

MISSION CONTROL APPLICATIONS ENGINEER



COMPANY: e2E SERVICES LTD.
JOB REF: RES.014
TYPE OF ROLE: PERMANENT
LOCATION: DARMSTADT, GERMANY



Our Company

We have been at the forefront of innovation in the satellite communications industry for two decades, offering to all its stakeholders unrivalled expertise to design, develop and operate state-of-the-art solutions and systems, world-wide. Our portfolio of services and technology know-how covers the entire spectrum of a satellite mission, 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 improve things but the results our Group has consistently achieved over the years, at personal and team levels, are outstanding and make e2E a great place to work.

Job Description

We are expanding our team and are seeking a **Mission Control Applications Engineer** based in Darmstadt, Germany working as part of a multi-nationality project team.

In the context of Satellite Monitoring and Control systems in an operational Mission Control Centre environment, the applicant will support software development and maintenance of components and applications designed with an objected-oriented approach and client server architecture.



MISSION CONTROL APPLICATIONS ENGINEER

The development cycle includes the typical phases (requirements, design, development, testing) with formal procedures related to configuration control, verification (against the software requirements) and roll-out into operations.

Development ranges in a mixed Windows and Unix environment, from fixing problems and engineering changes, technical support to the continuous operation of the system, including analysis, investigation, and resolution with creation of appropriate documentation.

Key Responsibilities

Maintenance and Evolution activities

- Software maintenance and development using C++ and Java engineered in Windows and Unix environments, interacting with Commercial-off-The Shelf (COTS) products.
- Preventive maintenance: Support to the 24/7 smooth running of facility software applications and their operating systems.
- Corrective maintenance: Investigation into relevant anomalies and solutions, their documentation and classification, with suitable follow up of the delivery of software updates.
- System evolution: Analysis of user-driven requirements, generation of software requirements, design, implementation, and verification/testing activities.
- Verification/testing: Generation of verification/test procedures and delivery documentation, participation in verification and regression testing activities at unit and system level, participation in factory acceptance testing campaigns and execution of on-site verification testing at integration level.
- System upgrades: Analysis, planning and management of application, operating system and COTS upgrades and reconfigurations, considering any compatibility issues.
- Definition and management of technical documentation and procedures in support of these activities.

User Support

- Applications support: Software and technical support to the end-users of the application software by request.
- Attendance in meetings: Participation in technical, progress and team meetings, submission of reports as required.
- On call service: On occasions, provision of standby/call out support to operations and support to critical operations out of normal hours.
- Additional support: Provision of support to other areas and programs as required, for example, supporting the simulations infrastructure.

Technical Management

- Documentation: generation and updates of technical documents
- Meeting participation: participation in technical, progress and team meetings as needed and

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MISSION CONTROL APPLICATIONS ENGINEER

requested.

- Routine reporting: preparation and production of routine reports, as necessary
- Supplier management at technical level: acting as point of contact with the contractor for technical discussions, review of technical documentation from the contractor, organizing periodical technical meetings with the supplier.

Software Engineering Framework Support

- Analysis activities focused on a common software engineering framework for the GSI Mission Control Applications and Tools Team
- Development of tools implementing this software engineering framework

Skills, Character and Experience

- University degree in a relevant engineering discipline.

Domain Skills

- Extensive experience in the definition, development, and maintenance of Mission Control Functions software applications for GEO and LEO space missions, experience in the whole life cycle of development of typical applications like telemetry and telecommand chains, automation (schedule and procedure execution), operations preparation, analysis, etc.
- Good knowledge and understanding of space related standards (ECSS and CCSDS) related to space-to-ground interfaces.
- Knowledge with ESA mission control products, such as MICONYS suite (e.g. SCOS- 2000, NIS, etc...);
- Knowledge of third-party satellite mission control products such as APEX, SCOPE, MOIS, EPOCH or similar products.
- Spacecraft simulation environments and systems,

System Development & Maintenance Skills

- Extensive experience in software development and maintenance following formal software life cycle processes resulting in multiple customer deliveries. This includes production of requirements, design engineering artefacts and implementation reflecting corrective and evolution software maintenance activities as well as new applications definition.
- Extensive experience in ground segment AIV related activities (test procedure generation, non-regression testing, requirements verification and validation).
- Software support to other ground segment functional teams.

Software Engineering skills

- Extensive experience in designing and developing software components and applications using Object Oriented (OO) approach (including design patterns).
- Extensive experience (minimum 5 years) designing, developing, and programming software

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MISSION CONTROL APPLICATIONS ENGINEER

applications using C++ and Java under both Windows and Linux platforms.

- Experience with formal software development environments such as Eclipse IDE and Microsoft Visual Studio.
- Experience developing interacting middleware components and application using TCP/IP and CORBA.
- Experience developing software components and applications making use of Web Applications technologies client and server side (Tomcat, JavaScript), HTML5.
- Experience in the development of software components using Open-Source solutions like Eclipse and Apache products (e.g., Karaf, ActiveMQ).
- Experience developing software applications using ODBC/JDBC bridges and programmatic interfaces to RDBMS engines.
- Eclipse Plug-in development.

Documentation and Configuration Management Skills

- Very good knowledge of MS Windows Office Suite applications and experience with documentation management systems.
- Experience in using configuration Management and anomaly reporting and tracking tools

Salary

- Competitive salary per annum 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.

