**Statement of Requirement Document for RAFX 5G Trial**

**GENERAL REQUIREMENTS**

1. RAF Leeming, through a collaboration between RAFX and 90 Signals Unit (SU), intends to establish a 5G Network under the auspices of a Research and Development Trial for a period of 24 months.

**BACKGROUND**

1. The purpose of establishing a 5G Network is to facilitate an experiment of both the network itself but more widely to test a range of capabilities across the Internet of Things Applied (IOTA) on behalf of the RAF and Wider Defence.  The 5G Network will deliver the digital ‘backbone’ for testing various capabilities in conjunction with Strat Comm JHUB and the Rapid Capabilities Office (RCO).  RAFX/90SU will be able to facilitate a multitude of digital capabilities in a safe and secure environment, managed internally with the chosen vendor and adhere to all the necessary Security and Accreditation requirements mandated by MOD.
2. RAFX has liaised with the Strategic Support Programme (SSP) and offered to test capabilities that would also support this transformable programme and in doing so ‘accelerate’ activity in an agile and adaptable manner utilising an open system architecture.
3. A PIN was submitted in Dec 20 on which multiple vendors have sought additional information.

**DELIVERABLE REQUIREMENTS**

1. . The requirements of the trial are set out below in priority order:
	1. The system should use UK End-to-End components - where possible no foreign components, particularly made in China (e.g. Huawei).
	2. The equipment shall be provided, installed and maintained at no cost to MOD. The equipment is limited to the necessary aerials, amplifiers required on the Mast and the Fibre to link point A to point B (A = Mast, B = IOTA Test Bed). MOD will provide the necessary ducting to install the Fibre between points A and B.
	3. At the end of the trial the equipment shall be decommissioned and removed at no cost to MOD.
	4. The system shall access the OFCOM shared spectrum in the frequency range of 3.8 to 4.2 GHz and with 100 MHz of Bandwidth.
	5. The system shall access 1800 Mhz shared spectrum.
	6. The provider shall deliver a network edge (offload) with supply to low latency data routing within the bounds of RAF Leeming.
	7. Unserviceable or damaged equipment provided for the duration of the trial shall be replaced within 72 hours at no cost to MOD.
	8. Engineering support in relation to the provision of the network and IOTA testbed is to be conducted in collaboration with RAFX and 90 Signals Unit personnel and at no cost to MOD.
	9. The supplier and its personnel installing the network and collaborating on the IOTA testbed must hold a MOD Security Clearance (SC).
	10. The system needs to be User Agnostic (i.e. not tied or linked to a network provider such as EE, O2, Three, Vodafone etc).
	11. The system shall meet all MOD security protocols and only approved devices and capabilities will access it.
	12. The provider must be willing to work in collaboration with RAFX and selected industry and academic partners to test a range of IOTA capabilities.
	13. The provider shall agree to a ‘roaming’ agreement with any other operator in order to allow an expansion of the capabilities that could be tested against the IOTA test bed. Any such agreement to collaborate at RAF Leeming will be at the discretion of the Station Commander.
	14. All data captured throughout the network and though the IOTA test bed will be shared freely amongst collaborators and not owned by any one organisation and will be accessible at no costs between approved stakeholders. The only exception to this requirement is data of a sensitive nature which needs to be held by MOD stakeholders only.
	15. The equipment provided by the supplier must adhere to the health and safety requirements of the provisioned MOD ABACUS Mast.
	16. The vendor must abide by Data Protection Regulations and GDPR rules in respect to information provided by unit personnel authorised to ‘roam’ on the network from their personal devices.