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| **Name Rohit Gupta**  **Address:** 54/16 Rajpur Road Dehradun-248001, Uttarakhand, India.  **Phone No.:** +919717572567  **e-mail:** rohit2024@gmail.com | | | |
| Summary | | | |
|  | I have more than Five years of experience in the IT industry majorly in the wireless communication domain (LTE MAC, 3G-UMTS RRC, WiMax, FemtoCell, Core Network, Mobile IPv4, Interconnect Billing).  I am currently working as a Senior Software Engineer with **Aricent Group** (previously known as Hughes Software Systems). I joined Aricent in July 2010. This is my Second company.  I have Good knowledge of   * 4G-LTE technology at Layer2 of eNodeB Network element * 3G-UMTS technology at Layer3 of RNC Network element * Worked on Core Network and Femtocell setup on Pico Chip and Broadcom Board. * Extensive experience in RANAP, HNBAP, RUA, NBAP, RRC, GTP, RTP, SCTP, SCCP. * Knowledge of Interconnect Billing on INTEC ICTv7.1. | | | |
| skills | | | |
|  | Domain   * 4G-LTE architecture, Interfaces and Call Flows. * 3G-UMTS architecture, Interfaces and Call Flows. * 3G Layer3 (RRC) Procedures. * NAS Protocols, RANAP, HNBAP, GTPU, RUA, SCCP, SCTP. * SW Development in WiMax and MobileIPv4. * Interconnect billing.   Languages   * C on Linux. * C++, VxWorks Rhapsody and UML. * TNSDL   Software, Clearcase   * Tools such as Rhapsody, Wireshark, gdb, purify, Klockwork, Challenger, EMIL, TNDebugger.   SDLC/Processes/Soft Skills   * Participated in all phases of Software Development Life Cycle. * Experience in analyzing customer requirements, designing sub-system architectures, identifying and reviewing critical areas of the software subsystems. I also have experience in integrating subsystems and identifying system level issues that span across interfaces and working towards their resolution. * Ability to Write efficient code and also review the code written by others. * Experience in reverse engineering of the software and very strong debugging skills. * Excellent mentoring abilities. * A hard worker and a good team player and have good communication skills. | | | |
| Experience | | | |
|  | 4G LTE L2 PROTOCOL STACK at eNODEB for SPIRENT | | Dec 2012 – Present |  | | 3G HNB-GW for RADWIN | Mar 2012 – Dec 2012 |
| Aricent Technologies  4G LTE Development of MAC L2 in 3GPP Rel 10 Carrier Aggregation for eNodeB for Sprient E2010s Network Emulator.  (C++, VxWorks, Rhapsody, Visual Studio 2010)   * Design, Development and Testing of 4G LTE MAC Protocol Layer at eNodeB. * Design and Development of Carrier Aggregation Feature for L2 layer at eNodeB. * Handling of Interface between MAC and PHY. * Handling all the changes needed in UL for CA feature for 2 cells. * Involved in test scripts development for Integration Testing. * Developing the L1 Test Driver code(L2 and L3 simulator) for testing PHY Layer.   **3G HNBGW for RADWIN** Mar 2012 - Nov 2012  Aricent Technologies  3G HNB-GW node acts as a RNC for the CN nodes and serves as a concentrator of HNBs. 3G HNB-GW terminates the IuH interface (HNBAP & RUA) from the HNBs and Iu interface from the CN (MSC & SGSN).  (C, Linux)   * Design, Development and Testing of 3G-HNBGW control plane functionality for HNB UE handler. * Handling of Iu-CS and Iu-PS interface (RANAP 3GPP Rel9 compliant) * Handling of Iuh Interface between HNB and HNB-GW (HNBAP and RUA 3GPP Rel9 compliant) * Involved in development and testing of 3G-HNBGW Data plane functionality for GTP Relay and RTP Relay. * Involved in development of Core Network Module for Testing HNBGW with real HNB. * Performed end to end Testing of complete messages from HNB to HNB-GW to CN, i.e. complete HNBAP, RANAP and RUA messages. * Successfully implemented and tested CS call, PS call, SMS, Emergency call, Multi PS RAB and HNB-HNB relocation on customers HNB. * Involved in IOT testing with customers HNB and real UE’s.   **3G CNE for FemtoCell** Oct 2011 - Feb 2012  Aricent Technologies  Core Network Emulator for Testing Femto Cell in 3G UMTS. Core Network Emulator combines the entire 3G HNB-GW, Core Network, RANAP, HNBAP and RUA encoder/decoder used for implementing the end-to-end PS and CS call with real UE's and 3G FemtoCell.  (C, Linux)   * Done the designing and coding for Core Network Emulator and HNB-GW for Femto Cell in 3G Rel8 compliant. * Worked on Clear Case tool, C, Linux, gdb. Domain knowledge gained in 3G core Network CS and PS call scenario. * Done the coding with respect to CS and PS call scenario for MM, CC, SM and GMM messages. Have done coding for FAPI encoder and decoder messages with respect to Rel 8 parameters. Also done coding for CNE in CS call mesages. * Involved in Testing the CNE with PS and CS call perspective for 3G Femto Cell. RANAP and HNBAP encoding decoding and configuring of RUA. Other Protocols Tested include NBAP, RRC, GTP, RTP, SCTP and IuuP. * Have been able to identify and correct the issues coming in coding for NAS Auto Gen code for packing and unpacking of messages. Also some fixes related to PS call scenario. * End-to-End CS and PS call with real UE’s Nokia E72 successfully implemented on PicoChip Board-PC312 with CNE in Lab. | | |
