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## **Career Objective**

Looking for extensive work as a Telecom Testing Engineer where my professional knowledge in telecommunication protocol testing would enable me contributes positively towards the growth of the organization.

#### **Summary**

I have **3+ years'** experience as **Test engineer** in application and protocol Sector & **6.5+ years'** as **RF Engineer** in Telecom domains.

#### **PROFILE SYNOPSIS**

- UE side Testing (Performance, Sanity, Functional, IMS Testing as given in Test Plan) & Network side
  Testing under Conductive & Wireless Environment, From office and Field as well as.
- In Depth knowledge of LTE protocol stacks RRC, RLC, PDCP, MAC.
- Good knowledge of services and functions provided by each layer in LTE protocol stack (Both E-NodeB side and UE side).
- Also having knowledge of LTE architecture with all nodes like E-NodeB, MME, S-GW, P-GW, HSS, PCRF and its call flows.
- Having good knowledge on LTE call Flows, Registration, Attach/Detach procedures, Handovers (Intra& Inter-RAT), SIBs, and MIB.
- Working knowledge of test case execution including Throughput, Handover, Reselections, RACH process, CSFB,
  VoWiFi, CA, DSDS, IMS, RAN, Rank Index, UE capability, PRACH Tx Power test Scenarios.
- Having good knowledge in LTE Network Element Application Protocols S1AP, X2AP.
- Good understanding of **5G SA & NSA architecture** with their call flow.
- Having good knowledge of NR architecture with all nodes like G-NodeB, AMF, SMF, UPF, UDM, NSSF, AUSF, PCF etc. and their call flows.
- Good understanding of 5G Core components (AUSF, AMF, SMF, UDM).
- Good understanding about IMS Registration.
- Knowledge of Log Capturing, Log Analysis, Issue Reproduce, Testing and Review.

#### PRESENT EMPLOYER: -

Company	Client	Designation	Work Period
Marquis Technologies Pvt Ltd.	Reliance Jio	Test Engineer	Mar'23 to Present

## Project-1: -Wonderland DNI(Android device testing)

#### Job Responsibilities

- Responsible for Testing of given Test Cases on Test Plan, almost 150 Test Cases is collected or checked in purpose of collecting logs on QXDM and ELT.
- Performs the testing on the devices having the QUALCUMM CHIPSET like JIO PHONE 5G,, ONE PLUS11, IQOO 7 Pro,
  POCO X5 PRO, using QXDM Tool and also FLASHING the devices using QPST Tool
- Performs the testing on the devices having the MEDIATEK CHIPSET like REDMI K50i, M-80, M-85 etc. using ELT Tool.
- Performs the testing on the devices having the Shennon like Samsung devices Like A14 using Shennon Tool.
- Taking on device log and analyze them using tools like QXDM, QCAT, ELT etc
- SA testing in which we perform **5G NR (SA)-Functional Testing**, **5G NR (SA)-Performance Testing**, **5G NR IMS Testing** and **5G NR (SA)-DSDS**.
- Performed NR and IMS Functional testing, Sanity, Functional, Testing as given in Test Plans
- Log Analysis for the scenario like NR Registration, LTE Registration, IMS Registration, VoWI-FI Registration and Emergency Call Registration using QXDM, QCAT and ELT Tools
- Collecting logs on QXDM, ELT, Wireshark, and analysis with the help of QXDM, Wireshark, QCAT, ELT etc
- Finding the functional/application issues, Debugging& testing on tools like QXDM, ELT, QCAT, PCAT,
  WIRESHARK Responsible for Test case execution, Log Collection of failure/Issues.
- Flashing devices using tools like QPST, QFIL. Restoring, QCN backup of devices using the tool like QPST.

- Testing terminal features like Cell Selection, Handover (Intra, Inter, IRAT etc.), Cell Reselection (Intra, Inter, IRAT etc.) in both NR & LTE.
- Testing of EPSFB, VONR, VINR, VOLTE, Emergency, Vo Wi-Fi Call using the tools and analyzing their call flows.
- Testing of Call Hold, Call Unmold, Mute, Unmute, Conference Call, Call Forwarding (Conditional, Unconditional).
- Performing Downlink & Uplink Throughput Testing in Good & Poor Coverage area.
- How UE Decoding of PSS, SSS & PBCH in LTE and decoding of SSB in NR. SIB decoding in both LTE & NR.
- Logs Analysis of NR like RRC Setup, RRC Reconfiguration, RRC Reestablishment, RRC Reject, Registration
  Request, Registration Accept, PDU session establishment procedure.
- Attach success, Detach Success, CS Service Notification, Extended Service Request, UE Capability information, SIB,
  MIB, PHICH, PDCCH, PDSCH, PUCCH, PUSCH, Security mode command, RRC Connection Release, DRX Cycle
- Performed NR-VoNR End to End Testing and log analysis for the failure causes.
- Involved in the customer raised issues and reproduced the test accordingly.

