

Contract MA-060-26011342

For

**OC Automated Biometric Identification System (ABI System) and
Sustainment**

Between

Sheriff-Coroner

And

IDEMIA Identity & Security USA LLC



CONTRACT

**MA-060-26011342
BETWEEN
COUNTY OF ORANGE
AND
IDEMIA IDENTITY & SECURITY USA LLC
FOR
OC AUTOMATED BIOMETRIC IDENTIFICATION SYSTEM (ABI SYSTEM) AND
SUSTAINMENT**

This Contract MA-060-26011342 for OC Automated Biometric Identification System (ABI System) and Sustainment (Contract) is made and entered into as of the date fully executed by and between the County of Orange, a political subdivision of the State of California ("County"), and IDEMIA Identity & Security USA LLC (Contractor), with County and Contractor sometimes referred to as Party or collectively as Parties.

ATTACHMENTS

This Contract is comprised of this document and the following Attachments, which are attached hereto and incorporated by reference into this Contract:

Attachment A – Scope of Work

Attachment B – Payment and Compensation

RECITALS

WHEREAS, Contractor and County are entering into this Contract for OC Automated Biometric Identification System (ABI System) and Sustainment under a firm fixed fee Contract; and,

WHEREAS, County solicited Contract for OC Automated Biometric Identification System (ABI System) and Sustainment as set forth herein, and Contractor represented that it is qualified to provide OC Automated Biometric Identification System (ABI System) and Sustainment to the County as further set forth here; and,

WHEREAS, Contractor agrees to provide OC Automated Biometric Identification System (ABI System) and Sustainment to the County as further set forth in the Scope of Work, attached hereto as Attachment A; and,

WHEREAS, County agrees to pay Contractor based on the schedule of fees set forth in Payment/Compensation, attached hereto as Attachment B; and,

WHEREAS, the County Board of Supervisors has authorized the Procurement Officer or designee to enter into a Contract for OC Automated Biometric Identification System (ABI System) and Sustainment with the Contractor; and,

NOW, THEREFORE, the Parties mutually agree as follows:

*County of Orange
Sheriff-Coroner*

*MA-060-26011342
OC Automated Biometric Identification System (ABI
System) and Sustainment*

*Page 2 of 136
Folder No.: 2809301*

ARTICLES

GENERAL TERMS AND CONDITIONS

1. Governing Law and Venue:

This Contract has been negotiated and executed in the state of California and shall be governed by and construed under the laws of the state of California. In the event of any legal action to enforce or interpret this Contract, the sole and exclusive venue shall be a court of competent jurisdiction located in Orange County, California, and the parties hereto agree to and do hereby submit to the jurisdiction of such court, notwithstanding Code of Civil Procedure Section 394. Furthermore, the parties specifically agree to waive any and all rights to request that an action be transferred for adjudication to another county.

2. Entire Contract:

This Contract contains the entire Contract between the parties with respect to the matters herein, and there are no restrictions, promises, warranties or undertakings other than those set forth herein or referred to herein. No exceptions, alternatives, substitutes or revisions are valid or binding on County unless authorized by County in writing. Electronic acceptance of any additional terms, conditions or supplemental Contracts by any County employee or agent, including but not limited to installers of software, shall not be valid or binding on County unless accepted in writing by County's Purchasing Agent or designee.

3. Amendments:

No alteration or variation of the terms of this Contract shall be valid unless made in writing and signed by the parties; no oral understanding or agreement not incorporated herein shall be binding on either of the parties; and no exceptions, alternatives, substitutes or revisions are valid or binding on County unless authorized by County in writing.

4. Taxes:

Unless otherwise provided herein or by law, price quoted does not include California state sales or use tax. Out-of-state Contractors shall indicate California Board of Equalization permit number and sales permit number on invoices, if California sales tax is added and collectable. If no permit numbers are shown, sales tax will be deducted from payment. The Auditor-Controller will then pay use tax directly to the State of California in lieu of payment of sales tax to Contractor.

5. Delivery:

Time of delivery of commodities and services is of the essence in this Contract. County reserves the right to refuse any commodities and services and to cancel all or any part of the commodities not conforming to applicable specifications, drawings, samples or descriptions or services that do not conform to the prescribed scope of work. Acceptance of any part of the order for commodities shall not bind County to accept future shipments nor deprive it of the right to return commodities already accepted at Contractor's expense. Over shipments and under shipments of commodities shall be only as agreed to in writing by County. Delivery shall not be deemed to be complete until all commodities or services have actually been received and accepted in writing by County.

*County of Orange
Sheriff-Coroner*

*MA-060-26011342
OC Automated Biometric Identification System (ABI
System) and Sustainment*

*Page 3 of 136
Folder No.: 2809301*

6. Acceptance Payment:

Unless otherwise agreed to in writing by County, 1) acceptance shall not be deemed complete unless in writing and until all the commodities/services have actually been received, inspected, and tested to the satisfaction of County. To the extent the County does not accept the commodities/services, it shall provide a detailed, written explanation as to the reasoning, pointing to the specific section of the Contract that Contractor failed to fulfill. The County's failure to complete inspection and testing within a mutually agreed number of days of County's receipt of commodities/services shall constitute acceptance. Payment shall be due upon acceptance or upon County's beneficial use of the commodities/services, whichever comes first.

7. Warranty:

Contractor expressly warrants that the commodities covered by this Contract are 1) free of liens or encumbrances, 2) merchantable and good for the ordinary purposes for which they are used, and 3) for the initial delivery period of the contract (prior to entering maintenance), shall meet the requirements identified in this Contract. Warranties beyond the initial delivery period shall be addressed in the separate Maintenance Agreement(s) between the Parties. Acceptance of this order shall constitute an agreement upon Contractor's part to indemnify, defend and hold County and its indemnitees as identified in the Insurance and Indemnification section, and as more fully described in the Insurance and Indemnification section harmless from liability, loss, damage and expense, including reasonable counsel fees, incurred or sustained by County by reason of the failure of the goods/services to conform to such warranties, faulty work performance, negligent or unlawful acts, and non-compliance with any applicable state or federal codes, ordinances, orders, or statutes, including the Occupational Safety and Health Act (OSHA) and the California Industrial Safety Act. Such remedies shall be in addition to any other remedies provided by law.

8. Patent/Copyright Materials/Proprietary Infringement:

Unless otherwise expressly provided in this Contract, Contractor shall be solely responsible for clearing the right to use any patented or copyrighted materials in the performance of this Contract. Contractor warrants that any software as modified through services provided hereunder will not infringe upon or violate any patent, proprietary right, or trade secret right of any third party. Contractor agrees that, in accordance with the more specific requirement contained in the Insurance and Indemnification section, it shall indemnify, defend and hold County and County Indemnitees harmless from any and all such claims and be responsible for payment of all costs, damages, penalties and expenses related to or arising from such claim(s), including, costs and expenses but not including attorney's fees.

9. Assignment:

The terms, covenants, and conditions contained herein shall apply to and bind the heirs, successors, executors, administrators and assigns of the parties. Furthermore, neither the performance of this Contract nor any portion thereof may be assigned by Contractor without the express written consent of County. Any attempt by Contractor to assign the performance or any portion thereof of this Contract without the express written consent of County shall be invalid and shall constitute a breach of this Contract.

10. Non-Discrimination:

In the performance of this Contract, Contractor agrees that it will comply with the requirements of Section 1735 of the California Labor Code and not engage nor permit any subcontractors to engage in discrimination

*County of Orange
Sheriff-Coroner*

*MA-060-26011342
OC Automated Biometric Identification System (ABI
System) and Sustainment*

*Page 4 of 136
Folder No.: 2809301*

in employment of persons because of the race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, or sex of such persons. Contractor acknowledges that a violation of this provision shall subject Contractor to penalties pursuant to Section 1741 of the California Labor Code.

11. Termination:

In addition to any other remedies or rights it may have by law, (i) either Party has the right to terminate this Contract immediately without penalty for cause upon 30 days' written notice if the other Party fails to correct the breach within such time frame; or (ii) the County may terminate after 120 days' written notice without cause, unless otherwise specified, provided in the event of a termination without cause, that the County shall be obligated to reimburse Contractor for all actual out of pocket costs associated with the Contract through the date that Contractor receives such notice. "For cause" shall be defined as any material breach of contract, any misrepresentation or fraud on the part of either Party.

12. Consent to Breach Not Waiver:

No term or provision of this Contract shall be deemed waived and no breach excused, unless such waiver or consent shall be in writing and signed by the party claimed to have waived or consented. Any consent by any party to, or waiver of, a breach by the other, whether express or implied, shall not constitute consent to, waiver of, or excuse for any other different or subsequent breach.

13. Independent Contractor:

Contractor shall be considered an independent contractor and neither Contractor, its employees, nor anyone working under Contractor shall be considered an agent or an employee of County. Neither Contractor, its employees nor anyone working under Contractor shall qualify for workers' compensation or other fringe benefits of any kind through County.

14. Performance Warranty:

Contractor shall warrant all work under this Contract, taking necessary steps and precautions to perform the work to the standards outlined in this Contract. Contractor shall be responsible for the professional quality, technical assurance, timely completion and coordination of all documentation and other commodities/services furnished by Contractor under this Contract. Contractor shall perform all work diligently, carefully, and in a good and workmanlike manner; shall furnish all necessary labor, supervision, machinery, equipment, materials, and supplies, shall at its sole expense obtain and maintain all permits and licenses required by public authorities, including those of County required in its governmental capacity, in connection with performance of the work. If permitted to subcontract, Contractor shall be fully responsible for all work performed by subcontractors.

15. Changes:

Contractor shall make no changes in the work or perform any additional work without County's specific written approval.

16. Change of Ownership/Name, Litigation Status, Conflicts with County Interests:

Contractor agrees that if there is a change or transfer in ownership of Contractor's business prior to completion of this Contract, and the County agrees to an assignment of the Contract, the new owners shall be required under terms of sale or other transfer to assume Contractor's duties and obligations contained in this Contract and complete them to the satisfaction of the County.

Notwithstanding other notice or termination provisions contained herein, County reserves the right to immediately terminate this Contract, as of the date on which the County provides written determination of termination of this Contract under this provision anytime upon or after assignment, in the event that the County determines that the assignee is not qualified or is otherwise unacceptable to the County for the provision of services or commodities under this Contract. In the event of an immediate termination under this provision, the Contractor shall promptly refund the County an amount equal to the pro rata portion of any charges the County paid in advance for any remaining portion of the Contract after the date of termination. Likewise, the County shall not be liable for payment for any remaining services not yet provided and accepted by the County under this Contract after the date of termination for any payments to be made in arrears pursuant to the terms of the Contract.

17. Force Majeure:

Contractor shall not be assessed with liquidated damages or unsatisfactory performance penalties during any delay beyond the time named for the performance of this Contract caused by any act of God, war, civil disorder, employment strike or other cause beyond its reasonable control, provided Contractor gives written notice of the cause of the delay to County within 36 hours of the start of the delay and Contractor avails himself of any available remedies.

18. Confidentiality:

Contractor agrees to maintain the confidentiality of all County and County-related records and information pursuant to all statutory laws relating to privacy and confidentiality that currently exist or exist at any time during the term of this Contract. All such records and information shall be considered confidential and kept confidential by Contractor and Contractor's staff, agents and employees.

19. Compliance with Laws:

Contractor represents and warrants that services to be provided under this Contract shall fully comply, at Contractor's expense, with all standards, laws, statutes, restrictions, ordinances, requirements, and regulations (collectively "laws"), including, but not limited to those issued by County in its governmental capacity and all other laws applicable to the services at the time services are provided to and accepted by County. Contractor acknowledges that County is relying on Contractor to ensure such compliance, and pursuant to the requirements of the Insurance and Indemnification section, Contractor agrees that it shall defend, indemnify and hold County and County Indemnitees harmless from all liability, damages, costs and expenses arising from or related to a violation of such laws.

