



## **DIGITAL FORENSICS SPECIALIST GROUP**

### **Notes of the sixteenth meeting, held at 11:00am on Monday 13 July 2015 at the Home Office, London**

#### **1.0: Introduction**

1.1 The Chair welcomed all to the sixteenth meeting of the group, in particular Oluwajuwon Oladimeji, who was providing an update on the HO Forensic Science Strategy for the Digital Forensics Specialist Group (DFSG).

1.2 See Annex A for the full list of attendees and apologies.

#### **2.0: Minutes of the previous meeting on 16<sup>th</sup> December 2014**

2.1 The chair requested that any comments on the previous DFSG minutes of 16th December 2014 be sent to the Secretary.

**Action 1: Members to send any comments on the previous DFSG minutes (16 DEC 2014) to the Secretary.**

*Actions of previous meeting*

2.2 The chair reviewed the actions from the last meeting:

- Action 1: The chair would approach Paul Daniels of the National Crime Agency (NCA) to arrange a representative for DFSG.
- Action 2: Additional practitioners might be needed on the DFSG working groups, but not DFSG itself.
- Action 10: The ISO periodically reviewed its standards. ISO17025, on testing and calibration laboratories, was being reviewed, but due to the publication of a new ILAC-G19, it was unlikely that there would be significant changes, that would impact the forensic science community.

2.3 The remaining actions were either completed, or were on the agenda for discussion at the meeting.

#### **3.0: NPCC Digital Forensics Portfolio update**

3.1 The National Police Chief's Council (NPCC, previously ACPO) had been developing capabilities for digital policing, with ACC Nick Baker as the NPCC digital forensics lead. Their work was coordinated with work led by Amanda Cooper on the Home Office digital forensics strategy. Mary Calam, Director General of Crime and Policing Group, had chaired meetings on how national policing would progress digital forensics.

3.2 NPCC and the UK police forces had supported the FSR's digital validation event on 12th May, had met with the FSR to discuss the scope for digital accreditation, and would progress the work of the Expert Network Group with a meeting on 15<sup>th</sup> July.

3.3 DCC James Vaughan was assisting police forces with procurement opportunities for digital tools and analysis through the CLEP (Collaborative Law Enforcement Procurement) programme

3.4 Work on Streamlined Forensic Reporting (SFR) would shortly lead to an update to the toolkit available to Forensic Service Providers and police forces. The toolkit would include two examples of digital SFRs. SFR was being used by forces in particular for prosecution of illegal child sex images.

3.5 The Centre for Applied Science and Technology (CAST) at the Home Office, had reference material on imaging hard disks, which would be sent to the lead forces in the first phase of work on digital accreditation. Paul Farr was managing on this work, for which documentation was needed. The National Institute of Standards and Technology (NIST) also had material on imaging hard disks, and a check was needed for any related European Network of Forensic Science Institutes (ENFSI) material.

**Action 2: The FSR to follow-up with CAST on their disk imaging material and user requirement, to make it more widely available.**

#### **4.0: Home Office Forensic Science Strategy**

4.1 Oluwajuwon Oladimeji provided updates on both:

- the Home Office Forensic Science Strategy, and
- the forensic and digital data work stream.

4.2 Amanda Cooper was producing a Home Office Forensic Science Strategy as a key Home Office priority, consisting of five inter-connected strands of work, which were:

- Legitimacy
- Forensic futures
- Forensic and digital data
- Supply chain / operating models, and
- Knowledge and Skills.

The first forensic strategy working group meeting was on 2nd July, with the next on 29th or 30th July, in order to produce a draft strategy by September 2015, and publish by the end of 2015. The strategy group was consulting

police forces, NCA, CPS, MoJ, ICO, UKAS and the Biometrics Commissioner. The ministers responsible for this area were Rt Hon Mike Penning and the Home Secretary.

4.3 The HO Forensic Science Strategy would require significant investment, in the context of reduced police budgets and rapid technological developments. The extraction and recovery of data needed to be rapid, but in line with the ISO 17025 testing and calibration laboratories quality standard. Governance was needed to deal with the current fragmentation in digital forensics work within and between forces. The legal framework for digital analysis, in particular the computer misuse act, needed to be fit for purpose.

