

## Contact

hare.anil@gmail.com

[www.linkedin.com/in/anil-rawat-98ab693b](http://www.linkedin.com/in/anil-rawat-98ab693b) (LinkedIn)

# Anil Rawat

Principal System Engineer at Aricent Technologies Holdings Limited.  
(Flextronics Software)  
Gurgaon, Haryana, India

## Summary

18+ yrs. experience in leading various Product Verification projects with multiple Tier1 and Tier-2 Nokia, Ericsson, Siemens, Tekelec[Oracle], Turner. Also experienced in developing Automation framework for Web Apps[Selenium], Mobile Apps[Appium] and ETL jobs verification with Robot framework using Python[deployed in cloud environment - AWS]. Currently working with Aricent Technologies (Holdings) Ltd. as Principal Systems Engineer for the US based client's Data Analytics group i.e. Strategic Implementation Consultant and Development teams for capturing the requirement from Research group for Adobe Omniture, comScore, Nielsen Analytics Systems and then leading the team to QA and also Develop and maintain the test automation frameworks. I also worked as a onsite Technical Manager at Atlanta. Previously worked on RCS-e (Rich Communication Suite-enhanced) Android and iOS Client as well as Hosted Solution Product verification (IOT). I have also done product Verification of GSM/GPRS BTS (4 yr.), UMTS SGSN (2 yr.), Central Network Performance Analysis Product for Wireless Core Networks-involves verifying signaling and data transactions related SS7-SIGTRAN-EAGLE, GSM, UMTS, LTE, IMS (6 yr.) and LTE eNodeB and SPR-PCRF (since June 2012). Started with Siemens as Telecommunication Engineer(2.5 yr.) and then with Bharti cellular operator as Switching Engineer (2yr.).

---

## Experience

Altran

Principal System Engineer

January 2019 - Present

Gurgaon, India

Automation Framework Development for Telecom Node Configuration and Monitoring Web Application

Developed automation framework to automate Configuration and Monitoring Web Application. Salient features:

1. Ant is used to build, deploy and run automation scripts
2. HTML based test reporting
3. Run test on multiple browsers like chrome and firefox
4. Compatible to both windows and linux platform
5. Automated more than 2000 test cases
6. Single place for tester to configure test setup i.e. choosing the browser type, web application access link, credentials, etc.

Created a PoC to demonstrate how this existing framework can be enhanced to run parallel execution across different browsers and machines/nodes for multi browser support and faster execution.

#### Frameworks & Tools:

Build System - ANT, Test framework - JUNIT4, Web Interaction Framework - Selenium Webdriver, Log collection - Log4j, Parallel and multi browser execution across multiple nodes - Selenium Grid

Technologies: JAVA

Platform: Linux, Windows

#### Aricent

18 years 10 months

#### Principal Systems Engineer

July 2014 - Present

Gurgaon, India

Working with Data Analytics group. I worked with SIC-Strategic Implementation Consultant, Development and QA teams. Our responsibility is to integrate analytics to web and mobile apps supported over iOS, Android and connected devices(Roku, FireTV, Apple TV) platforms. We integrate Adobe, comScore, Nielsen Analytics tags. I work in the role of QA and Test Automation Solution Architect leading the team in:

- helping team members to conclude Customer Product discovered issues by giving them technical guidance
- developing the Test Automation frameworks based on selenium, Appium and Robot frameworks
- creating PoC for new features and improvements in existing frameworks
- providing demos to customer related for new Test Automation Features and process enhancement

- regular meetings with offshore and onsite product verification team to assess the progress and issues
- regular meetings with Lead from customer site for the status and mitigation
- Test effort Estimation different types of testing including integration, Regression/System and sanity testing.
- proposal writing

From Jul 2014 to July 2016 Onsite Technical Manager Responsibilities for this role was:

- Onsite customer meetings to understand the requirements and their expectations
- Meetings with offshore team to convey these tasks and status update for the tasks
- Defining the architecture and framework for new automation tools with customer inputs.
- QA and automation process development and improvements
- providing demos to customer related new Test Automation Features and process enhancement