Contractor shall remain in compliance and in good standing, maintaining current and active business entity and/or nonprofit registration status, with all applicable federal, state and local registration requirements at the time of execution of the contract through the duration of the term of the Contract, and shall provide annual confirmation of current and active status to County through the term of the Contract.

20. Freight:

Prior to County's express acceptance of delivery of products. Contractor assumes full responsibility for all transportation, transportation scheduling, packing, handling, insurance, and other services associated with delivery of all products deemed necessary under Contract.

21. Severability:

If any term, covenant, condition or provision of this Contract is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remainder of the provisions hereof shall remain in full force and effect and shall in no way be affected, impaired or invalidated thereby.

22. Attorney Fees:

In any action or proceeding to enforce or interpret any provision of this Contract, each party shall bear their own attorney's fees, costs and expenses.

23. Interpretation:

This Contract has been negotiated at arm's length and between persons sophisticated and knowledgeable in the matters dealt with in this Contract. In addition, each party had been represented by experienced and knowledgeable independent legal counsel of their own choosing or has knowingly declined to seek such counsel despite being encouraged and given the opportunity to do so. Each party further acknowledges that they have not been influenced to any extent whatsoever in executing this Contract by any other party hereto or by any person representing them, or both. Accordingly, any rule or law (including California Civil Code Section 1654) or legal decision that would require interpretation of any ambiguities in this Contract against the party that has drafted it is not applicable and is waived. The provisions of this Contract shall be interpreted in a reasonable manner to effect the purpose of the parties and this Contract.

24. Employee Eligibility Verification:

Contractor warrants that it fully complies with all Federal and State statutes and regulations regarding the employment of aliens and others and that all its employees performing work under this Contract meet the citizenship or alien status requirement set forth in Federal statutes and regulations. Contractor shall obtain, from all employees performing work hereunder, all verification and other documentation of employment eligibility status required by Federal or State statutes and regulations including, but not limited to, the Immigration Reform and Control Act of 1986, 8 U.S.C. §1324 et seq., as they currently exist and as they may be hereafter amended. Contractor shall retain all such documentation for all covered employees for the period prescribed by the law. Contractor shall indemnify, defend with counsel approved in writing by County, and hold harmless, County, its agents, officers, and employees from employer sanctions and any other liability which may be assessed against Contractor or County or both in connection with any alleged violation of any Federal or State statutes or regulations pertaining to the eligibility for employment of any persons performing work under this Contract.

25. Audits/Inspections:

Contractor agrees to permit County's Auditor-Controller or the Auditor-Controller's authorized representative (including auditors from a private auditing firm hired by County) access during normal

working hours to all books, accounts, records, reports, files, financial records, supporting documentation, including payroll and accounts payable/receivable records, and other papers or property of Contractor for the purpose of auditing or inspecting any aspect of performance under this Contract. The inspection and/or audit will be confined to those matters connected with the performance of Contract including, but not limited to, the costs of administering Contract. County will provide reasonable notice of such an audit or inspection.

County reserves the right to audit and verify Contractor's records before final payment is made.

Contractor agrees to maintain such records for possible audit for a minimum of three years after final payment, unless a longer period of records retention is stipulated under this Contract or by law. Contractor agrees to allow interviews of any employees or others who might reasonably have information related to such records. Further, Contractor agrees to include a similar right to County to audit records and interview staff of any subcontractor related to performance of this Contract.

Should Contractor cease to exist as a legal entity, Contractor's records pertaining to this Contract shall be forwarded to County's project manager.

26. Contingency of Funds:

Contractor acknowledges that funding or portions of funding for this Contract may be contingent upon state budget approval; receipt of funds from, and/or obligation of funds by, the state of California to County; and inclusion of sufficient funding for the services hereunder in the budget approved by County's Board of Supervisors for each fiscal year covered by this Contract. If such approval, funding or appropriations are not forthcoming, or are otherwise limited, County may immediately terminate or modify this Contract without penalty.

27. California Public Records Act:

Contractor and County agree and acknowledge that all information and documents related to the award and performance of this Contract may be subject to disclosure pursuant to the California Public Records Act, California Government Code Section 7920.000 et seq. Contractor shall not respond to any California Public Records Act request directed at County; all responses shall be handled by County.

INDEMNIFICATION AND INSURANCE PROVISIONS

1. Indemnification

Contractor agrees to indemnify, defend with counsel approved in writing by County, and hold County, its elected and appointed officials, officers, employees, agents and those special districts and agencies which County's Board of Supervisors acts as the governing Board ("County Indemnitees") harmless from any claims, demands or liability of any kind or nature, originating from a third party, including but not limited to personal injury or property damage, to the extent such claims arise from or relate to the services, products or other performance provided by Contractor pursuant to this Contract. If judgment is entered against Contractor and County by a court of competent jurisdiction because of acts or omissions of County or County Indemnitees, Contractor and County agree that liability will be apportioned in proportion to each Party's degree of fault. Neither Party shall request a jury apportionment. Notwithstanding anything stated

*County of Orange
Sheriff-Coroner*

*MA-060-26011342
OC Automated Biometric Identification System (ABI
System) and Sustainment*

*Page 8 of 136
Folder No.: 2809301*

above, nothing contained herein shall relieve Contractor of any insurance requirements or obligations created elsewhere in this Contract.

2. General Insurance Requirements

Prior to the provision of services under this Contract, the Contractor agrees to carry all required insurance at Contractor's expense, including all endorsements required herein, necessary to satisfy the County that the insurance provisions of this Contract have been complied with. Contractor agrees to keep such insurance coverage current, provide Certificates of Insurance, and endorsements to the County during the entire term of this Contract.

Contractor shall ensure that all subcontractors performing work on behalf of Contractor pursuant to this Contract shall be covered under Contractor's insurance as an Additional Insured or maintain insurance subject to the same terms and conditions as set forth herein for Contractor. Contractor shall not allow subcontractors to work if subcontractors have less than the level of coverage required by County from Contractor under this Contract. It is the obligation of Contractor to provide notice of the insurance requirements to every subcontractor and to receive proof of insurance prior to allowing any subcontractor to begin work. Such proof of insurance must be maintained by Contractor through the entirety of this Contract for inspection by County representative(s) at any reasonable time.

All self-insured retentions (SIR)'s shall be clearly stated on the Certificate of Insurance. Any SIR in excess of Fifty Thousand Dollars \$50,000 shall specifically be approved by the County's Risk Manager, or designee. The County reserves the right to require current audited financial reports from Contractor. If Contractor is self-insured, Contractor will indemnify the County for any and all claims resulting or arising from Contractor's services in accordance with the indemnity provision stated in this contract.

If the Contractor fails to maintain insurance acceptable to the County for the full term of this Contract, the County may terminate this Contract.

Qualified Insurer

The policy or policies of insurance must be issued by an insurer with a minimum rating of A- (Secure A.M. Best's Rating) and VIII (Financial Size Category as determined by the most current edition of the **Best's Key Rating Guide/Property-Casualty/United States or ambest.com**).

If the insurance carrier does not have an A.M. Best Rating of A-/VIII, the CEO/Office of Risk Management retains the right to approve or reject a carrier after a review of the company's performance and financial ratings.

The policy or policies of insurance maintained by the Contractor shall provide the minimum limits and coverage as set forth below.

Increased insurance limits may be satisfied with Excess/Umbrella policies. Excess/Umbrella policies when required must provide Follow Form coverage.

All insurance policies required by this Contract shall waive all rights of subrogation against the **County of Orange, its elected and appointed officials, officers, employees, and agents** when acting within the scope of their appointment or employment.

If any or part of the required insurance is written on a claims-made basis Contractor shall agree to the following:

*County of Orange
Sheriff-Coroner*

*MA-060-26011342
OC Automated Biometric Identification System (ABI
System) and Sustainment*

*Page 9 of 136
Folder No.: 2809301*

- 1) The retroactive date must be shown and must be before the date of the Contract or the beginning of the Contract services.
- 2) Insurance must be maintained, and evidence of insurance must be provided for at least three (3) years after expiration or earlier termination of Contract services.
- 3) If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the effective date of the contract services, Contractor must purchase an extended reporting period for a minimum of three (3) years after expiration of earlier termination of the Contract.

Contractor shall provide thirty (30) days prior written notice to the County of any policy cancellation or non-renewal and ten (10) days prior written notice where cancellation is due to non-payment of premium and provide a copy of the cancellation notice to County. Failure to provide written notice of cancellation may constitute a material breach of the Contract, upon which the County may suspend or terminate this Contract.

Insurance certificates should be forwarded to the agency/department address listed on the solicitation.

If the Contractor fails to provide the insurance certificates and endorsements within ten (10) days of notification by CEO/Purchasing or the agency/department purchasing division, award may be made to the next qualified vendor.

County expressly retains the right to require Contractor to increase or decrease insurance of any of the above insurance types throughout the term of this Contract. Any increase or decrease in insurance will be as deemed by County of Orange Risk Manager as appropriate to adequately protect County.

County shall notify Contractor in writing of changes in the insurance requirements. If Contractor does not provide acceptable Certificates of Insurance and endorsements to County incorporating such changes within thirty (30) days of receipt of such notice, this Contract may be in breach without further notice to Contractor, and County shall be entitled to all legal remedies.

The procuring of such required policy or policies of insurance shall not be construed to limit Contractor's liability hereunder nor to fulfill the indemnification provisions and requirements of this Contract, nor act in any way to reduce the policy coverage and limits available from the insurer.

3. Commercial General Liability

Minimum limits and coverage

\$1,000,000 per occurrence; \$2,000,000 aggregate

Required Coverage Forms

The Commercial General Liability coverage shall be written on occurrence basis utilizing Insurance Services Office (ISO) form CG 00 01, or a substitute form providing liability coverage at least as broad.

Required Endorsements

The Commercial General Liability policy shall contain the following endorsements, which shall accompany the Certificate of Insurance:

- A. An Additional Insured endorsement using ISO form CG 20 26 04 13, or a form at least as broad naming the County of Orange its elected and appointed officials, officers, employees, and agents as Additional Insureds, or provide blanket coverage, which will state *As Required by Written Contract*.
- B. A primary non-contributory endorsement using ISO form CG 20 01 04 13, or a form at least as broad evidencing that the Contractor's insurance is primary, and any insurance or self-insurance maintained by the County shall be excess and non-contributing.

The Commercial General Liability policy shall contain a severability of interests clause also known as a "separation of insureds" clause (standard in the ISO CG 0001 policy).

4. Automobile Liability including coverage for owned or scheduled, non-owned and hired vehicles

Minimum limits and coverage

\$1,000,000 combined Single Limit

Required Coverage Forms

The Business Auto Liability coverage shall be written on ISO form CA 00 01, CA 00 05, CA 0012, CA 00 20, or a substitute form providing coverage at least as broad.

5. Workers' Compensation

Minimum limits and coverage

Statutory

Required Endorsements

The Workers' Compensation policy shall contain a waiver of subrogation endorsement waiving all rights of subrogation against the *County of Orange, its elected and appointed officials, officers, agents, and employees* or provide blanket coverage, which will state *As Required by Written Contract*.

6. Employers Liability Insurance

Minimum limits and coverage

\$1,000,000 per accident or disease

7. Network Security & Privacy Liability

\$2,000,000 per claims made

8. Technology Errors & Omissions

\$2,000,000 per claims made; \$2,000,000 aggregate

ADDITIONAL TERMS AND CONDITIONS

1. Scope of Contract:

This Contract specifies contractual terms and conditions by which County will procure OC Automated Biometric Identification System (ABI System) Items from Contractor as further detailed in the Scope of Work, identified and incorporated herein by this reference as "Attachment A".

2. Term of Contract:

This Contract shall commence upon execution of all necessary signatures and continue for five (5) calendar years from that date, unless otherwise terminated by County. This Contract may be renewed as set forth in the Article titled "Renewal" below.