### **Action 3: Simon Iveson to circulate to DFSG details of the Metropolitan Police Service court cases on retention of custody images.**

4.4 Points raised on digital aspects of the Forensic and digital data work-stream and related issues included:

- Digital forensics was included in the biometrics regulations, although this was not explicit in the legislation.
- Some digital images were linked to names and locations (for example mobile apps taking photographs might record the geographical location automatically, and user of apps might tag photograph with names of people shown)
- Data was now often stored in the cloud (i.e. on protected websites) and under current legislation forensic analysts could not retrieve it from there.
- Open Source digital tools were a risk for digital analysis, because they had not been validated, and so their results could be challenged in court.

4.5 DFSG welcomed the work on the HO Forensic Strategy, and looked forward to the results. It felt that the appropriate colleagues were involved with the forensic science strategy group.

## **5.0: Digital Accreditation Scope**

5.1 The scope for the 2017 digital accreditation deadline was currently wide, as no types of digital analysis had so far been excluded. In particular the scope currently included Cell Site Analysis. But dependencies between different digital analysis methods might alter the accreditation timeline in future.

5.2 There might be too few technical assessors at United Kingdom Accreditation Service (UKAS) for digital analysis, so one option would be to seek additional assessors abroad.

## **6.0: Digital Validation Guidance and reference material**

6.1 Work had been progressing on the digital validation guidance draft, and all of the comments from the consultation had now been dealt with. At the

digital launch event in May, issues had been raised about the user requirement for validation. The work by the NPCC digital forensics portfolio needed to be consistent with the draft, and this could be achieved in various ways. More could be added to the draft on checks, and physical verification. Examples could be given of digital tools, their risks, and the Quality Assurance checks carried out to mitigate those risks.

6.2 In discussion the following points were made about the digital validation guidance:

- Guidance was needed on each of the three steps involved in digital forensics, which were recovery, analysis and then interpretation of digital data.
- A flow chart was suggested in the document to show the sequence of main steps (of validation).
- NPCC digital forensics portfolio would review the usability of the guidance.
- Matt Tart would check with Forensic Science Providers that the document included a broad enough range of examples, although these might be difficult to find.
- DFSG colleagues needed to critically review the guidance, check that they could use it in practice for validation, and provide feedback to Simon Iveson.

**Action 4: Simon Iveson to add indications of example boxes to the digital validation guidance draft and provide it to John Beckwith on 14<sup>th</sup> July.**

**Action 5: John Beckwith to report back from NPCC digital forensics portfolio to Simon Iveson in early August.**

**Action 6: Simon Iveson to circulate the updated Digital Validation Guidance to DFSG for comments.**

**Action 7: Simon Iveson to circulate the video guidance draft to DFSG, based on the original digital imaging guidance.**

6.3 As the earlier version of the validation guidance had been heavily criticised and thus extensively edited, the new draft would need to be issued for a further consultation, before which it would be sent for technical review, in September, to two or three accredited digital forensics providers.

**Action 8: The digital validation guidance to be sent for technical review on 1st September, allowing two weeks for reviewers to respond, and then two weeks for editing in view of their comments.**

**Action 9: The digital validation guidance to be issued for consultation on 1<sup>st</sup> October.**

6.4 Because the next QSSG and FSAC meetings would be in OCT/NOV, too early to approve the guidance, a draft would be submitted, with a note to state that the final version would be circulated by email later.

## **7.0: Cell Site Analysis Guidance**

7.1 The Cell Site Analysis guidance draft had progressed significantly since the last DFSG meeting in December 2014, and it now made specific cell site issues clear.

7.2 A major consideration was whether the document would remain as guidance, or would need to be prescriptive and therefore not be a guidance document, because of poor existing practice in carrying out Cell Site Analysis in criminal cases. For example it was misleading to state to courts that “the cell site report is consistent with the suspect being at the address” or to use the term “best serving cell”. Although FSR appendices normally permitted FSP’s to use different analytical techniques, for Cell Site Analysis standardised methods might need to be prescribed, with other methods stated as not being good scientific approaches. Or to take a more extreme approach, cell site analysis could be regarded as a simple procedure, and the document could be restricted to specifying that procedure.

7.3 Other comments made by DFSG were:

- There were issues with naming conventions and terminology used for cell site analysis, so a glossary might need to be added to the document.
- Presentation of clear cell site maps to courts should be added as an issue.
- The document could be sent out in stages, reflecting the various steps of cell site analysis, although this might take too much time.
- It would be reasonable to produce a draft which would then be challenged, as this would result in a good document in due course.
- No cell site analysis events would be held until the guidance had been revised.

