WEST YORKSHIRE POLICE

ROLE PROFILE

Role Title	Digital Forensic Investigator - Technical Specialist	***Reporting to***	Senior Digital Forensic Investigator
Section	Digital Forensics Unit	***District/Department***	Protective Services Crime
Tenure		***Rank/Grade***	SO2

Part A – JOB DESCRIPTION

Overall purpose of role	To conduct intelligence led digital forensic examinations and investigation on digital devices, providing evidence and expert interpretation of the evidence in a format acceptable to the court. Assist in ongoing investigations, both in force and to external forces, by conducting advanced download techniques and/or repairs on digital devices when all other conventional methods have been exhausted. Specifically responsible for, the continued use and development of advanced digital forensic recovery techniques to assist investigations.

1. Lead by example and behave in line with the Police Code of Ethics ensuring that the force values and behavioural expectations are clearly understood and considered by managers, officers and staff in their decision making and actions; reinforcing and influencing them through all interactions and processes.
2. Undertake proactive and reactive environmental scanning, research and dissemination of knowledge for new investigation techniques, tools, software and technologies that will improve the quality and quantity of evidence produced or lead to other improvements in procedures.
3. Develop in-house advanced data recovery techniques and solutions for proprietary systems and critical cases where devices are beyond repair or unsupported by conventional tools and methods
4. Liaise with external parties, such as software vendors, to develop technical relationships that take advantage of cutting-edge solutions to advanced digital forensic issues.
5. Take a lead responsibility in developing DFU capability in the field of existing and emerging advanced digital forensic techniques including Chip Off, Vehicle forensics, JTAG, eMMC, repairs and data download operations requiring device disassembly.
6. Develop board-level diagnostic and repairs techniques for electronic devices to aid complex investigations, ensuring quality standards compliance.
7. Assist in the efficient and effective securing, retrieving and analysing of evidence of a variety of digital devices, informing investigation teams of findings, and utilising specialist and proprietary software and hardware, with responsibility for ensuring the continuity and integrity of all exhibits and processes throughout.
8. Provide specialist input and guidance to DFU staff, investigating officers and external forces when carrying out advanced digital forensic techniques on digital devices. Provide operational mentorship to DFU staff and liaise with DFU Training Lead to ensure advanced recovery technique skills are distributed through the department as appropriate.
9. Provide expert advice and guidance to Investigating Officers to ensure that Digital Forensic investigations are focused and intelligence led, and that the continuity of all exhibits/intelligence is maintained throughout. Be responsible for the provision of expert guidance to officers during pre and post operational briefing. Produce supporting evidential reports and detailed packages for OICs; ensuring all packages are produced to the highest standard and ensuring that full disclosure has been provided in accordance with guidelines to support a successful prosecution and sentencing outcomes.
10. Ensure compliance with departmental and organisational standards and Quality Assurance processes, working to and in compliance with ISO17025 and ISO17020 standards in line with the Forensic Science Regulators requirements and Codes of Conduct. Participate in quality audits, competency checks, peer-reviews, and identify and report any non-conformities and issues promptly to the ISO Technical Manager.
11. Liaise with the Digital Forensic Unit Victim ID Lead to maximise opportunities for Victim Identification from CSE investigations and employ proactive steps and processes to identify Victims of CSE during digital investigations you conduct.

12. Represent the DFU at CPS Case Conferences, liaise with Prosecution and Defence legal teams, Defence Experts, and members of Judiciary. Attend court proceedings when required in the capacity of the Digital Forensic Investigator and Digital Forensic subject matter specialist witness to explain the evidential investigation processes in order to confirm the validity of the evidence found.

Dimensions *(Financial/Statistical/Mandates/Constraints/No. of direct reports)*

- Responsibility for the advanced digital forensic examination of approximately 150 devices per annum.
- Act as a Digital Forensic 'specialist witness' in both internal and external investigations.
- Provide Streamlined Forensic Reports (SFR) for all examinations completed and their findings for Investigating Officers, CPS or other requesting agency.
- Work at all times in compliance with departmental policies and procedures, Quality Standards Manual, and Forensic Science Regulator Code of Conduct applicable to Digital Forensics.

Work/Business contacts

Internal: DFU Staff, Victim Identification Officer, District Safeguarding, OIC's, SIO's, HMET staff, Crime Managers, NPT Supervisors, Crime Scene Examiners, Force Scientific Support Unit, Protective Services Crime Specialist Units. Police Officers and staff at all levels.

External: Regional Cyber Unit, Regional Scientific Support Unit, Crown Prosecution Service, CTU, National Crime Agency, CEOP, Other Police Forces, Suppliers, Prosecution / legal teams, Home Office