3. Renewal:

This Contract may be renewed by mutual written agreement of both Parties for five (5) additional one-year terms. The County does not have to give reason if it elects not to renew. Renewal periods may be subject to approval by the County of Orange Board of Supervisors.

4. Adjustments – Scope of Work:

No adjustments made to the Scope of Work will be authorized without prior written approval of County assigned Deputy Purchasing Agent.

5. Bills and Liens:

Contractor shall pay promptly all indebtedness for labor, materials and equipment used in performance of the work. Contractor shall not permit any lien or charge to attach to the work or the premises, but if any does so attach, Contractor shall promptly procure its release and, in accordance with the requirements of Article "Indemnification" above, indemnify, defend, and hold County harmless and be responsible for payment of all costs, damages, penalties and expenses related to or arising from or related thereto.

6. Breach of Contract:

The failure of Contractor to comply with any of the provisions, covenants or conditions of this Contract shall be a material breach of this Contract. In such event County may, and in addition to any other remedies available at law, in equity, or otherwise specified in this Contract:

- a. Terminate Contract, pursuant to the General Terms and Conditions section, "Termination" Article herein;
- b. Afford Contractor written notice of the breach and thirty (30) calendar days or such shorter time that may be specified in this Contract within which to cure the breach;
- c. Discontinue payment to the Contactor for and during the period in which Contractor is in breach; and

7. **Civil Rights:**

Contractor attests that services provided shall be in accordance with the provisions of Title VI and Title VII of the Civil Rights Act of 1964, as amended, Section 504 of the Rehabilitation Act of 1973, as amended; the Age Discrimination Act of 1975 as amended; Title II of the Americans with Disabilities Act of 1990, and other applicable State and federal laws and regulations prohibiting discrimination on the basis of race, color, national origin, ethnic group identification, age, religion, marital status, sex or disability.

8. **Conflict of Interest – Contractor’s Personnel:**

Contractor shall exercise reasonable care and diligence to prevent any actions or conditions that could result in a conflict with the best interests of County. This obligation shall apply to Contractor, Contractor’s officers, directors, employees, agents, and subcontractors associated with accomplishing work and services hereunder. Contractor’s efforts shall include, but not be limited to establishing precautions to prevent its employees, agents, and subcontractors from providing or offering gifts, entertainment, payments, loans or other considerations which could be deemed to influence or appear to influence County staff or elected officers from acting in the best interests of County.

Contractor shall notify County, in writing, of any potential or actual conflicts of interest between Contractor and County that may arise prior to, or during the period of, Contract performance, including, but not limited to, whether any known County public officer’s child is an officer or director of, or has an ownership interest of ten (10) percent or more in, Contractor. While Contractor will be required to provide this information without prompting from County any time there is a change regarding conflict of interest, Contractor must also provide an update to County upon request by County.

9. **Conflict of Interest – County Personnel:**

County of Orange Board of Supervisors policy prohibits its employees from engaging in activities involving a conflict of interest. Contractor shall not, during the period of this Contract, employ any County employee for any purpose.

10. **W-9/W-8 Requirements**

Department of the Treasury, Internal Revenue Service Form W-9 Requirement:

Effective June 3, 2006, all Contractors, entering into a contract with the County, who are not already established in the County Financial System as an Auditor-Controller Vendor, will be required to submit to the County a federal Form W-9, or form W-8 for foreign vendors. The County will inform the Contractor, at the time of award, if the Form W-9, or W-8, will be required.

- A. In order to comply with this County requirement, within ten days of notification of selection of award of Contract but prior to official award of Contract, the selected Contractor agrees to furnish to the contract administrator, the County DPA, the required W-9 or W-8. *Out of State Vendors may be required to submit a 587/590 Form.*

11. **Contractor’s Project Manager and Key Personnel:**

Contractor shall appoint a Project Manager to direct Contractor’s efforts in fulfilling Contractor’s obligations under this Contract. This Project Manager shall be subject to approval by County and shall not

be changed without the written consent of County's Project Manager, which consent shall not be unreasonably withheld.

Contractor's Project Manager shall be assigned to this project for the duration of Contract and shall diligently pursue all work and services to meet the project time lines. County's Project Manager shall have the right to require the removal and replacement of Contractor's Project Manager from providing services to County under this Contract. County's Project manager shall notify Contractor in writing of such action. Contractor shall accomplish the removal within five (5) business days after written notice by County's Project Manager. County's Project Manager shall review and approve the appointment of the replacement for Contractor's Project Manager. County is not required to provide any additional information, reason or rationale in the event it requires the removal of Contractor's Project Manager from providing further services under Contract.

12. Contractor Personnel – Reference Checks:

Contractor warrants that all persons employed to provide service under this Contract have satisfactory past work records indicating their ability to adequately perform the work under this Contract. Contractor's employees assigned to this project must meet character standards as demonstrated by background investigation and reference checks, coordinated by the agency/department issuing this Contract.

13. Contractor's Expense:

The Contractor will be responsible for all costs related to photocopying, telephone communications, fax communications, and parking while on County sites during the performance of work and services under this Contract. The County will not provide free parking for any service in the County Civic Center.

14. Contractor Personnel – Uniform/Badges/Identification:

Contractor warrants that all persons employed to provide service under this Contract have satisfactory past work records indicating their ability to accept the kind of responsibility under this Contract. All Contractor's employees shall be required to wear uniforms, badges, or other means of identification which are to be furnished by Contractor and must be worn at all times while working on County property. The assigned Deputy Purchasing Agent must be notified in writing, within seven (7) days of notification of award of Contract of the uniform and/or badges and/or other identification to be worn by employees prior to beginning work and notified in writing seven (7) days prior to any changes in this procedure.

15. Contractor's Records:

Contractor shall keep true and accurate accounts, records, books and data which shall correctly reflect the business transacted by Contractor in accordance with generally accepted accounting principles. These records shall be stored in Orange County for a period of three (3) years after final payment is received from County. Storage of records in another county will require written approval from County of Orange assigned Deputy Purchasing Agent.

16. Conditions Affecting Work:

Contractor shall be responsible for taking all steps reasonably necessary to ascertain the nature and location of the work to be performed under this Contract and to know the general conditions which can affect the

work or the cost thereof. Any failure by Contractor to do so will not relieve Contractor from responsibility for successfully performing the work without additional cost to County. County assumes no responsibility for any understanding or representations concerning the nature, location(s) or general conditions made by any of its officers or agents prior to the execution of this Contract, unless such understanding or representations by County are expressly stated in Contract.

17. Cooperative Contract:

This Contract is a cooperative contract and may be utilized by all County of Orange departments.

The provisions and pricing of this Contract may be extended, at the option of Contractor, to any Municipal, County, Public Utility, Hospital, Educational Institution, or any other non-profit or governmental organization (the "Cooperative Program"). Parties in a Cooperative Program wishing to use this Contract will be responsible for issuing their own purchase documents / price agreements, providing for their own acceptance, and making any subsequent payments. Contractor shall be required to include in any agreement entered into with another agency or entity that is entered into pursuant to the provisions and pricing of this Contract a clause that binds the parties to the agreement to "indemnify, defend with counsel approved in writing by the County of Orange, California ("County"), and hold County, its elected and appointed officials, officers, employees, agents and those special districts and agencies which County's Board of Supervisors acts as the governing Board ("County Indemnitees") harmless from any claims, demands or liability of any kind or nature, including but not limited to personal injury or property damage, arising from or related to the services, products or other performance provided" under the agreement.. Failure to so include this clause voids the Contract's extension to a Cooperative Program and will be considered a material breach of this Contract and grounds for immediate Contract termination. The cooperative entities are responsible for obtaining all certificates of insurance and bonds required. The County of Orange makes no guarantee of usage by other users of this Contract.

As a cost-recovery mechanism for County, a 2 percent administrative rebate on total sales from all subordinate contracts will be paid to the County for any contracts the Contractor agrees to enter into with another agency or entity, other than the County of Orange or a department thereof, under the provisions and pricing of this Contract. The County has partnered with Pavilion, a third-party administrator, responsible for managing all reporting and payments under this Cooperative Program. The Contractor shall provide quarterly Volume Sales Reports about additional sales to other entities under the provisions and pricing of this Contract. The Reports shall include the ordering agency, detail of items sold including description, quantity, and price, and shall include all transactions pertaining to sales under the Contract provisions and pricing for that Reporting Period. Contractor shall provide the Volume Sales Reports regardless of whether or not any sales have been conducted. Failure of the Contractor to provide quarterly reports as required may be deemed by the County as a material breach of the Contract. A late penalty of 15 percent on the value of the rebate may be assessed to the Contractor for each month the payments are not received.

Subordinate contracts must be executed prior to the expiration or earlier termination of this Contract and may survive the expiration of this Contract. This Cooperative Contract provision shall survive expiration or termination of this Contract.

18. Data – Title To:

All materials, documents, data or information obtained from County data files or any County medium furnished to Contractor in the performance of this Contract will at all times remain the property of County.

*County of Orange
Sheriff-Coroner*

*MA-060-26011342
OC Automated Biometric Identification System (ABI
System) and Sustainment*

*Page 15 of 136
Folder No.: 2809301*

Such data or information may not be used or copied for direct or indirect use by Contractor after completion or termination of this Contract without the express written consent of County. All materials, documents, data or information, including copies, must be returned to County at the end of this Contract.

19. Default – Re-Procurement Costs:

In case of uncured Contract breach by Contractor, resulting in termination by County, County may procure the commodities and services from other sources. If the cost for those commodities and services is higher than under the terms of the existing Contract, provided that County has made diligent efforts to ensure that the replacement costs are reasonable and commensurate with typical costs for similar services in the industry, Contractor will be responsible for paying County the difference between Contract cost and the price paid. The price paid by County shall be the prevailing market price at the time such purchase is made. This is in addition to any other remedies available under this Contract and under law.

20. Disputes – Contract:

The parties shall deal in good faith and attempt to resolve potential disputes informally. If the dispute concerning a question of fact arising under the terms of this Contract is not disposed of in a reasonable period of time by the Contractor's Project Manager and the County's Project Manager, as specified in Article titled "Notices" below, such matter shall be brought to the attention of the County DPA by way of the following process:

- A. The Contractor shall submit to the agency/department assigned Deputy Purchasing Agent a written demand for a final decision regarding the disposition of any dispute between the parties arising under, related to, or involving this Contract, unless County, on its own initiative, has already rendered such a final decision.
- B. The Contractor's written demand shall be fully supported by factual information, and, if such demand involves a cost adjustment to Contract, Contractor shall include with the demand a written statement signed by a senior official indicating that the demand is made in good faith, that the supporting data are accurate and complete, and that the amount requested accurately reflects Contract adjustment for which Contractor believes County is liable.

Pending the final resolution of any dispute arising under, related to, or involving this Contract, Contractor agrees to diligently proceed with the performance of this Contract, including the delivery of commodities and/or provision of services. Contractor's failure to diligently proceed shall be considered a material breach of this Contract.

Any final decision of County shall be expressly identified as such, shall be in writing, and shall be signed by County Deputy Purchasing Agent or his designee. If County fails to render a decision within 90 days after receipt of Contractor's demand, it shall be deemed a final decision adverse to Contractor's contentions. Nothing in this section shall be construed as affecting County's right to terminate Contract for cause or termination for convenience as stated in Article "Termination" herein.

