



JOB RECRUITMENT PROFILE

Title	Quality Assurance Test Engineer
Division	Telecoms
Reporting to	Service Deliver Manager
Starting Date	01 April 2019
Nature of Employment	Fixed-term Contract
Location	Johannesburg

BACKGROUND

ATIO(www.atio.com) is a South African ICT services company based in Rivonia, Johannesburg. ATIO has been in existence for over 20 years and lists many of South African's leading companies as customers. Our customer footprint extends across the continent of Africa. The telecoms division provides the following specialist services to the telecommunications industry in these territories:

Mobile network services

- Mobile network benchmarking
- RF planning and optimization
- Site integration testing and acceptance
- Cluster and network KPI acceptance testing
- Mobile Data tariff and notification testing
- MAP Protocol, USSD Push and NI USSD testing
- Qos traffic manipulation and testing
- Cluster and network KPI acceptance testing

IP service assurance

- Pre-launch service emulation testing in the mobile core
- 3G, HSPA+, LTE, Wifi traffic simulation QA testing
- IP performance testing
- Cyber security testing
- Compliance testing

Quality of customer experience measurement and management

- Mobile data customer experience emulation tools

JOB DESCRIPTION & KEY RESPONSIBILITIES

We require the services of a Quality Assurance Test Engineer on a contract basis for a minimum period of 12 months.



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This engineering position provides you with an opportunity to work closely with leading Mobile Network Operator/s and network vendors on wireless technologies such as UMTS/HSPA/LTE as well as USSD and SMPP services. You will be responsible for the design, integration of the traffic generating tool to emulate the core-network entities in within the UMTS/HSPA/LTE networks also reverse engineering of C++ scripts to enable USSD and MAP protocol testing. The role involves a lot of customer interaction within the Service development, Core Data Network and Operations team, therefore an ability to work in a multi-disciplinary team environment is important.

Key responsibilities include amongst others:

- Configuration and modification of C/C++ based scripts to simulate MAP protocol and USSD messages over the mobile network.
- Integration of USSD (Pull&Push) load generation tools to mobile operator networks.
- Interact with developers to investigate and analyse the performance of Online Charging Systems over Diameter on the UMTS/HSPA/LTE networks.
- Act as the main technical resource for testing UMTS/HSPA/LTE networks within the service development and quality assurance department.
- Support the service development teams with capacity testing solutions to address network operator growth and expansion plans covering all network entities – working with multiple equipment vendors.
- Analysing of Signalling Gateway Stack (SigTran and TDM) and TCP/IP issues on the pre-production network environment.
- Configure protocols and parameters to match DUT (Device Under Test) on the EPC (Evolve Packet Core Network) entities.
- Technical document writing.

SKILLS AND EXPERIENCE

- Experience in support, design, or evaluation of cellular (UMTS/HSPA/LTE) systems.
- Proven track record with innovative problem solving and hands-on experience with UMTS/HSPA/LTE network design, network troubleshooting in wireless operator working environment is required
- Background in 3GPP protocol standards, design, development, integration and verification, call processing of cellular (GSM/UMTS/LTE) networks.
- Experience with data services including knowledge of protocols such as TCP/ IP is required
- Experience with Linux/Unix systems is preferred
- Understanding of IPTV and Internet Streaming protocols
- Deep understanding of MAP protocol, USSD or Signalling gateways
- Knowledge of interworking between Intra/Inter 3GPP networks is preferred
- Programming/scripting skills in Perl, SQL, Java, VB & Macros are a strong plus

QUALIFICATIONS

- ✓ Degree (BS) in Electrical / Electronics & Communication Engineering/ Telecoms



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ADVANTAGEOUS

- ✓ Academic course and projects/research work in some of the following areas:
 - Digital Communications,
 - Mobile Communications,
 - Communication Theory/Systems,
 - Computer networks (TCP/IP),
 - Wireless Networks
- ✓ Excellent Excel skills
- ✓ Experience with Cisco; Juniper, Linux/Unix, MySql, Java, C++ etc.

CHARACTER TRAITS

- Excellent written and verbal communication and presentation skills are required
- Ability to work under pressure and meet deadlines
- Demonstrates initiative with a results orientation
- A curious mind
- Self-motivated and able to work as a member of a team
- Customer orientated and results driven
- Great analytical and problem solving skills
- Ability to work in a team environment
- Prepared to work overtime as and when required
- Ability to identify opportunities and capitalise on them
- Achievement driven

REFERENCES

References will be required to validate the above, at the request of ATIO.

REMUNERATION

Fixed basic commensurate with candidate's experience and qualifications

- Other benefits to be discussed.