**Action 10: Simon Iveson and Matt Tart to revise the Cell Site Analysis Guidance in the second week of August.**

**Action 11: DFSG to then review the Cell Site Analysis Guidance.**

## **8.0: Questions from the FSR digital forensics validation/accreditation event**

8.1 At the digital forensics validation/accreditation launch event in May, visitors were invited to submit questions to the FSR, and broad answers were given there. DFSG needed to answer all the questions submitted, within the next two weeks.

8.2 In discussion, particular answers to questions raised included:

- ‘Triage’ was a policy decision, and in practice was not restricted to putting tasks in priority order, but also a way of carrying them out.
- The group agreed that for the purpose of the introduction of quality standards, the FSR’s Code and Appendices on digital analysis took primacy over the ACPO (NPCC) guidelines.
- Which ISO standard was applicable, either ISO 17020 for crime scene investigations or ISO 17025 for testing and calibration laboratories, depended on whether the individual was directed on what digital tools to take to the digital scene to carry out the analysis.
- When digital analysis was re-located to a new site, re-accreditation in the simplest case might be achieved by providing sufficient details to UKAS of the new premises, and more complex re-locations might require a UKAS visit.
- Only a digital analysis method could be validated, not a specific tool used in the method. However testing of tools was required, and the test results could be shared between police forces.

8.3 There was a risk of illegal images being overlooked, if examinations of digital devices were carried out at the scene, using basic tools inappropriately, instead of centrally, with a range of tools, by practitioners as part of a wider method. Under the Cheshire Police scheme, specialists would take a range of tools to scenes to carry out this analysis. However desktop computers would continue to be recovered from scenes. It would be problematic if forces transferred their analysis from their police stations to the crime scenes in order to avoid accreditation requirements.

8.4 Digital tools needed to be tested, and the method validated, and then issued centrally by police forces. Problems arose if local units procured tools independently of the centre. Ideally forces would require a validation document when procuring the digital tools. However vendors might not be willing to share these results of tests carried out on their tools.

8.5 Arrangements were needed for police forces to self-report their digital validation and accreditation, including a spreadsheet to record this. The FSR would follow up on these arrangements. Currently the newer (ex NPJA) teams in CAST were managing tracking of police force digital validation.

**Action 12: Once the scope of digital accreditation was agreed, DFSG to collectively answer the submitted questions from the digital validation launch event.**

## **9.0: Audio Analysis Guidance**

9.1 DFSG and the audio sub-group had agreed that the existing draft of the audio analysis guidance document would be issued for technical review. However, the audio sub-group had then offered to provide an updated version, either in January or February 2015, and this draft had not been received. Accordingly the DFSG chair would inform the audio sub-group that DFSG would now take over managing further editing of the guidance, with the

audio sub-group welcome to assist. The revised guidance would then be issued for consultation in December 2015.

**Action 13: DFSG chair to write to the audio sub-group to inform them that DFSG would take over work on the draft on audio analysis guidance.**

### **10.0: AOB**

10.1 UKAS were advertising on their website for an Assessment Manager for forensic science. This post could be based at home, with normal site visits, as well as visits to the UKAS site at Feltham, West London.

10.2 The College of Policing now had a tool for Open Source digital evidence gathering, with facilities for video and screen capture, downloads from websites and adding notes. This tool was for police force use. However it first needed validation, and DFSG could advise College of Policing on the process needed.

10.3 Attendance at DFSG on this occasion was low, and some members had been sending apologies to every DFSG meeting. The chair and FSR would accordingly review the DFSG membership.

## Annex A

### **Present**

Mark Stokes	Metropolitan Police (Chair)
John Beckwith	Staffordshire Police
David Compton	United Kingdom Accreditation Service
James Luck	Metropolitan Police
Matt Tart	CCL Group Digital Forensics
Gill Tully	Forensic Science Regulator

### **In attendance**

Simon Iveson	Forensic Science Regulation Unit, HO
Oluwajuwon Oladimeji	HO Forensic Science Strategy
Mike Taylor	HO Science (Secretary)

### **Apologies**

Neil Cohen	Centre for Applied Science and Technology, HO
Ian Elkins	Crown Prosecution Service
Danny Faith	F3 Steering Committee
Peter French	Peter French and Associates
Brian Jenkinson	First Forensic Forum (F3)
Nigel Jones	Technology Risk Ltd
Andy Kay	College of Policing
Andy Letherby	HM Revenue and Customs
Angus Marshall	Chartered Society of Forensic Sciences
Miranda Moore	5pb Chambers
Chris Simpson	College of Policing
Peter Sommer	London School of Economics
Zoe Scott	Skills for Justice
Craig Wilson	Digital Detective