21. Drug-Free Workplace:

Contractor hereby certifies compliance with Government Code Section 8355 in matters relating to providing a drug-free workplace. Contractor will:

*County of Orange
Sheriff-Coroner*

*MA-060-26011342
OC Automated Biometric Identification System (ABI
System) and Sustainment*

*Page 16 of 136
Folder No.: 2809301*

- A. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations, as required by Government Code Section 8355(a)(1).
- B. Establish a drug-free awareness program as required by Government Code Section 8355(a)(2) to inform employees about all of the following:
 - 1. The dangers of drug abuse in the workplace;
 - 2. The organization's policy of maintaining a drug-free workplace
 - 3. Any available counseling, rehabilitation and employee assistance programs; and
 - 4. Penalties that may be imposed upon employees for drug abuse violations.
- C. Provide as required by Government Code Section 8355(a)(3) that every employee who works under this Contract:
 - 1. Will receive a copy of the company's drug-free policy statement; and
 - 2. Will agree to abide by the terms of the company's statement as a condition of employment under this Contract.
- D. Failure to comply with these requirements may result in suspension of payments under Contract or termination of Contract or both, and Contractor may be ineligible for award of any future County contracts if County determines that any of the following has occurred:
 - 1. Contractor has made false certification, or
 - 2. Contractor violates the certification by failing to carry out the requirements as noted above.

22. EDD Independent Contractor Reporting Requirements:

Effective January 1, 2001, County of Orange is required to file in accordance with subdivision (a) of Section 6041A of the Internal Revenue Code for services received from a "service provider" to whom County pays \$600 or more or with whom County enters into a contract for \$600 or more within a single calendar year. The purpose of this reporting requirement is to increase child support collection by helping to locate parents who are delinquent in their child support obligations.

The term "service provider" is defined in California Unemployment Insurance Code Section 1088.8, subparagraph B.2 as "an individual who is not an employee of the service recipient for California purposes and who received compensation or executes a contract for services performed for that service recipient within or without the state." The term is further defined by the California Employment Development Department to refer specifically to independent Contractors. An independent Contractor is defined as "an individual who is not an employee of the ... government entity for California purposes and who receives compensation or executes a contract for services performed for that ... government entity either in or outside of California."

The reporting requirement does not apply to corporations, general partnerships, limited liability partnerships, and limited liability companies.

Additional information on this reporting requirement can be found at the California Employment Development Department website located at http://www.edd.ca.gov/Employer_Services.htm

23. Emergency/Declared Disaster Requirements:

In the event of an emergency or if Orange County is declared a disaster area by County, state or federal government, Contract may be subjected to unusual usage. Contractor shall service County during such an emergency or declared disaster under the same terms and conditions that apply during non-emergency/disaster conditions. The pricing quoted by Contractor shall apply to serving County's needs regardless of the circumstances. If Contractor is unable to supply the goods/services under the terms of Contract, then Contractor shall provide proof of such disruption and a copy of the invoice for the goods/services from Contractor's supplier(s). Additional profit margin as a result of supplying goods/services during an emergency or a declared disaster shall not be permitted. In the event of an emergency or declared disaster, emergency purchase order numbers will be assigned. All applicable invoices from Contractor shall show both the emergency purchase order number and Contract number.

24. Error and Omissions:

All reports, files and other documents prepared and submitted by Contractor shall be complete and shall be carefully checked by the professional(s) identified by Contractor as Project Manager and key personnel attached hereto, prior to submission to the County. Contractor agrees that County review is discretionary, and Contractor shall not assume that the County will discover errors and/or omissions. If the County discovers any errors or omissions prior to approving Contractor's reports, files and other written documents, the reports, files or documents will be returned to Contractor for correction. Should the County or others discover errors or omissions in the reports, files or other written documents submitted by the Contractor after County approval thereof, County approval of Contractor's reports, files or documents shall not be used as a defense by Contractor in any action between the County and Contractor, and the reports, files or documents will be returned to Contractor for correction.

25. Stop Work:

The County may, at any time, by written stop work order to the Contractor, require the Contractor to stop all or any part of the work called for by this Contract for a period of 90 days after the stop work order is delivered to the Contractor and for any further period to which the parties may agree. The stop work order shall be specifically identified as such and shall indicate it is issued under this clause. Upon receipt of the stop work order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the stop work order during the period of work stoppage. Within a period of 90 days after a stop work order is delivered to the Contractor or within any extension of that period to which the parties shall have agreed, the County shall either:

1. Cancel the stop work order; or
2. Terminate work covered by the stop work order as provided for in the "Default" or "Termination" clause of this Contract.

If a stop work order issued under this clause is canceled or the period of the stop work order or any extension thereof expires, the Contractor shall resume work. The County shall make an equitable adjustment in the delivery schedule, the Contract price, or both, and the Contract shall be modified in writing accordingly if:

*County of Orange
Sheriff-Coroner*

*MA-060-26011342
OC Automated Biometric Identification System (ABI
System) and Sustainment*

*Page 18 of 136
Folder No.: 2809301*

1. The stop work order results in an increase in the time required or in the Contractor's cost properly allocable to the performance of any part of this Contract; and

2. The Contractor asserts its right to an equitable adjustment within 30 days after the end of the period of work stoppage, provided that if the County decides the facts justify the action, the County may receive and act upon a proposal submitted at any time before final payment under this Contract.

If a stop work order is not canceled and the work covered by the stop work order is terminated in accordance with the provision entitled, "Termination" the County shall allow reasonable costs resulting from the stop work order in arriving at the termination settlement.

If a stop work order is not canceled and the work covered by the stop work order is terminated for default, the County shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop work order.

An appropriate equitable adjustment may be made in any related Contract of the Contractor that provides for adjustment and is affected by any stop work order under this clause. The County shall not be liable to the Contractor for loss of profits because of a stop work order issued under this clause.

If any provisions of this agreement are invalid under any applicable statute or rule of law, they are, to that extent, omitted, but the remainder of this agreement shall continue to be binding upon the parties hereto.

26. Equal Employment Opportunity:

Contractor shall comply with U.S. Executive Order 11246 entitled, "Equal Employment Opportunity" as amended by Executive Order 11375 and as supplemented in Department of Labor regulations (41 CFR, Part 60) and applicable state of California regulations as may now exist or be amended in the future. Contractor shall not discriminate against any employee or applicant for employment on the basis of race, color, national origin, ancestry, religion, sex, marital status, political affiliation or physical or mental condition.

Regarding handicapped persons, Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position for which the employee or applicant for employment is qualified. Contractor agrees to provide equal opportunity to handicapped persons in employment or in advancement in employment or otherwise treat qualified handicapped individuals without discrimination based upon their physical or mental handicaps in all employment practices such as the following: employment, upgrading, promotions, transfers, recruitments, advertising, layoffs, terminations, rate of pay or other forms of compensation, and selection for training, including apprenticeship. Contractor agrees to comply with the provisions of Sections 503 and 504 of the Rehabilitation Act of 1973, as amended, pertaining to prohibition of discrimination against qualified handicapped persons in all programs and/or activities as detailed in regulations signed by the Secretary of the Department of Health and Human Services effective June 3, 1977, and found in the Federal Register, Volume 42, No. 68 dated May 4, 1977, as may now exist or be amended in the future.

Regarding Americans with disabilities, Contractor agrees to comply with applicable provisions of Title 1 of the Americans with Disabilities Act enacted in 1990 as may now exist or be amended in the future.

27. Headings:

The various headings and numbers herein, the grouping of provisions of this Contract into separate clauses and articles, and the organization hereof are for the purpose of convenience only and shall not limit or otherwise affect the meaning hereof.

28. News/Information Release:

Contractor agrees that it will not issue any news releases in connection with either the award of this Contract or any subsequent amendment of or effort under this Contract without first obtaining review and written approval of said news releases from County through County's Project Manager.

29. Notices:

Any and all notices, requests demands and other communications contemplated, called for, permitted, or required to be given hereunder shall be in writing with a copy provided to the assigned DPA, except through the course of the Parties' Project Managers' routine exchange of information and cooperation during the terms of the work and services. Any written communications shall be deemed to have been duly given upon actual in-person delivery, if delivery is by direct hand, or upon delivery on the actual day of receipt or no greater than four (4) calendar days after being mailed by US certified or registered mail, return receipt requested, postage prepaid, whichever occurs first. The date of mailing shall count as the first day. All communications shall be addressed to the appropriate party at the address stated herein or such other address as the Parties hereto may designate by written notice from time to time in the manner aforesaid.

Contractor:	IDEMIA Identity & Security USA LLC
Attn:	Julie Feigl
Address:	14 Crosby Dr., Suite 200, Bedford, MA 01730-1451
Phone:	312-858-6649
Email:	Julie.Feigl@ps-idemia.com

County's Project Manager: Sheriff-Coroner/OCCL	
Attn:	Lisa Zinn
Address:	320 N. Flower St., Santa Ana, CA 92703
Phone:	714-834-6356
Email:	lzinn@ocsheriff.gov

cc: Sheriff-Coroner/Procurement Services	
Attn:	Maria Ayala, County DPA
Address:	320 N. Flower St. Santa Ana, CA 92703
Phone:	(714) 834-6360
Email:	mayala@ocsheriff.gov

30. Precedence:

Contract documents consist of this Contract and its exhibits and attachments. In the event of a conflict between or among Contract documents, the order of precedence shall be the provisions of the main body of this Contract, i.e., those provisions set forth in the recitals and articles of this Contract, and then the exhibits and attachments.

31. Subcontracting:

No performance of this Contract or any portion thereof may be subcontracted or otherwise delegated by Contractor, in whole or in part, without first obtaining the prior express written consent of County. Any attempt by Contractor to subcontract or delegate any performance of this Contract without the prior express written consent of County shall be invalid and shall constitute a material breach of this Contract, and any attempted assignment or delegation in derogation of this paragraph shall be void.

In the event that Contractor is authorized by County to subcontract, this Contract shall take precedence over the terms of the agreement between Contractor and subcontractor, and any agreement between Contractor and a subcontractor shall incorporate by reference the terms of this Contract. Contractor shall remain responsible for the performance of this Contract and indemnification of County notwithstanding the County's consent to Contractor's request for approval of a subcontractor. Under no circumstances shall County be required to directly monitor the performance of any subcontractor. All work performed by a subcontractor must be monitored by Contractor and must meet the approval of the County of Orange pursuant to the terms of this Contract.

32. Termination – Orderly:

After receipt of a termination notice from County of Orange, Contractor may submit to County a termination claim, if applicable. Such claim shall be submitted promptly, but in no event later than 60 days from the effective date of the termination, unless one or more extensions in writing are granted by County upon written request of Contractor. Upon termination County agrees to pay Contractor for all services performed prior to termination which meet the requirements of Contract, provided, however, that such compensation combined with previously paid compensation shall not exceed the total compensation set forth in Contract. Upon termination or other expiration of this Contract, each party shall promptly return to the other party all papers, materials, and other properties of the other held by each for purposes of performance of Contract.

*County of Orange
Sheriff-Coroner*

*MA-060-26011342
OC Automated Biometric Identification System (ABI
System) and Sustainment*

*Page 21 of 136
Folder No.: 2809301*

33. Usage:

No guarantee is given by County to Contractor regarding usage of this Contract. Usage figures, if provided, are approximations. Contractor agrees to supply services and/or commodities requested, as needed by County of Orange, at rates/prices listed in Contract, regardless of quantity requested.

34. Usage Reports:

Contractor shall submit usage reports on an annual basis to the assigned Deputy Purchasing Agent of County of Orange user agency/department. The usage report shall be in a format specified by the user agency/department and shall be submitted 90 days prior to the expiration date of Contract term, or any subsequent renewal term, if applicable.

35. Project Manager, County:

The County shall appoint a Project Manager to act as liaison between the County and the Contractor during the term of this Contract. The County's Project Manager shall coordinate the activities of the County staff assigned to work with the Contractor.

The County's Project Manager shall have the right to require the removal and replacement of the Contractor's Project Manager and key personnel. The County's Project Manager shall notify the Contractor in writing of such action. The Contractor shall accomplish the removal within three (3) business days after written notice from the County's Project Manager. The County's Project Manager shall review and approve the appointment of the replacement for the Contractor's Project Manager and key personnel. Said approval shall not be unreasonably withheld. The County is not required to provide any additional information, reason or rationale in the event it requires the removal of Contractor's Project Manager from providing further services under the Contract.