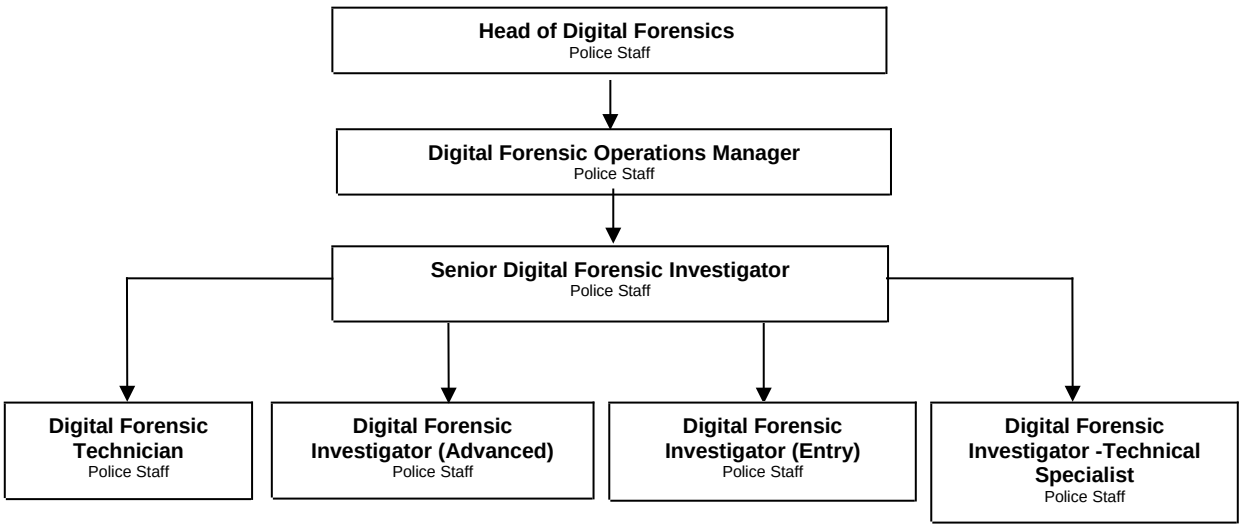
Expertise in Role Required (At selection - Level 1)	**Essential or Desirable**
• Educated to degree level in a Digital Forensic or Electronics based discipline and/or significant experience of working with electronic devices and/or significant training in this area	Essential
• Advanced knowledge and awareness of vulnerabilities within common operating systems, file systems (Windows, MacOS, Linux, Android / iOS), and applications	Essential
• Advanced knowledge and experience of digital device electronics, including physical repairs and diagnostics, board schematics and components	Essential
• Aptitude for problem solving in a methodical and orderly manner; able to work under pressure to imposed deadlines and decision-making.	Essential
• Willingness and ability to complete the core courses in relation to the recovery and analysis of digital evidence, as specified by NPCC.	Essential
• Willingness and ability to complete training courses in relation to advanced digital forensic techniques, e.g. Chip Off, Phone repairs, JTAG.	Essential
• Has experience in the Forensic examination of digital devices and use of forensic software applications for the examination of devices. (e.g. X-Ways, Oxygen, XRY, UFED).	Essential
• Knowledge and understanding of the Best Practice Guidelines, ISO 17025 / 17020 and Forensic Science Regulatory Standards applicable to Digital Forensics, as well as relevant criminal laws, procedures and legislations.	Desirable
• Has experience in preparing complex digital examination reports and has / is able to present digital evidence in a clear and professional manner within Court proceedings.	Desirable
• Knowledge and understanding of the definitions of Abusive Imagery categorisation guidelines, Victim ID processes, and the CAID system.	Desirable
Other (Physical, mobility, local conditions)	
• Physical and emotional resilience to deal with abusive and offensive imagery depicting extreme violence, obscenity and depravity; including graphic images of child abuse. Post holder must be willing to undergo regular Psychological Assessments.	Essential

• Full current UK / European driving licence.	Essential
• Willingness and ability to travel for business purposes.	Essential
• Willingness to work flexibly where required to meet departmental and organisational need and demand.	Essential
• Successfully undergo vetting procedures to Management Vetting (MV) level	Essential

Expertise in Role - After initial development - Level 2

- Able to conduct detailed digital forensic examinations on computers, mobile telephones and other digital devices; understanding complex data and being able to present and explain findings and processes written and verbally in a non-technical form to investigating officers, CPS, counsel, and court proceedings as necessary, acting as Digital Forensic expert.
- Has successfully completed forensic examinations on a range of digital devices requiring advanced techniques such as board-level diagnostics and repair, Chip Off, eMMC and JTAG and has provided advice and mentorship on lower-level techniques to DFU staff.
- Has knowledge of and successfully completed accredited training in relation to the grading of child abuse imagery and abusive / obscene material, including Victim Identification processes, and can apply these to digital investigations that they are conducting.
- Ability to successfully utilise and have good knowledge of a variety of electronics, forensic hardware and software tools relevant to the role and has developed new techniques to examine digital devices.
- Has understanding, adheres to, and promotes the ISO17025 and ISO17020 standards, FSR Codes of Conduct and the NPCC best proactive guidelines applicable to Digital Forensic examinations and analysis.
- Awareness of criminal law, legislations and procedures applicable to the role and Digital Forensic investigations, Victim Identification processes.
- Has successfully completed the recommended internal, NPCC and external training courses in relation to Digital Forensics and advanced recovery techniques, and other mandatory online training.

Structure



PART B – COMPETENCIES & VALUES

Competency and Values Framework – http://www.college.police.uk/What-we-do/Development/competency-and-values-framework/Documents/Competency-and-Values-Framework-for-Policing_4.11.16.pdf

Level 1 – Practitioner

PART C - DEVELOPMENT OF ROLE

Expertise in Role (Advanced - Level 3)

- Developed a demonstrable expert knowledge and understanding in the field of digital forensics and advanced techniques
- Has successfully managed and investigated enquiries involving multiple suspects/victims and exhibits.
- Can demonstrate a higher level of knowledge around ISO17025 / 17020 regulatory standards and has assisted the department in developing and maintaining compliance to these standards.
- Has directly contributed to the successful arrest and conviction of offenders through the digital investigation of Online CSE distribution of Child Abuse Imagery and other serious offences, and assisted in the identification of victims of CSE.
- Be able to identify storage capabilities of IoT (internet of Things) devices and develop data recovery techniques
- Continue to develop new techniques to provide comprehensive extractions of data in relation to digital devices.
- Be an expert within the field of advanced digital forensic techniques to keep up with the changing digital landscape

PART D - ACCESS & VETTING

Standard IT Access	Default
Police Building (Perimeter and Zone access)	Perimeter Access to all Police Buildings Forcewide
Vetting Level	Management Vetting
Date accepted as a role profile	11 October 2022