LEO (Low Earth Orbit) Constellation and Global Ground Network Fault Analysis Visualisation Tool

Company: OneWeb

Location: West Works, 195 Wood Lane, W12 7FQ, London

Code: 18/63

Company Description:

OneWeb is on a mission to provide affordable internet access for everyone in the world. Founded in 2012, with a goal to connect every unconnected school in the world, OneWeb has expanded its mission to take on closing the digital divide by 2027 and providing affordable access for more than 4 billion people who are unconnected today. Through a global constellation of low Earth satellites orbiting Earth, OneWeb will provide low latency broadband access to even the most remote parts of the world.

If building the infrastructure to connect 2 million schools is something you would like to make happen, then joining OneWeb may be a great personal and career move. We can provide an intellectually challenging workplace and fast-growing opportunity with a clear purpose. Come join the team that is making affordable communication ubiquitous on a global scale.

Project Description:

This is a unique opportunity to be part of one of the most exciting space companies in the world! The successful candidate will be a key member of our Communications Ground Segment (CGS) team operating our world class UK Global Network Operations Centre (UK GNOC). The UK GNOC monitors OneWeb's network for alarms and faults, and performs Fault Diagnostics, Isolation and Recovery (FDIR). He or she will work within the Network Operations team and utilize their technical skills to deliver the described project.

One of the most challenging aspects of OneWeb's operations team is the need to identify trend signatures that will indicate potential service anomalies. To enable this, a significant amount of data from our Flight Management, Ground Network, WAN and Core Network Segments will need analyzing and incorporating into a Graphical User Interface (GUI) that can be utilized by the OneWeb Global Network Operations Centre (GNOC) team. This information will form a critical part of the Situational Management function that will lead anomaly investigations on the OneWeb Constellation and Ground Network. The development of the GUI will integrate data sources such as:

- Satellite Communication Schedule File (SCSF);
- Satellite Resource Schedule File (SRSF);
- Ground Network Segment Antenna Control Units (ACU's);

- Individual Block UpLink Convertor (BUC) Amplifiers;
- 3GPP EPC protocols used to validate traffic performance.

The selected candidate will contribute to the project by assisting with the following tasks:

- Creation of scripting tools that will validate the transfer of data and files between subcomponents;
- Design of a GUI that will display, in near real time, signatures that will allow the operations team to visualise the trends and isolate service anomalies.

Applicant Specification:

- Recent graduate with a background in Computer Science or other technical/ engineering field and with a keen interest in the space sector, in particular, the advancement of LEO operations;
- Experience working with Python, C#, Java, JSON languages and formats;
- Experience working in a Linux environment.

Further details:

8 weeks minimum fixed term contract to be agreed with successful candidate but nominally with a start date around the 1st week of January 2019, with a completion (at latest by 28 Feb, 2019). Salary is £1,500 per calendar month.

Closing Date for Applications: 5pm on the 28th November, 2018

Applications should be made through the online form attaching a CV, before the closing date. Please note that elements of the form left incomplete will be deemed to render the application ineligible. They will be checked for eligibility and forwarded to the employer.