



RF ENGINEER

COMPANY: e2E SERVICES LTD.
JOB REF: RES.063
TYPE OF ROLE: PERMANENT
PRIMARY LOCATION: WELWYN GARDEN CITY, HERTFORDSHIRE
CLIENT LOCATIONS: LONDON



Our Company

e2E has been at the forefront of innovation in the space sector, specialising in satellite communications, for two decades, offering to all our world-wide stakeholders unrivalled expertise to design, develop and operate state-of-the-art solutions and systems. Our portfolio of consultancy services and technology know-how covers the entire spectrum of any satellite communication project, from market opportunity sizing and end-user requirements down to ground network development and operations. To both commercial and defence related domains, we also offer unique modular and agile technology to enable a more user-friendly and accessible use of satellite communication resources.

Innovation and ingenuity are the guiding principles of anything we do for our customers. Working with e2E requires a high level of dedication and personal motivation, commitment and a drive to continually seek to strive to improve – and the results consistently achieved over the years, at both personal and team levels, are outstanding and make e2E a great place to work.

Job Description

Our team is involved in establishing the assurance and test programmes for satellite communications networks for both civil and military customers. These networks can involve GEO, MEO and LEO satellite constellations and modern multi-purpose complex communications payloads.



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Our team supports the testing and validation of our clients' ground segment operations, ranging from hands-on configuration of RF gateways and satellite simulators to running test campaigns for new features and devices. Additionally, e2E have a history of helping our customers procure the next generation of land and maritime terminals and managing the integration of these systems on platforms for use in the most challenging of environments.

e2E requires an excellent understanding of RF communications and a good appreciation end user devices. The successful candidate will have system level breadth and trouble-shooting depth. This interesting and varied and hands-on work requires both test systems and systems engineering knowledge.

The successful candidate is ideally expected to be able to demonstrate experience of many - but not necessarily all - of the following skills, experience and responsibilities.

Key Responsibilities

- Oversee design and layout of communications hardware; configuration of RF / gateway devices and satellite simulators / tools.
- Managing reference test beds and associated facilities.
- Development and execution of VV&T (Validation, Verification and Testing) test cases which will incorporate IP-based service networks, ground systems and satellite radio networks.
- Identifying and troubleshooting system communication paths, capacity performance and network devices as well as conducting post-test data analysis and reporting.
- Creation of test reports to document issues and assist development with the investigation and resolution of issues.
- Review/comment on 'testability' issues, obvious design flaws, anticipate data collection points and develop plans for and conduct anomaly test and analysis as required.
- Assist with the design, development and preparation of strategies and plans; assist with specifying environments, facilities and equipment for complex satellite networks.
- Constructively contribute to, and otherwise support, the development of other associated elements and activities.

Skills, Character and Experience

- Experience in a RF environment ideally gained in via a satellite communications operator.
- Experience in creating test procedures / cases / scripts in one or more of: satellite payloads (classical communications), ground systems, mobile and satellite radio networks, service networks or IP networks.
- Willing to travel nationally and internationally where required (project dependent, short durations for example to support test execution campaigns).
- To be able to work as an integral member of a highly focused team; a team player who is self-motivated and enthusiastic even when under pressure.
- Experience in testing and/or fault analysis and faulting tools.



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- Good customer-facing and communication skills with ability to produce and present clear, concise and unambiguous presentations to customers and other clients
- An ability to develop innovative solutions to defined problems; adaptable to new requirements and changing priorities.
- Awareness of both commercial and technical issues.

Essential

- A sound technical engineering background.
- Graduate with a good Honours or Masters university degree or other qualification in a space / engineering discipline or STEM subject; equivalent qualifications and/or experience will be considered as an alternative.
- Good knowledge of satellite communications systems design ideally including a good understanding of access technologies, signalling protocols, antenna design and propagation.
- Understanding of RF propagation theories and associated experience of ground station RF equipment, ideally to include experience of RF circuits, RF systems design and test (including simulators/tools).
- Experience of producing communications link budget analysis and design.
- Understanding of end user terminals / devices.
- Understanding of satellite system design and modern digital modulation techniques
- An appreciation of systems engineering processes, particularly those related to test activities and operational environments.
- Knowledge or experience of on-board processing payload systems.
- An interest in the space sector and role; a genuine willingness to learn.
- Strong work ethic with a desire to grow knowledge both through mentoring and independently.

Desirable

- Experience or knowledge of space system network design and architecture.
- Previous involvement in VV&T test campaigns: executing tests, collecting and analysing data from tests, communicating results and anomalies to test management; experience to have been gained in one or more of system end-to-end testing, stand-alone/integration testing, factory acceptance testing or operational networks.
- Signal processing knowledge and DSP experience.
- Experience of IP / networking protocols and devices; a basic knowledge of Linux operating system would be an advantage as would some software coding experience (e.g. Python).
- Excellent writing and reporting skills and the ability to relay information to clients through both presentations and formal test reports.
- Experience with ESA project processes / familiarisation with ECSS and other standards.
- Experience of office tools (e.g. Outlook, Word, Excel, PowerPoint).
- Desirable to have experience of specialised analysis, simulation and system modelling/testing tools (e.g. MATLAB/Simulink).



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- Skills and experience that underpin the role's 'Key Responsibilities'.

Salary

- Attractive compensation package dependent on skills/experience plus a growing list of Company benefits
- By submitting your CV/application you are consenting to e2E Group using and storing information about you for monitoring purposes relating to your application of future employment. This information will only be used by e2E Group.

e2E Group is committed to achieving workforce diversity and welcome all applications irrespective of social and cultural background, age gender, disability, sexual orientation or religious belief.

