology, 2015, ISBN: 2278-0181, IF: 1.76 * “Interfacing Automobiles with Smartphones” in National Conference on Green Computing Technologies (NCGCT), IJRET 2015, ISBN: 978-93-84935-31-3, IF:2.375 |