36. Permits and Licenses:

Contractor shall be required to obtain any and all approvals, permits and/or licenses which may be required in connection with the permitted operation as set out herein. No permit approval or consent given hereunder by County in its governmental capacity shall affect or limit Contractor's obligations hereunder, nor shall any approvals or consents given by County as a party to this Contract, be deemed approval as to compliance or conformance with applicable governmental codes, laws, ordinances, rules, or regulations.

37. Order Dates:

Orders may be placed during the term of Contract even if delivery may not be made until after the term of Contract. Order dates take precedence over delivery dates. Contract must clearly identify the order date on all invoices to County.

38. Limitation of Liability:

NOTWITHSTANDING ANYTHING PROVIDED ELSEWHERE IN THIS AGREEMENT, UNDER NO CIRCUMSTANCES WILL EITHER PARTY BE LIABLE FOR THE OTHER PARTY'S CONSEQUENTIAL, INDIRECT, SPECIAL, PUNITIVE OR INCIDENTAL DAMAGES OR LOST PROFITS, WHETHER FORESEEABLE OR UNFORESEEABLE, ARISING OUT OF BREACH OR FAILURE OF EXPRESS OR IMPLIED WARRANTY, BREACH OF CONTRACT,

*County of Orange
Sheriff-Coroner*

*MA-060-26011342
OC Automated Biometric Identification System (ABI
System) and Sustainment*

*Page 22 of 136
Folder No.: 2809301*

MISREPRESENTATION, STRICT LIABILITY IN TORT OR OTHERWISE. TO THE EXTENT ALLOWED UNDER APPLICABLE LAW, IN NO EVENT SHALL EITHER PARTY'S AGGREGATE LIABILITY, EXCLUDING INDEMNIFICATION OBLIGATIONS, ARISING OUT OF OR RELATED TO THIS AGREEMENT, WHETHER ARISING OUT OF OR RELATED TO BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, EXCEED THE TOTAL OF THE AMOUNTS PAID TO CONTRACTOR PURSUANT TO THIS AGREEMENT.

39. Security Requirements:

A. Contractor shall, with respect to all employees of Contractor performing services hereunder:

1. Perform background checks as to past employment history.
2. Inquire as to past criminal felony convictions.
3. Ascertain that those employees who are required to drive in the course of performing services hereunder have valid California driver's licenses and no DUI convictions within two (2) years prior to commencement of services hereunder.
4. Perform drug screening to determine that such employees are not users of illegal drugs or other substances.

B. Criminal Justice Information Services (CJIS) Requirements:

All Contractors staff with physical or logical access to County data shall pass a fingerprint-based state and federal background check consistent with:

- a. 5 CFR 731.106; and/or
- b. Office of Personnel Management policy, regulations, and guidance; and/or
- c. Agency policy, regulations, and guidance.

C. Contractor shall not assign to County property any Contractor personnel as to whom the foregoing procedures indicate:

1. Inability or unwillingness to perform in a competent manner.
2. Past criminal convictions for theft, burglary or conduct causing property damage or mental or physical harm to persons.
3. Where such employee's duties include driving a vehicle, absence of a valid California driver's license or a DUI conviction within the prior two (2) years.
4. Usage of illegal controlled substances as defined by federal law.

- D. If any of the problems identified with respect to Contractor's employees are discovered after assignment of an employee to County property, or if County otherwise reasonably deems an assigned employee unacceptable, Contractor shall remove and replace such employee at the County property.
- E. Nothing herein shall render any employee of Contractor an employee of County.

THE CONTRACTOR'S PERSONNEL REQUIREMENTS:

All employees must pass the County's background check and meet all requirements as set forth below:

1. All personnel to be employed in performance of the work under this Contract shall be subject to security clearance. Clearance must be updated and renewed every twelve (12) months from original date of clearance.
2. No person, who is required to enter a secured facility of the Sheriff, shall be assigned to perform work under this contract that has not received prior clearance from the Sheriff-Coroner Department.
3. Within fifteen (15) days of the effective date of this Contract, Contractor shall prepare and submit a complete and accurate "Contractor Security Clearance" information form for all Contractor's employee who will be working on or who will need access to the Sheriff-Coroner's facilities to perform work covered by this Contract. County project manager shall provide form(s) to Contractor's project manager. Contractor is also responsible for ensuring that anytime an employee is assigned to work on Sheriff-Coroner's facilities under this contract that a Security Clearance form is submitted and approved prior to that employee requiring access to such premises for providing services under this contract.
4. Contractor shall inform employees assigned to perform work within secured facilities of the Sheriff-Coroner that the employee is required to inform Contractor if/when any information provided on the security clearance form changes. Contractor shall submit an updated security clearance form whenever there is a change in information provided by an employee. Contractor shall be responsible for ensuring to submit Security Clearance forms in order to renew the Security Clearance(s) every twelve months. Renewal forms shall be submitted at least ten (10) County working days prior to the expiration of an existing clearance; a security clearance is valid for 12 months from the date of issuance. If Contractor is submitting an updated form due to a change in information, said form shall be submitted within in 10 county working days of the employer becoming aware of the updated information.
5. Contractor Security Clearance information forms will be provided by County Project Manager upon request and will be screened by the Sheriff-Coroner's Department.

6. Contractor Security Clearance information forms shall be thoroughly and accurately completed. Omissions or false statements, regardless of the nature or magnitude, may be grounds for denying clearance.
7. County will not give Contractor the reason an individual's clearance is denied, but will provide explanation to individual affected via U.S. Mail.

E. GENERAL SECURITY REQUIREMENT-AT WORKSITE:

1. When performing work at a Sheriff-Coroner facility, all work areas shall be secured prior to the end of each workday.
2. Workmen shall have no contact, either verbal or physical, with inmates in any facility while performing work under this contract. Specifically:
 - a. Do not give names or addresses to inmates.
 - b. Do not receive any names or addresses from inmates.
 - c. Do not disclose the identity of any inmate to anyone outside the facility.
 - d. Do not give any materials to inmates.
 - e. Do not receive any materials from inmates (including materials to be passed to another individual or inmate).
3. Contractor's personnel shall not smoke or use profanity or other inappropriate language while on site.
4. Contractor's personnel shall not enter the facility while under the influence of alcohol, illegal controlled substances as defined under federal law, or other intoxicants, and shall not have such materials in their possession.
5. Failure to comply with these requirements is a criminal act and can result in prosecution.
6. Contractor's personnel shall plan their activities to minimize the number of times they must enter and exit a facility, i.e., transport all tools, equipment, and materials needed for the day at the start of work and restrict all breaks to the absolute minimum.
7. Contractor's personnel shall follow any special security requirements issued by the on-site contact person or escort Deputy.
8. Contractor's personnel shall report either to the on-site contact person when leaving the facility, temporarily or at the end of the workday.
9. Contractor's personnel shall immediately report all accidents, spills, damage, unusual conditions and/or unusual activities to the on-site contact person or any Sheriff's Deputy.
10. Contractor's personnel shall securely close and check all gates and doors to ensure that they are tightly closed and locked as they enter and exit various areas of the County facilities.

11. Contractor's personnel shall restrict all activities to the immediate work site and adjacent assigned areas necessary to performing work under this Contract.
12. Contractor's personnel shall remain with the assigned escort at all times, unless otherwise directed by the on-site contact person.

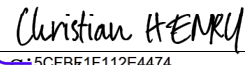
F. POTENTIAL DELAYS/INTERRUPTIONS:

1. Contractor shall acknowledge that the primary purpose of the detention facilities is the safe and secure operation of those facilities.
2. Contractor's personnel who enter a Sheriff facility but have not passed the security screening, or who have falsified the security screening information are subject to immediate removal from the facility. Contractor's personnel who are assigned to work in a Sheriff facility who are determined to have outstanding wants or warrants may be detained by the Sheriff.
3. Contractor's personnel shall immediately comply with all directions and orders issued by Sheriff's personnel, other than changes regarding the quality or quantity of work, which will be controlled by County's project manager.
4. Contractor's personnel may be delayed or denied access to the facility due to unforeseen events that may affect the availability of security escorts.
5. Contractor's personnel may be ordered to leave a facility prior to the completion of their work or the end of the workday by unforeseen incidents occurring within secure environments. Such unforeseen incidents may also cause Contractor's personnel to be held inside the facility until the incident is resolved by the Sheriff's personnel.
6. Contractor may be subject to an inventory requirement where the Contractor shall supply an inventory list of all tools. The Facility will use this list for verification of tools entering and exiting security. Any and all time required to comply with the tool inventory and control program will not be considered a compensable delay and no requests for equitable adjustment in time or additional compensation for this time will be considered

SIGNATURE PAGE

IN WITNESS WHEREOF, the Parties hereto have executed this Contract on the date following their respective signatures.

IDEMIA Identity & Security USA LLC*

Signed by:  5CFBF1E112E4474... Signature	Christian HENRY Name	SVP CLIENT SUCCESS Title	7/2/2026 1:08:16 PM EDT Date
---	-------------------------	-----------------------------	-----------------------------------

DocuSigned by:  ED319502C8634AD... Signature	Krista Crawley Name	Treasurer & Secretary Title	7/2/2026 2:00:16 PM EDT Date
---	------------------------	--------------------------------	-----------------------------------

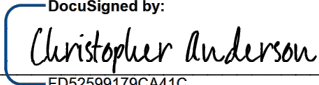
COUNTY OF ORANGE, A political subdivision of the State of California

COUNTY AUTHORIZED SIGNATURE:

	Deputy Agent	Purchasing	
Signature	Name	Title	Date

Approved as to form:

County Counsel

By: 
FD52599179CA41C...
Deputy

Name: Christopher Anderson

Date: 7/2/2026 | 15:23:17 PDT

*If the contracting party is a corporation, (2) two signatures are required: one (1) signature by the Chairman of the Board, the President or any Vice President; and one (1) signature by the Secretary, any Assistant Secretary, the Chief Financial Officer or any Assistant Treasurer. The signature of one person alone is sufficient to bind a corporation, as long as he or she holds corporate offices in each of the two categories described above. For County purposes, proof of such dual office holding will be satisfied by having the individual sign the instrument twice, each time indicating his or her office that qualifies under the above described provision. In the alternative, a single corporate signature is acceptable when accompanied by a corporate resolution demonstrating the legal authority of the signee to bind the corporation.

