



NATIONAL COMMISSION ON FORENSIC SCIENCE



Recommendation for the Accreditation of Digital and Multimedia Forensic Science Service Providers¹

Subcommittee
Accreditation and Proficiency Testing
Status
Initial Draft

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Overview

The 2009 National Research Council (NRC) report on forensic science set forth 13 recommendations for forensic science service providers (FSSPs).² Relevant among these were best practices, standardization and improving the quality of services including accreditation of Digital and Multimedia FSSPs. There are Digital and Multimedia FSSPs currently providing services in furtherance of criminal, civil, regulatory or administrative proceedings in the United States who are not accredited to any national or international standard. To achieve accreditation the Commission recommends that the Attorney General take several actions to promote and enforce accreditation for the Digital and Multimedia Forensic Sciences.

Accreditation is regarded as an important benchmark to ensure ongoing compliance to industry standards and continual improvement of a FSSP's operations. Accreditation assesses a FSSP's capacity to generate and interpret results. Accreditation criteria are based on accepted industry standards and applicable international standards. Accreditation uses these criteria to assess the quality of the FSSP's management system by examining, among other things, staff competence, training and continuing education; method validation; appropriateness of test methods; traceability of measurements and calibrations to national standards; suitability, calibration and maintenance of test equipment; testing environment; documentation, sampling and handling of test items; and quality assurance of data including reporting results and proficiency tests. The accrediting body prepares the assessment report and monitors any remediation to ensure the appropriate corrective action(s) have been implemented before accreditation is granted. Accreditation also includes periodic surveillance by the accrediting body to ensure continued compliance with requirements. Failure to maintain these standards can result in the accrediting body suspending or revoking the accreditation of the FSSP.³

¹ This document adopts the definitions of forensic science, forensic science service provider, forensic science agency, and forensic science practitioner developed by the National Commission on Forensic Science. See <http://www.justice.gov/ncfs/file/786571/download>

² National Research Council of the National Academies. *Strengthening Forensic Science in the United States: A Path Forward*, Washington, DC., 2009

³ For additional information see *The Advantages of Being an Accredited Laboratory*, ILAC Publications, 2010.

Accreditation will improve the Digital and Multimedia FSSP's ongoing compliance with industry best practices, promote standardization, and improve the quality of services provided by the FSSPs nationally.⁴

Recommendations

The National Commission on Forensic Science recommends that the Attorney General take the following action(s) for Digital and Multimedia FSSPs:

- The Attorney General should direct the DOJ Digital and Multimedia FSSPs to maintain accreditation or if not accredited, to prepare and apply for accreditation within five years.
- The Attorney General should direct DOJ FSSPs to use accrediting bodies that submit to and are in compliance with ISO/IEC 17011 and are a signatory to the ILAC MRA. Accreditation shall be to internationally recognized standards (at a minimum ISO/IEC 17025, General Requirements for the Competence of Testing and Calibration Laboratories, ISO/IEC 17020, General Criteria for the Operation of Various Types of Bodies Performing Inspection and, ISO 15189, Medical laboratories - Particular Requirements for Quality and Competence) including all appropriate supplemental standards.
- The Attorney General should require that the DOJ grant funding provided to non-DOJ Digital and Multimedia FSSPs shall be granted only to those who are accredited or are in the process of becoming accredited. In the future any DOJ funding award shall include a special condition requiring that the agency's Digital and Multimedia FSSP be accredited.
- The Attorney General should require that federal prosecutors, in cases in which they are in a position to request forensic testing, contract with accredited Digital and Multimedia FSSPs.. This provision does not apply to analyses conducted prior to the involvement of a federal prosecutor.
- Finally, the Attorney General should encourage, by all means possible, the accreditation of all non-DOJ Digital and Multimedia FSSPs with any available enforcement mechanisms.

Challenges to Achieving Accreditation

A major challenge facing the forensic community is identifying the Digital and Multimedia forensic science service providers. The NRC report noted that insufficient data exists on the number and expertise of forensic practitioners who are not employed in publically funded laboratories.⁵ There are potentially thousands of Digital and Multimedia FSSPs, predominately in law enforcement agencies, providing limited forensic science services. The majority of these providers are not accredited.

While significant progress has been made in the accreditation of public and private forensic science service providers to ISO/IEC 17025, ISO/IEC 17020, and, ISO 15189 and supplemental

⁴ The recommendation that forensic science service providers be accredited is a policy one, meant to ensure an increase in overall quality and quality assurance. It is not meant to be used as a criterion for a threshold admissibility determination for a particular expert or conclusion. Those types of decisions are made pursuant to judicial standards applying the criteria enunciated in Daubert, Frye, FRE 702, and/or various state laws.