Testing Automation Framework Development for  
Web Application

Android and iOS Mobile Apps

ETL applications [using PostgreSQL and Redshift DB deployed over AWS using Robotframework]

Tools/Frameworks: Selenium Test NG, Selenium Grid, Robot framework, Appium, seeTest, ObservePoint, Ensignten

DevOps Tools: sourceTree, bitBucket, Bamboo, HipChat, sauce lab, Docker

Technologies: JAVA, JUNIT4, jQuery, Python

Principal Systems Engineer

March 2013 - June 2014 (1 year 4 months)

California, USA

Working on RCS-e (Rich Communication Suite - enhanced) for one of our customer based in North America. Recently next version of RCS i.e. Blackbird is also being introduced. RCS is a platform used to provide rich communication among users using smart phones which includes text, MMS, chat, group chat, VoIP-HD Audio and Video Call. RCS is being developed under the umbrella of GSMA and branded as Joyn.

I was involved in following activities which has been executed for North America and European Tier-1 and 2 RCS client and Telecom network providers companies:

- Android as well as iOS based RCS-e client verification with Telecom network operator.
- IOT( Inter-operability Testing) between our [RCS Client + IMS infrastructure] and Telecom Operator [3rd party (client + IMS infrastructure)]
- RCS Hosted Solution CDR verification
- IOT of our RCS-e client to 3rd party RCS client Verification on Telecom network operator IMS infrastructure
- Our Hosted Solution verification for Telecom Network operator
- Our Hosted solution verification with 3rd party RCS-e client
- Android RCS Client automation using monkeyrunner and Robotium

Domain and Protocol: IMS and [SIP, MSRP, RTP]

Verification Management tools used: Jira, testrail and build server bamboo  
Agile SW development and verification methodology is used.

### Principal Systems Engineer

August 2005 - February 2013 (7 years 7 months)

Gurgaon, India

Contributing to various products i.e. LTE SPR (SPR-PCRF), LTE eNodeB and Central Performance And Analysis Product (it does the monitoring of transactions happening at the different interfaces of networks (LTE, IMS, SS7, SIGTRAN EAGLE and GSM, GPRS, UMTS) and helps the operator to understand the network problems, resources usage so that it can make the right decisions.

Working as a Principal System Engineer in the above mentioned domains.

Project mainly involves following activities

- Worked as a Technical Coordinator 5 years in [onsite-USA + offshore - Gurgaon] for Central Network Performance Analysis Product. This involved :
  - helping team members to conclude Customer Product problems by giving them technical guidance
  - regular meetings with offshore and onsite product verification team to assess the progress and issues
  - regular meetings with Lead from customer site for the status and mitigation plans
- Proposal writing for new projects based on RFP and then participating in subsequent meetings with customers

- Product Demo to customers Organizing and presenting our product demo to customers which involves creating a lab setup satisfying the key features of product, and a test suite for feature verification
- Providing inputs to design the Automation Framework
- Project planning in terms of identifying
  - o Good project management, people management and interpersonal skills while managing CNPA testing project. Proactive and growth oriented with good leadership skills.
  - o Interfacing with the client for understanding the product requirements, technical communication/discussion
  - o Estimation of test effort for various features and system level testing
  - o Managing and leading team members; allocating resources among team members; guiding team members during the project till final delivery.
  - o Handling/Hosting of Project, Problem reporting and Weekly meetings with the Local team and Customer Teams.

#### Technical Lead

November 2000 - August 2005 (4 years 10 months)

GSM GPRS BTS and UMTS SGSN

Description This product is GSM BTS node which provide the radio interface to the GSM mobile subscribers

Team size 45

Duration Oct'2003-Nov'2005 (2 Yrs)

Worked as a Technical Leader (Testing) on GSM project and it involves BTS node(GSM and GPRS) test specification writing and functional, load and performance testing on Abis and Um interface using tools like Nethhawk Analyser( to monitor Abis traces), Sofi Simulator(to simulate mobile speed and distance), TEMS ( to monitor air interface ), Load Genaerator, Abis Breaker, etc.