ATTACHMENT A - SCOPE OF WORK

Table of Contents

1.	INTRODUCTION	1
1.1.	Scope	1
1.2.	Background	1
2.	OVERALL PROJECT REQUIREMENTS	2
2.1.	Management.....	3
2.1.1.	Project Organization.....	3
2.1.2.	Project Planning	3
2.1.2.1.	Project Management Plan.....	4
2.1.2.2.	Integrated Master Schedule	4
2.1.3.	Project Reporting and Reviews	4
2.1.4.	Risk and Issue Management.....	6
2.2.	Security.....	6
2.3.	Configuration Management	6
2.4.	Quality Assurance	7
2.5.	Implementation.....	7
2.5.1.	System Requirements Analysis	7
2.5.2.	Test Planning	7
2.5.3.	Design and Development	8
2.5.4.	Factory Acceptance Test	9
2.6.	Transition	10
2.6.1.	Installation	11
2.6.2.	Data Migration.....	12
2.6.3.	Training.....	12
2.6.4.	System Acceptance Test.....	13
2.6.5.	User Acceptance Test.....	15
2.7.	Sustainment	15
2.7.1.	Preventative Maintenance.....	16
2.7.2.	Troubleshooting	16
3.	OVERALL SYSTEM DESCRIPTION	19
3.1.	Operating Environment.....	19
3.2.	Network Interfaces	19
3.3.	References	19
3.4.	Order of Precedence	20

3.5.	<i>System Services</i>	20
4.	FUNCTIONAL REQUIREMENTS	21
4.1.	<i>Business Rules</i>	23
4.2.	<i>OC ABI System Identification Services</i>	31
4.2.1.	<i>Functional Requirements – WF01 – Tenprint Normal</i>	32
4.2.1.1.	<i>WF01 Inputs</i>	32
4.2.1.2.	<i>WF01 Processing</i>	37
4.2.1.3.	<i>WF01 Outputs</i>	40
4.2.2.	<i>Functional Requirements –WF02– Tenprint Maintenance</i>	41
4.2.2.1.	<i>WF02 Inputs</i>	41
4.2.2.2.	<i>WF02 Processing</i>	41
4.2.2.3.	<i>WF02 Outputs</i>	43
4.3.	<i>OC ABI System Tactical Services</i>	43
4.3.1.	<i>Functional Requirements –WF03– Tactical Services</i>	43
4.3.1.1.	<i>WF03 Inputs</i>	44
4.3.1.2.	<i>WF03 Processing</i>	45
4.3.1.3.	<i>WF03 Outputs</i>	46
4.4.	<i>OC ABI System NIST Image Services</i>	48
4.4.1.	<i>Functional Requirements –WF04– NIST Image Retrieval</i>	48
4.4.1.1.	<i>WF04 Inputs</i>	48
4.4.1.2.	<i>WF04 Processing</i>	49
4.4.1.3.	<i>WF04 Output</i>	50
4.5.	<i>OC ABI System Forensic Services</i>	50
4.5.1.	<i>Functional Requirements –WF05–Reverse Latent Search Responses</i>	50
4.5.1.1.	<i>WF05 Inputs</i>	50
4.5.1.2.	<i>WF05 Processing</i>	51
4.5.1.3.	<i>WF05 Outputs</i>	52
4.5.2.	<i>Functional Requirements –WF06– Forward Latent Services</i>	53
4.5.2.1.	<i>WF06 Inputs</i>	53
4.5.2.2.	<i>WF06 Processing</i>	55
4.5.2.3.	<i>WF06 Outputs</i>	58
4.5.3.	<i>Functional Requirements –LCMS– Latent Case Management System</i>	59
4.6.	<i>OC ABI System Admin Services</i>	63
4.6.1.	<i>Functional Requirements –ADMIN– System Administration Management</i>	63
4.6.1.1.	<i>Admin Reports</i>	64
4.6.1.2.	<i>Admin Processing</i>	68

4.6.1.3.	<i>Admin Outputs</i>	68
5.	TECHNICAL REQUIREMENTS	69
5.1.	<i>Storage Capacity Requirements</i>	69
5.2.	<i>Performance Requirements</i>	71
5.2.1.	<i>Throughput Requirements</i>	71
5.2.2.	<i>Response Time Requirements</i>	73
5.3.	<i>Accuracy Requirements</i>	74
5.4.	<i>Safety Requirements</i>	76
5.5.	<i>Security Requirements</i>	76
5.6.	<i>Environmental Requirements</i>	77
5.7.	<i>Form & Fit Requirements</i>	78
5.8.	<i>Reliability, Maintainability, and Availability Requirements</i>	80
5.8.1.	<i>Backup and Recovery</i>	80
5.8.2.	<i>Service Availability and Restoration Requirements</i>	81
5.9.	<i>Network requirements</i>	82
5.9.1.	<i>Current Communications Infrastructure</i>	83
5.9.2.	<i>New Communications Infrastructure</i>	84
5.10.	<i>Qualification Requirements</i>	86
5.10.1.	<i>Verification Methods</i>	86
5.10.2.	<i>Verification Conditions</i>	86

Table of Figures

Table 1 Management and Technical Reporting, Meetings and Reviews	5
Table 2 Equipment Compliment to be Installed by Agency Site (Delivery & Service Locations)	11
Table 3 Response Timing by Severity	16
Table 4 OC ABI System Workflows Mapped to Service	21
Table 5 OC Business Rules.....	23
Table 6 WF01: Identification TOTs Supported for Workflow 1	32
Table 7 WF01: Identification Services Input Requirements.....	33
Table 8 Tenprint Identification Services Processing Requirements	37
Table 9 WF01: Cal-ID Identification Services Output Requirements	40
Table 10 WF02: Tenprint Maintenance Services Input Requirements	41
Table 11 WF02: Tenprint Maintenance Services Processing Requirements	42
Table 12 WF02: Tenprint Maintenance Services Output Requirements	43
Table 13 WF03: Tactical Services TOTs Supported	44
Table 14 WF03: Tactical Services Input Requirements	45
Table 15 WF03: Tactical Services Processing Requirements.....	45
Table 16 WF03: Tactical Services Output Requirements.....	47
Table 17 WF04: Image Retrieval TOTs Supported.....	48
Table 18 WF04: NIST Image Retrieval Services Input.....	49
Table 19 WF04: NIST Image Retrieval Services Processing Requirements	49
Table 20 WF04: NIST Image Retrieval Services Output Requirements	50
Table 21 WF05: Reverse Latent Search Input TOTs Supported	51
Table 22 WF05: Reverse Latent Services Input Requirements	51
Table 23 WF05: Reverse Latent Services Processing Requirements	51
Table 24 WF05: Reverse Latent Searches Services Output Requirements	53
Table 25 WF06: Forward Latent Search TOTs Supported.....	53
Table 26 WF06: Forward Latent Services Input Requirements.....	54
Table 27 WF06: Forward Latent Services Processing Requirements.....	56
Table 28 WF06: Forward Latent Services Output Requirements	59
Table 29 LCMS: Latent Case Management Maintenance TOTs Supported	60
Table 30 LCMS: LCMS Services Processing Requirements.....	60
Table 31 Cal-ID Administrator Functional Requirements.....	64
Table 32 Storage Capacities by Image Type by Year.....	70
Table 33 Temporary Storage Capacity Requirements	70
Table 34 OC ABI System Storage Capacity Requirements.....	71
Table 35 Average Daily Transaction Rates per Calendar Year	72
Table 36 Peak Rates for Throughput Requirements	72
Table 37 Throughput Requirements	73
Table 38 Response Times per Class of Transaction Type	73
Table 39 Response Time Requirement	74
Table 40 Accuracy Rates by Transaction Type	75
Table 41 Accuracy Requirements.....	75
Table 42 Safety Requirements	76
Table 43 InfoSec Requirements.....	76
Table 44 Power Requirements	78
Table 45 Dynamic Allocations of Software Licenses.....	78

Table 46 Form and Fit Requirements for Workstations..... 78

Table 47 Backup & Recovery Requirements..... 80

Table 48 Allowed Minutes..... 81

Table 49 Unplanned Downtime Credit 81

Table 50 ABI System Availability Requirements..... 82

Table 51 List of Current OC Cal-ID Interfaces and Networks Utilized 84

Table 52 List of New OC ABI System Interfaces and Networks 84

Table 53 New OC ABI Network Requirements 85

Table 54 Lights Out Accuracy Verification Conditions 87

1. INTRODUCTION

1.1. Scope

This Scope of Work (SOW) defines the work to be performed by the Contractor responsible for the development, deployment, and sustainment of a new Orange County Automated Biometric Identification (OC ABI) System. The Contractor will be responsible for furnishing all personnel, facilities, equipment, material, supplies, training, support, and management and will perform all functions necessary to design, develop, document, integrate, test, and deploy the OC ABI System¹ as set forth in this SOW, including overall project requirements and detailed functional and technical system requirements. All the requirements in this SOW will apply to the Contractor's deliverable products and services.

1.2. Background

The Cal-ID Bureau of the Orange County Crime Laboratory (OCCL) has been operating an Automated Biometric Identification System for 10 years, providing services to its own members, local police departments within the county, the California Highway Patrol, and others. The services offered include:

- Identification of subjects with prior criminal histories through searches of the fingerprints and palmprints through the Automated Biometric Identification System (ABI System)
 - As part of the booking process for criminals
 - As part of the registration process for sex and arson registrants
 - As part of law enforcement contacts with persons in the field (Mobile ID)
 - As part of the background investigation of people applying for positions of trust with the county
 - In response to ad hoc requests from investigators
- Assignment of local file number (the Orange County Number or OCN) for new arrestees. These OCNs are used in numerous county business processes.
- Identification of criminals by searching latent fingerprints from crime scenes through the ABI System and analyzing the candidates
- Identification of deceased subjects for the Coroner Division of the Orange County Sheriff's Department
- Connectivity to the California Department of Justice (CalDOJ) AFIS and through it access to the Federal Bureau of Investigation's (FBI) Next Generation Identification (NGI) System.
- Support to the Secure Communities program – where arrest records are forwarded through the FBI to the Department of Homeland Security (DHS).

The current system is serving the county well, but increased flexibility and new functionality are desired that the current system cannot support. In 2023, the Orange County Remote Access Network (RAN) Board voted to replace the aging system and OCCL began the process to competitively procure and replace the current ABI System with a more advanced multi-modal automated biometric identification system that can build upon the robust functionality and performance of the current system, as well as support the latest biometric interoperability standards and more easily grow and adapt over time.

¹Note that the requirements for the Cal-ID Network have been incorporated in this scope of work and therefore any reference to the OC ABI System or the OC ABI Project by definition includes the Cal-ID Network.

The replacement system *shall* include:

- Receipt, storage, searching using demographic fields and forwarding of biometric modalities, such as facial, SMT, and iris images, as these and other capabilities evolve and become more widely available
- Use of the Extended Feature Set (EFS) standard for latent interoperability, as recommended by the US Department of Justice. The EFS approach will be used internally for re-encoding latents for use in cross-jurisdictional searches against systems from other vendors. Searches going to CalDOJ will have to conform to the standard approach being used there
- Robust Latent markup tools, to include allowing examiners to assign levels of confidence to minutiae
- Flexibility to adopt new CalDOJ and FBI types of transactions (TOTs)
- Support for Mobile/ DNS tactical TOTs and rapid DNA at booking
- Receipt, storage, creation, and use of new record types as defined by ANSI/NIST-ITL 1-2011 Update: 2015

Other than palmprints, there are no requirements that the new system offer the biometric searching of additional modalities; however, the new OC ABI System should be poised to easily add modalities at later date(s). Currently, Cal-ID is not prepared to utilize biometric matching capabilities in these additional modalities, however the OC ABI System *shall* support demographic based searches for all of the Type-10 Record's textual fields resulting in lists that link the query to any related images (e.g., search for tattoos of a burning monkey would search the appropriate Type-2 and Type-10 SMT fields).

The Integrated Law and Justice Agency of Orange County (ILJAOC), a joint power agreement with all law enforcement agencies in Orange County, has contracted with Dataworks Plus for a Face Recognition System to be interfaced with the OC ABI System and Administered by the OC Crime Lab. The expectation is that the OC ABI System will be interfaced with that system, for the limited extent of real-time sharing of booking photos captured from liveness transactions and processed by the ABI System. After an undefined number of years under management by the ILJAOC, the Face Recognition program may be transitioned under the control of the local Remote Access Network Board (RAN Board), and therefore OCCL – Cal-ID.

Additionally, OC desires a system that offers continuity of operations capabilities to permit OCCL to implement all or selected services in the following scenarios:

- natural and/or manmade disaster
- Prolonged disruption (network or otherwise) between external agencies and central site
- Prolonged disruption (network or otherwise) between central site and Cal-DOJ

2. OVERALL PROJECT REQUIREMENTS

The Contractor *shall* furnish all personnel, facilities, equipment, supplies, and support; and *shall* perform all functions necessary to design, develop, document, integrate, test, and deploy the OC ABI System, an IDEMIA I&S Multi-Biometric Identification System 5.x Cloud Solution hosted in the Microsoft Azure Government cloud environment, as set forth in this SOW. It is not the intention of the OCCL to direct that

the final solution be an on-premise system, with vendor supplied workstations and central site equipment, or a cloud solution with web services accessed by OCCL owned workstations. All mentions of site-specific equipment, delivery and installation requirements are provided in the event the final solution includes hardware delivered under this contract by the contractor to remote sites and/or OCCL central site.