⁵ National Research Council of the National Academies. *Strengthening Forensic Science in the United States: A Path Forward*, Washington, DC, 2009. pg 64

forensic science standards by an accrediting body that is a signatory to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA), this voluntary accreditation has not resulted in universal accreditation. To improve the overall quality of forensic science, all entities performing forensic science testing, even on a part-time basis, must be included in universal accreditation.

This document acknowledges there are challenges to achieving Digital and Multimedia accreditation including, but not limited to:

- There are specialty examinations that are valuable; however, may be outside the scope of existing forensic science accreditation programs.
- There are research laboratories that have equipment and expertise that may allow them to provide valuable services to the criminal justice system but, because the provision of such services is only a rare occurrence, will have no incentive to secure accreditation for forensic testing.
- There are existing accrediting bodies that do not use ISO/IEC standards at this time, although they have been accepted within the community and standards have been generated by professional organizations.
- There are existing accrediting bodies not recognized by ILAC, and this recognition will take time to achieve.
- Factors outside the control of the forensic science service provider, such as the availability of assessors, subject matter experts, and parent agency resources/funding, may affect the ability of the Digital and Multimedia FSSP to achieve or maintain accreditation within recommended timeframes.
- Compliance with government policies and regulations (e.g., purchasing, contracting, hiring, budget cycles) may also affect a Digital and Multimedia FSSP's ability to meet a mandated timeline. In some enacted state statutes, certain FSSPs are not required to meet accreditation standards and may be excluded from oversight regulations.
- The establishment of the necessary quality management systems may require significant resources and may impact timeliness of services provided during implementation.
- Digital and Multimedia FSSPs or their parent agencies may eliminate some or all services rather than seek accreditation, thus shifting additional caseload, testimony and travel to other FSSPs. This could impact backlogs, turnaround times and operating costs, thereby adding to existing delays in the justice system.
- Forensic units, small municipalities, law enforcement agencies, entities with part-time practitioners, and private entities that provide forensic science services may misunderstand or misinterpret the applicability of Digital and Multimedia accreditation to their organization. It may be necessary to conduct directed outreach through non-government organizations that support these entities to assist with educating the affected forensic science service providers, judicial system and enforcement bodies.

Appendix A: Examples of Digital and Multimedia Forensic Science Service Providers

This document adopts the definitions of forensic science, forensic science service provider, forensic science agency, and forensic science practitioner developed by the National Commission on Forensic Science. See <http://www.justice.gov/ncfs/file/786571/download>

Examples of functions that would be included are below, whether in public or private practice. The list is not inclusive of all Digital and Multimedia FSSPs.

1. Digital and Multimedia Evidence⁶
 - a. Computer examinations
 - b. Mobile Device examinations
 - c. Audio and Video examinations

Examples of functions that would be excluded are below, whether in public or private practice. The list is not inclusive of all functions that would be excluded.

1. Opinions/evaluations of the appropriateness or use of a particular statistical, probabilistic or mathematical statement or error rate calculations
2. Opinions/evaluations of the validity or reliability of a forensic science discipline, method or technique
3. Opinions/evaluations of the validity or reliability of research supporting a forensic science discipline, method or technique
4. Opinions/evaluations of results, methods, or techniques used in digital and multimedia evidence examinations
5. Examinations for which there is no forensic science accreditation program

⁶ Per the 2004 NIJ special report on "[Forensic Examination of Digital Evidence: A Guide for Law Enforcement](#)," "The purpose of the examination process is to extract and analyze digital evidence. Extraction refers to the recovery of data from its media. Analysis refers to the interpretation of the recovered data and putting it in a logical and useful format."

Appendix B: Certification vs. Accreditation

Accreditation is an independent third-party assessment of a **FSSP's** (which can consist of one or many practitioners) quality, administrative and technical systems. Accreditation uses specific criteria and procedures based upon accepted standards to ensure the quality of the FSSP's management system by examining staff competence, training and continuing education; method validation; appropriateness of test methods; traceability of measurements and calibrations to national standards; suitability, calibration and maintenance of test equipment; testing environment; documentation, sampling and handling of test items; and quality assurance of data including reporting results and proficiency tests.

Professional certification⁷, which is not addressed in this document, is the recognition by an independent body that an **individual** has acquired and demonstrated specialized knowledge, skills, and abilities in the standard practices necessary to execute the duties of their profession. Certification programs can include: written and/or practical testing; an evaluation of education, training and practical experience; requirements for continuing education; and adherence to a code of ethics. Certification does **not** assess the quality, administrative and technical systems used by the individual in their work. It also does **not** assess methods, procedures, testimony, reports, documentation, equipment, validation, measurement uncertainty, facilities, evidence handling, security, safety procedures used by the individual.

Accreditation and Certification are very different programs that assess and evaluate different aspects of forensic practitioners and FSSPs. They are not interchangeable but both are necessary to strengthen forensic science.

⁷ Certification, for purposes of this document, does not include certification of an instrument, equipment or the company manufacturing the equipment.