| RRC Module for NSN RNC in 3G UMTS | Jul 2010 – Sep 2011 | |
| Aricent Technologies  NSN has CRNC as its main product in 3G-UMTS deployed commercially. It plans to roll-out new Products in this Domain like mcRNC and ADA.  (TNSDL, Challenger, EMIL, TNDebugger)     * Experience in RRC implementation of customer’s RNC for features like HSUPA Signalling Link Establishment, 16QAM, Enhanced Cell-FACH * Enhancements for interfacing with RRM modules like – Node B Resource Manager, Network Resource Manager and Mobility Manager. * Involved in fixing issues for various RRC scenarios involving RRC connection setup, RAB setup, state transitions and HSUPA. * Involved with Testing team for Integration and Verification testing, of new features, OMS resiliency, Regression and Legacy testing, Alarms Scenarios on new Product NSN-mcRNC and NSN Flexi WCDMA-BTS.. * Bug fixing done in required time frame with full adherence to quality. * Actively assisted team members in solving prontos and doing MT for modified code, given feedback on analysis performed by using TN Debugger, Mon files, Logs and code. | | |
| **Unitech Wireless - Interconnect Billing** June 2009 - May 2010  Wipro Technologies  This Interconnection is the physical linking of a carrier's network with equipment or facilities not belonging to that network. The term may refer to a connection between a carrier's facilities and the equipment belonging to its customer, or to a connection between two (or more) carriers. Interconnect business is financial transaction between two operators for exchange of services.   * Analyzed requirement documents and Use Cases to prepare the detailed Test Plans, Test Cases and developing Test scripts for Call Control Module, Common Framework. * Worked from the beginning in the making of SOP Document, interacting with Vendor and client as well to formulate requirement gathering and setup of complete TST Environment for Interconnect application server, then for DEV as well as for PRD Environment. * Attended Trainings given by INTEC on ICT and Automated Reconciliation. Involved in the POI Testing/CDR processing end-to-end on application for all the circles and Scenarios. Also involved in Financial Manager and Automated Reconciliation for Interconnect. Worked with the Operations team at Launch of Uninor Live Network, interfacing with the Client( Uninor ) and Vendor ( INTEC ). Been instrumental in ramping up all the lateral hires and fresher’s joining the Interconnect Billing in Development as well as in Operation Teams. * Achievements : Instrumental in making the SOP document, giving training to the development team on ICTv7.1 and Operations team. Successful roll out of Uninor Production Server for Interconnect Billing. | | |
| **MobileIPv4 Solution for Wi-Fi, WiMAX and TETRA** | Dec 2007 – May 2009 | |
| Wipro Technologies  This Mobile IP which is a standard developed by IETF for the purpose of providing macro mobility across a set of different radio access technologies will be used for this purpose. The solution provided will have a flexible design to handle the inter-working among Wi-Fi, WiMAX and TETRA technologies and efficiently use the given resources.  (C, Linux)   * Worked on dynamics-0.8.1 HUT code for Mobile IPv4(rfc 3344). * Worked on dhcp-3.1.1 for DHCP Relay/Proxy. Worked on strongswan-2.8.0 for Psec. Actively involved in designing and developing the DHCP Proxy, DHCP Relay, IPsec and Network Mobility for IPv4(NEMO) in WiMAX Architecture. * Involved in Designing detail level design documents/Requirement docs. Played a key role in Developing/Debugging and functional / Integration testing of DHCP Proxy, DHCP Relay IPsec and NEMO feature. Played a key role in developing Network Mobility for MIPv4 (rfc 5177). Actively involved in reviewing the code of HA and FA for DeepCheck Analysis. Actively involved in detail level design documents /Requirement docs. Played a key role in Debugging and functional / Integration testing of DHCP, DPF, PMIP, FA and HA. * Implemented DHCP according to WiMAX Forum Network Architecture(Stage 3: Detailed Protocols and Procedures). Completed integration testing of DHCP(Proxy/Relay), DPF, PMIP, FA and HA. Dynamically handled the Tunnel creation and deletion in Mobile Router case. * Achievements : Awarded Feather in my Cap certificate for implementing NEMO functionality. | | |
| Education Details | | | |  | | | | |

* Bachelor of Technology (B.Tech.) in Electronics and Telecommunications from College of

Engineering, Roorkee with 66.82% in 2007

* Senior Secondary from I.S.C.E with 83.6% in 2001

Secondary from I.C.S.E. with 87.3% in 1999

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| PERSONAL Details |  |

Father’s Name: Sh. N.R.Gupta

Date of Birth: 25-Apr-1983

Marital Status: Married

Passport: G5086639