The Contractor *shall* analyze the requirements; design, develop, and document the OC ABI System; conduct Factory Acceptance Test (FAT), transition (install the system, migrate the databases, and train personnel) to the new OC ABI System; conduct System Acceptance Test; support User Acceptance Test; provide support to the operational OC ABI System; and manage said activities.

The Contractor *shall* provide OCCL with a comprehensive set of user, system, and management documentation. The Contractor *shall* deliver those items identified in the Contract Deliverables (CDRL) presented in SOW Appendix A. All CDRL items will be in Contractor format. The Contractor *shall* provide documentation electronically and, if requested by OCCL, in hardcopy format. All CDRL items are subject to OCCL approval and acceptance in order to satisfy the terms and conditions of the Contract.

All work under the OC ABI System Contract *shall* be performed within the territory of the United States and *shall* be performed by United States citizens or Lawful Permanent Residents of the United States. Data and information provided by the OCCL *shall* not be communicated to anyone who is not a United States citizen or Lawful Permanent Resident of the United States. The one exception is that the Contractor algorithm development and algorithm maintenance can occur at the Contractor's facilities independent of where they are located.

Contractor staff that perform work at OCCL facilities or who will be authorized to access OCCL records, data processing equipment, or criminal justice related information must pass an Orange County Sheriff's Department criminal background check, which may include being fingerprinted.

2.1. Management

The Contractor is responsible for providing appropriate and sufficient project management services to plan, monitor, report, track, and manage the successful execution of the OC ABI System Contract.

2.1.1. Project Organization

The Contractor *shall* establish a formal organization responsible for executing the total effort required by the Contract. A clear line of project authority *shall* exist among all organizational elements (including subcontractors). Roles, responsibilities, authority, and reporting requirements *shall* be established for each organizational element.

The Contractor *shall* appoint a Contractor Project Manager (CPM) who is a full-time paid employee of the Contractor. The CPM *shall* serve for the duration of the development and deployment phases of the Contract effort and *shall* have responsibility for the accomplishment of all tasks to be performed under the Contract. The CPM *shall* be responsible for the Contractor's technical, cost, and schedule performance. The CPM *shall* have full authority over all Contractor project activities and resources. The CPM *shall* be the principal interface between the project and the Contractor's corporate organization, between the project and its associated Contractors, and between the Contractor and OCCL project management for all matters relating to the Contract.

2.1.2. Project Planning

The Contractor *shall* prepare and submit detailed plans governing all activities to be performed under the OC ABI System Contract. Planning documents *shall* be delivered in accordance with the provisions of SOW Appendix A.

2.1.2.1. Project Management Plan

The Contractor **shall** develop and maintain the Project Management Plan (PMP, CDRL OC-01). The PMP **shall** provide details on activities that will be completed in each phase of the Contract. The PMP will:

- Establish the project organization, structure, authority, roles, responsibilities, and internal reporting relationships
- Define the interfaces between the Contractor and OCCL project management
- Establish reporting mechanisms and documentation
- Identify Contractor resources (requirements and assignment)
- Establish project management procedures and policies
- Incorporate² the project Integrated Master Schedule
- Identify any constraints or assumptions.

2.1.2.2. Integrated Master Schedule

The Integrated Master Schedule (IMS, CDRL OC-04) is an integrated and resource loaded schedule containing the detailed tasks necessary to ensure successful program execution, including all dependencies and inter-task relationships. The IMS **shall** contain the Contract milestones, accomplishments, and discrete tasks/activities from Contract award to the completion of the Development Phase of the Contract. The IMS **shall** be an integrated, resource loaded, logically linked schedule that correlates to the SOW and Contractor plans. It **shall** display summary, intermediate, and detailed schedules, and **shall** accommodate periodic analysis of progress to date.

The IMS **shall** include significant external interfaces and critical items from suppliers, teammates, or other detailed schedules that depict significant and/or critical elements and OCCL furnished equipment or information dependencies for the entire Contractual effort in a single integrated schedule. The determination of significant and critical **shall** be agreed to by the OCCL and the Contractor.

The IMS **shall** indicate status according to the Contractor's management control system and **shall** be submitted no less frequently than monthly. The IMS **shall** be formatted as a Microsoft 365 Project schedule. This plan will form the basis for discussions at each status meeting. OCCL will have sole authority to approve / authorize changes to the IMS after Contract award – at the cost milestone end-date level.

2.1.3. Project Reporting and Reviews

The Contractor **shall** provide management and technical reports and conduct management and technical reviews and meetings throughout the term of the Contract. Attendees at management and technical reviews and meetings will include OCCL project personnel, OCCL support Contractors, the Contractor, and subcontractors as necessary to meet the objectives of the meeting or review.

The Contractor **shall** participate in a project kickoff meeting at the OCCL facility within 10 working days after Contract award. The purpose of the meeting is to introduce key OCCL and Contractor personnel, to discuss plans, to discuss the status of any risks or issues, and to address any other issues OCCL project management or the Contractor wish to discuss.

² The Integrated Master Schedule may be incorporated by reference.

The Contractor **shall** conduct a monthly Project Management Review (PMR). The first PMR **shall** be held within 30 days after Contract award. Each PMR **shall** address:

- Schedule status against the IMS
- Proposed changes to the IMS
- Technical accomplishments
- Risks, Issues, and Action Items
- Planned activities
- Quality Assurance findings and plans for corrective action.

The PMRs **shall** also address selected technical and programmatic topics as directed by OCCL project management. To the extent feasible, the Contractor will schedule PMRs concurrent with reviews and Technical Interchange Meetings (TIMs).

When the PMR is held at the Contractor's facility, the Contractor **shall** provide facilities for conducting the PMR and facilities for OCCL-only meetings and side meetings. The Contractor **shall** make available the key personnel necessary to carry out an efficient and effective agenda and **shall** provide presentation materials and supporting data.

Except for the User Acceptance Test (UAT), Test Readiness Review (TRR), and System Acceptance Review (SAR), the Contractor **shall** conduct those reviews specified in Table 1 and provide required deliverables CDRL OC 05, 06, and 07. The OCCL will conduct, with Contractor support, the UAT, TRR and the SAR. Table 1 provides a list of locations where management and technical reporting meetings and reviews will be held.

Table 1 Management and Technical Reporting, Meetings and Reviews

Meeting/Review Type	Location
Project Kickoff Meeting	OCCL Facility
System Requirements Review (SRR)	Contractor Facility
System Design Review (SDR)	Contractor Facility
FAT Test Readiness Review (FAT TRR)	Contractor Facility
Pre-Ship Review (PSR)	Contractor Facility
System Acceptance Test Test Readiness Review (SAT TRR)	OCCL Facility
Operational Readiness Review (ORR)	OCCL Facility
UAT Test Readiness Review (UAT RR)	OCCL Facility
System Acceptance Review (SAR)	OCCL Facility
Project Management Reviews (PMR)	Contractor Facility

The Contractor **shall** propose a format for Monthly Status Reports and the OCCL Project Manager is responsible for approving the format. The Contractor **shall** provide Monthly Status Reports (CDRL OC-08) for review and approval by the OCCL Project Manager. These status reports **shall** include, at a minimum, a report on activities completed during the reporting period, activities planned for the next reporting period, and issues, risks, and action item status. The Monthly Status Report will include as an attachment the IMS (CDRL OC-04) showing completion status for all active tasks and deliverables.

The Contractor **shall** track all progress against the approved PMP, other approved plans, and the IMS at least monthly and **shall** report status against the IMS at least monthly.

2.1.4. Risk and Issue Management

For the purpose of this SOW, risk is a measure of the potential inability to achieve overall project objectives within defined cost, schedule, and technical constraints and has two components: 1) the probability/likelihood of failing to achieve a particular outcome, and 2) the consequences/impacts of failing to achieve that outcome. Issues are similar to risks except that the probability of failure is 1.0 (or 100 percent) if corrective action is not taken.

The Contractor **shall** prepare a Risk and Issue Management Plan (RIMP, CDRL OC-02) and perform risk and issue management activities in accordance with the (OCCL approved) RIMP. The RIMP **shall** identify the organizations responsible for risk and issue management and the roles and responsibilities of each. It **shall** specify the risk and issue management processes (Identification and Reporting, Analysis, Prioritization, Mitigation Planning, Resolution, and Monitoring) and reports and tools to be used to manage risk.

The Contractor **shall** identify and analyze risk areas, identify, and analyze specific risks, develop risk mitigation options and plans, monitor risks to determine how risks have changed, document the overall risk management program, and report identified risks and the status of risk mitigation efforts to OCCL project management.

2.2. Security

The Contractor **shall** implement a security program in compliance with the CJIS Security Policy. All Contractor supplied facilities or systems **shall** provide protection and control of all OCCL provided information, equipment, documentation, and network access. The Contractor **shall** document its security program in an In-Plant Security Plan (CDRL OC-09).

2.3. Configuration Management

The Contractor **shall** develop a Configuration Management Plan (CMP, CDRL OC-10) and implement a Configuration Management (CM) program in accordance with that plan. The CMP **shall** identify the organization responsible for the CM function. The CMP **shall** establish Configuration Management Responsibilities and Authority, identify Configuration Management Resources and Tools, establish Configuration Management Policies, and define Configuration Management Phasing and Milestones. The CMP **shall** establish procedures for Configuration Identification, Configuration Control, Configuration Status Accounting, and Configuration Audits and Reviews. The CMP **shall** implement controls to ensure that only authorized changes are made to the CMP.

The Contractor **shall** develop and maintain control of CDRL items from Contract award through Contract completion. The Contractor **shall** recommend a formal process for Configuration Control of all CDRLs to be followed between OCCL and Contractor through the life of the Contract. The Contractor **shall** turn change control of CDRL items over to OCCL at Contract completion.

The Contractor **shall** participate in OC ABI Project configuration control boards. OC ABI Project configuration control boards will approve any changes to CDRL items once those items are approved by OCCL.

2.4. Quality Assurance

The Contractor **shall** develop a Quality Assurance Plan (QAP) (CDRL OC-11) and implement a Quality Assurance (QA) program in accordance with the OCCL approved QAP. The Contractor's QA program **shall** provide for an independent Contractor QA organization. The Contractor's QA program **shall** assure that all supplies and services submitted to the OCCL for acceptance conform to Contract requirements. The Contractor **shall** ensure product quality by inspection, controlling nonconforming material, controlling subcontractor quality assurance, and by having effective control of calibrated equipment. The Contractor **shall** perform and document inspections prior to requesting acceptance of the work by the OCCL.

OCCL reserves the right to perform audits and inspections of Contractor (and subcontractor) conformance to any or all Contractual requirements at any time during the performance of the Contract. Due notice will be provided to the Contractor prior to conducting audits or inspections. Subcontract requirements **shall** permit participation in audits and inspections by OCCL and OCCL support Contractors.

2.5. Implementation

2.5.1. System Requirements Analysis

The Contractor **shall** review this scope of work and conduct the analyses and modeling necessary to validate the requirements of the OC ABI System SOW. The Contractor **shall** identify errors, ambiguities, conflicts, incompletes, and other defects in the OC ABI System SOW. The Contractor **shall** recommend changes to the OC ABI System SOW where those changes would correct defects or result in benefit to the OCCL (e.g., enhance the overall functionality, performance, or reliability of the OC ABI System, reduce life cycle costs, increase maintainability, shorten the schedule, or reduce program risk).