## Project-2: -Wonderland DNI(Apple device testing)

- Sanity, functional testing & full scope testing of iPhone& iWatch devices
- Out of service shield box testing& test case execution & retesting issue.
- Performing RAN, service-based handover, Cell Selection, Cell Reselection, Throughput, call performance, IMS, VoWiFi, CA & DSDS.
- Mobility for issue retest & test case execution.
- Testing different chipset devices using diagnostic tools like QXDM, QCAT, Atlas, Shennon, ELT, Wireshark.
- Carry out Basic analysis to find possible issues using captured logs.

#### **Technical Skills:**

• Operating System: WINDOWS

Testing Tools- QXDM, QPST, QFIL, QCAT, ELT, Atlas, WIRESHARK.

Technology: LTE and 5G/NR

#### PREVIOUS EMPLOYER:

Company	Client	Designation	Work Period
Broadvission Consultant	Ericsson Global India Pvt Ltd	RAN Test Engineer	April'22 - Mar'23
Teleysia Network Pvt.Ltd.	Vodafone idea Ltd	RF Engineer	Apr'21 -april'22

# Project-VIL project Job Responsibilities

- Plan and executed Physical optimization strategies for 4G including antenna adjustments and power level optimization.
- KPI monitoring & KPI improving, Neighbor optimization, Cluster drive.
- Analyzed drive test log to identify reason for poor KPI's, such as RRC connection success rate, CSFB success rate, data drop rates and provide actionable recommendation.
- Optimized low DL throughput Cells through Inter or Intra load balancing CA and parameter adjustment.
- Reduce overshooting cell in cluster by optimization & improve coverage & quality of network.
- Troubleshoot areas with poor RF performance. Request drive tests, analyze data and recommend network changes as applicable.
- Make plan for capacity addition based on current site utilization.

 Overseeing and executing Drive test analysis of 2G & 4G coverage and quality, handover analysis and missing neighbor analysis

## **Used Tools- Mycom, Citrix**

Company	Client	Designation	Work Period
DNG Telelink Pvt Ltd	Vodafone idea Ltd	RF Engineer	Nov'19 - Mar'21
Insta ICT Solution Pvt ltd	Vodafone idea Ltd	RF Engineer	Dec'18 - Nov'19
Wave Telecomm	Vodafone idea Ltd	RF Engineer	Apr'18 - Nov'18
Cellasia Infocom Pvt ltd	Idea Cellular Ltd	Drive Test Engineer	Aug-15 - Mar-18

## **Job Responsibilities:**

- Project End to End Co-ordination (Customer Handling). Make plan for optimization based on KPIs and customer complaints.
- Manage and coordinate a team of drive test engineers.
- Overseeing and executing Drive test analysis of 2G & 4G coverage and quality, handover analysis and missing neighbor analysis
- Handling of Daily TSG Complaints.
- Make plan for optimization based on KPIs and customer complaints.
- Handling of Monthly Data QOS Activity
- Planning of indoor solution including IBS and New Site and Small cell as per Network.
- Solving out customer complain and also carrying out network survey.
- Report Making tools- Mycom, Citrix, Tems Discovery
- Data drive (2G, 3G &LTE) and prepared data drive reports.
- Prepare Report of OADT and IDT.

## **Technical Skills:**

- Operating System: WINDOWS
- Optimization tools- Mycom, Citrix, TEMS
- Planning Tool-Mapinfo 11,Google Earth

# **Professional Qualifications/Education:**

2013 Bachelor of Engineering in Electronics and Communication from Shri Balaji Institute of Technology and Management, Betul (M.P.).

2009 12<sup>th</sup> from Gyandeep Higher SecondarySchool, Pathakhera, BETUL (MP).

2007 10<sup>th</sup> from Satpuda Higher Secondary School Ghodadongri, BETUL (MP).

## Personal details:

Name : Pawan Verma Father's Name : Mr. Naval Verma Date of Birth : 9-Jan-1991

Address At post Bhayawadi, BETUL(MP),460440

Marital Status : Married

Language Fluency : English and Hindi.

**Declaration:** I here by declare that the information given above is true to the best of my knowledge & belief.

#### Pawan Verma