Worked on GSM project in UK(Camberley/Southwood) for 14 months ( from Nov 2002 to Oct 2003 and June 2004 to Sep 2004 respectively) and it involves BTS node(GSM and GPRS) functional, load and performance testing on Abis and Um interface

# Getting thorough knowledge of related specification module.

# Making test specification for

- Installation tests
- System management & porting tests
- Conformance tests as per stack specification

- Regression tests
- Performance tests

Description This product started with 3G SGSN protocols testing like GMM, SM, RANAP and later integrated these protocols for making SGSN node

Team size 2

Duration Nov'2000-Oct'2003 (2.5 Yrs)

Worked as a Sr. Engineer Testing on

# GMM and SM stack/protocol testing at 3G SGSN

# RANAP stack testing at RNC and 3G SGSN

# System level testing for 3G SGSN node for Iu, Gn, Gp, Gr and Gf interfaces(i.e. RNC, GGSN, HLR , etc.) which involves protocols like GMM, SM, RANAP, MAP, GTP-C and GTP-U

# Getting thorough knowledge of related specification module.

# Making test specification for

- Installation tests
- System management & porting tests
- Conformance tests as per stack specification
- Regression tests
- Performance tests

# Writing UNIX shell/Tcl scripts for running the stack executables & environment settings

Domain Wireless

Technology Skills GMM, SM, RANAP Protocols and SGSN interaction with other core network

Bharti Cellular Limited, India

Switching Engineer(GSM technology)

August 1998 - November 2000 (2 years 4 months)

New Delhi Area, India

Ericsson GSM MSC, BSC and HLR Operation and Maintenance

Description This product is GSM MSC which provide the Switching interface to the GSM mobile subscribers

Team size 20

Duration Aug'1998-Nov'2000 (2 Yrs)

Worked as Switching Engineer(GSM technology) with Bharti Cellular Limited, India, for 2 years from Aug, 1998. Bharti Cellular Ltd. is operating cellular services under the brand name Airtel since Aug' 1995 in New Delhi with Ericsson as vendor. Following points are the briefings of the work that I have done & responsibilities:

1. Defining roaming signaling and traffic database related to national & international roaming partners & coordinating & solving problems related to roaming partners & international gateway & siemens K1103 protocol analyzer is used to solve roaming problems whenever required
2. Database preparation for initiation or change in SS7 signaling & traffic routes, B-no. analysis, signaling, etc.
3. Generating & analyzing various traffic reports for GSM nodes( e.g. MSC, HLR ) for future system configuration requirements
4. Operation & maintenance of MSC, HLR, AUC, EIR
5. Definition & acceptance test of SMS ( ) & VMS (Centigram) systems on MSC/VLR/HLR side & solving problems related to these services.
6. Definition & acceptance test of standalone HLR , MSC & IOG20
7. Definition & acceptance test Siemens IVR system on MSC side

Domain Wireless

Technology Skills MSC/VLR O&M and its interaction definition with other GSM nodes like HLR, SMSC, etc.

Tools Used O&M tools

Operating System Windows

Siemens Public

Siemens Public Communication Networks Limited

September 1995 - March 1998 (2 years 7 months)

Gurgaon, India

Siemens GSM MSC and Motorola BTS commissioning and maintenance

Description This product is GSM MSC node(D900) and BTS which provide the Switching interface to the GSM mobile subscribers and radio interface respectively

Team size 10

Duration Sep'1995-Mar'1998 (2.5 Yrs)

Worked with Siemens Public Communication Networks Limited, ( GSM network solution provider ) for two and half year from Sep' 1995 to Mar' 1998 as a Telecommunication Engineer in GSM switching field with following responsibilities :

1. Commissioning & acceptance test of D900 switch
2. Providing maintenance support to Siemens Customers
3. Generating & analyzing traffic reports for MSC to plan the system configuration as per customer requirement

Domain Wireless

Technology Skills GSM MSC commissioning

Tools Used

Operating System Windows

---

## Education

Maharaja Surajmal Institute

Diploma in Electronics and Elec Communication Engineering, Electrical, Electronics and Communications Engineering · (1990 - 1994)

Government boys senior secondary school, R. K. Puram Delhi

Govt. Boys Senior Secondary School, R. K. Puram, Delhi