The Contractor **shall** conduct the analyses and participate in the TIMs necessary to develop the interface requirements between the OC ABI System and the incumbent livescan systems, the Sheriff's jail, and records management systems. The Contractor **shall** document those requirements in Interface Requirements Specification(s) (CDRL OC-31).

The Contractor **shall** conduct a System Requirements Review (SRR). At SRR, the Contractor **shall** present the results of the verification effort and the supporting data. The Contractor **shall** document recommended changes to the OC ABI System SOW in Specification Change Requests (CDRL OC-12) and **shall** support these recommendations (e.g., with trade study results and cost benefit analyses).

Upon successful completion of the SRR, the OC ABI Program Manager will authorize the Contractor to proceed with system design. OCCL will incorporate any approved changes (Specification Changes Requests) in a revision to the OC ABI System SOW

2.5.2. Test Planning

The Contractor **shall** develop and execute a comprehensive test program, spanning all phases of development and all levels of assembly of the OC ABI System. The Contractor **shall** develop a Test and Evaluation Master Plan (TEMP, CDRL OC-13).

- The TEMP **shall** govern all levels of testing, from the unit level through the fully assembled and integrated (with external systems) system.

- The TEMP **shall** govern all phases of test, from unit testing through completion of System Acceptance.
- The TEMP **shall** govern formal (acceptance) and informal testing.

For unmodified Commercial-Off-the-Shelf (COTS) hardware and software, COTS vendor-supplied test results may be used to verify requirements satisfaction below the level of the fully integrated system.

The test program will consist of formal and informal tests. The formal tests are: Factory Acceptance Test (FAT), System Acceptance Test (SAT), and User Acceptance Test (UAT). All other tests are informal. The Contractor **shall** prepare Test Plans, Test Procedures, and Test Reports for FAT and SAT (CDRLs: OC-16 through 19). The Contractor **shall** create and maintain the Requirements Verification Traceability Matrix (RVTM, CDRL OC-03) to map the requirements of the OC ABI System SOW to the FAT and SAT Test Procedures. In order for testing to be executed multiple times (i.e., dry runs and production), the test procedures for formal tests **shall** be at the keystroke level. FAT and SAT **shall** be preceded by Test Readiness Reviews (TRRs) at which the OC ABI Project Manager must authorize the Contractor to proceed with conducting the test before testing may begin. FAT and SAT **shall** be followed by formal reviews [i.e., PSR and Operational Readiness Review (ORR)]. UAT will be conducted by OCCL and will be preceded by a UAT TRR and followed by SAR.

2.5.3.Design and Development

The Contractor **shall** design, develop, and document the new OC ABI System to satisfy the requirements of this SOW. The Contractor **shall** design, develop, and fabricate or procure all hardware, software, and data components of the system(s), with the exception of the operational data to be provided by OCCL.

The Contractor **shall**, to the maximum extent feasible, use non-proprietary hardware and software in developing and implementing the OC ABI System. The Contractor **shall** develop the OC ABI System Design Specification and the Bill of Materials (BOM). The Contractor **shall** conduct a System Design Review (SDR) and present their design for OCCL approval. The SDR **shall** be a comprehensive and in-depth review of the design as documented in the OC ABI System Design Specification and the BOM. Deliverables **shall** include CDRLs OC-03, 05, 06, 07, 21, and 22.

The design as depicted in the OC ABI System Design Specification and the SDR presentation materials **shall** represent a partitioning of the OC ABI System into design entities and describe the important properties and relationships among those entities. For purposes of this SOW, a design entity is an element (component) of the system that is structurally and functionally distinct from other elements and that is sold separately by the Contractor, a subcontractor, or a commercial vendor – or is developed specifically and solely for this Contract.

For each design entity, the OC ABI System Design Specification and the SDR presentation materials **shall**:

- Identify the entity by name or another unique identifier
- Provide a mapping of each requirement from the OC ABI System SOW to each design entity, and include a decomposition of the OC ABI System SOW requirements if a decomposition is necessary to uniquely allocate those requirements to design entities
- Identify the entity type: Hardware or Software, Commercial Off The Shelf, reused with modification, or developmental (to be developed) and if to be modified or developed whether or not it will be included in future commercial offerings

- Provide a description of the specific functional, performance, interface, security, or design requirements, and special requirements that must be met by the entity that are not included in the specification(s)
- Provide a description of the relationships of the entity with other entities – to include the *uses* or *requires the presence of* relationship for an entity

For each OC ABI System external interface – including user interfaces – the OC ABI System Design Specification and the SDR presentation materials **shall** describe the methods of interaction and the rules governing those interactions. The methods of interaction include the mechanisms for invoking or interrupting system function(s), for communicating through parameters, common data areas or messages, and for direct access to internal data. The rules governing the interaction include the communications protocol, data format, acceptable values, and the meaning of each value. This attribute **shall** provide a description of the input ranges, the meaning of inputs and outputs, the type and format of each input or output, and output error codes. For information systems, it should include inputs, screen formats, and a complete description of the interactive language.

The Contractor **shall** design the interface between the OC ABI System and existing biometric devices (Livescans, Parsons Javelin+ Mobile ID), Face Recognition System, and the Sheriff's jail and records management system(s) and document those designs in Interface Design Document(s) (CDRL OC-32) to include network components, architecture, and any commercial services required.

The OC ABI System Design Specification and the SDR presentation materials **shall** identify and describe all of the resources external to the design that are needed by this OC ABI System to perform its function. The interaction rules and methods for using the resource **shall** be specified. The OC ABI System Design Specification and the SDR presentation materials **shall** provide information about items such as physical devices (printers, workstations), software services (operating system services), and processing resources (CPU cycles, storage devices, and bandwidth). The design **shall** also specify power and physical space requirements, if applicable.

At the SDR, the Contractor **shall** present evidence (e.g., results of analyses, computer model and simulation results, benchmark results, mapping of requirements to design entities, and vendor-supplied specifications) to demonstrate that the design satisfies the requirements of the OC ABI System SOW.

The Contractor **shall** develop [code, fabricate, and/or procure] the hardware and software entities that comprise the new OC ABI System, including continuity of operations capabilities, and integrate those entities into the complete OC ABI System to conform to the requirements of this SOW, the OC ABI System Design Specification (CDRL OC-20) and the BOM (CDRL OC-21). The Contractor **shall** conduct all developmental tests and evaluations necessary to demonstrate readiness of the system to undergo FAT.

2.5.4. Factory Acceptance Test

The Contractor **shall** conduct Factory Acceptance Test (FAT). The purpose of FAT is to demonstrate that: 1) the OC ABI System satisfies the requirements of this OC ABI SOW, 2) that the migrated Operational Database satisfies the requirements of this SOW, 3) that the Disaster Recovery System is integrated with and operates as expected, and 4) that the supporting documentation completely and correctly describes user interactions, operational procedures, and the design as implemented.

The Contractor **shall** conduct a Test Readiness Review to demonstrate their and the OC ABI System's readiness to conduct FAT. Deliverable includes CDRL OC-14. The Contractor **shall**:

- Provide an overview/walk-through of the FAT activity, which is to occur.

- Describe the test environment (equipment, software, databases, and interfaces) and how it differs from the operational environment (e.g., the use of simulators to represent external interfaces).
- Identify and discuss the rationale for and implications of any proposed redlines to documents (i.e., test plans, test procedures, user documentation, installation documentation).
- Report on the status of all Action Items, Risks, and Issues that are currently open or have been closed since the previous PMR. Plans and/or options for their resolution will be addressed.
- Identify any test procedures (CDRL OC-15) that the Contractor expects will fail or be incomplete during FAT execution, address the implications of those failures/incompletes for operations, and discuss plans/options for correcting the cause(s) of those failures.

At the culmination of the Contractor presentation, the OC ABI Project Manager will authorize – or not authorize – the Contractor to proceed with the conduct of FAT.

If authorized by the OC ABI Project Manager, the Contractor **shall** conduct FAT using the approved test procedures (including any redlines approved by the OC ABI Project Manager at the TRR) (CDRL OC-15). Test results and satisfaction of each and every requirement of the OC ABI SOW **shall** be noted and witnessed by OCCL personnel or OCCL support Contractors. The Contractor **shall** document the test results, requirements satisfaction, and failures or incompletes in the FAT Test Report.

The Contractor **shall** conduct FAT on the OC ABI System configured as specified in the OC ABI System Design Specification approved at the System Design Review with any changes to the Design Specification and the BOM approved by OCCL. FAT **shall** be executed using OCCL approved Test Procedures.

At the culmination of FAT, the Contractor **shall** conduct a Pre-Ship Review (PSR). The purpose of the PSR is to demonstrate the readiness of the Contractor and the readiness of the OC ABI System to be deployed to the OCCL. The Contractor **shall**:

- Present the results of FAT
- Review the status of all Action Items, Risks, and Issues that were presented at the FAT TRR and any changes to their status, and review any new Action Items, Risks, or Issues that arose as a result of FAT
- Address the readiness of required deliverables (e.g., equipment, software, databases) to deploy, and personnel to conduct installation
- Address the readiness of the facilities to receive the deliverables
- Address the readiness of training plans, materials, and training personnel to provide training, and the readiness of trainees to receive training
- Provide an overview of plans for conduct of SAT and UAT.

Upon successful completion of PSR, the OC ABI Project Manager will authorize the Contractor to ship the OC ABI System to the operational facility and begin deployment activities. Deliverables include CDRLs OC16, and 18.

2.6. Transition

The Contractor **shall** prepare a comprehensive Transition Plan (CDRL OC-30) that guides the process of migration of OCCL and other users (e.g., police departments) from the current ABI System to the new OC ABI System. The plan **shall** address parallel operations, synchronization of the current and new repositories up to the final minutes, timing of training relative to hardware installation, and sequence of switching services, migration objectives, activities, required resources, schedule (may be included in the IMS), tools,

assumptions, OCCL furnished items (e.g., equipment, information, data, facilities, or personnel), and external dependencies.

2.6.1. Installation

The Contractor **shall** conduct site surveys and analyses to determine the facilities requirements (e.g., heating, air conditioning, lighting, electrical power, structural loading, and physical access) for:

1. The facilities hosting the OC ABI System equipment at the OCCL central site
2. Those external locations hosting latent equipment

The Contractor **shall** review the network configuration at the OCCL central site and at each location hosting latent equipment to ensure that the equipment to be installed is compatible with existing or planned network topologies. The Contractor **shall** document any incompatibilities between the OC ABI System equipment to be installed and the facilities or networks and identify any required facilities or network modifications in an Installation Survey Report (CDRL OC-22).

The Contractor **shall** prepare a Version Description Document with the complete instructions necessary for a third party to install and configure all hardware, software, and data associated with each deployment. The document will include site-specific installation information (CDRL OC-23).

The Contractor **shall** prepare an Installation Plan (CDRL OC-24) to document installation tasks, responsibilities, schedule, resource requirements, equipment layout, cabling, and testing to verify correct installation of equipment and software at OCCL and locations hosting latent equipment. The Contractor **shall** prepare Installation Drawings (CDRL OC-25) to define equipment layout and cabling.

The Contractor **shall** (subject to OCCL approval) deliver and install any contractor provided equipment and software at the OCCL central site and external sites to include MBIS frontend workstation applications. OCCL and/or the agency will install Photoshop and other productivity applications. in accordance with the requirements for dynamic software license allocation. The Contractor **shall** check the installation and perform the necessary data conversions to prepare the equipment and software to support SAT and operations.

The Contractor **shall** (subject to OCCL approval) deliver and install the software deliveries at the OCCL and police department (PD) locations hosting workstation, printer, and scanner equipment. The Contractor **shall** check the installation and perform the necessary data conversions to prepare the equipment and software to support SAT and operations.

If the Contractor does not provide workstations, the Contractor **shall** deliver and install all Contractor provided software on end user equipment (having provided minimum requirements for such equipment) and ensure all Contractor and end user provided applications function properly together.

Table 2 Equipment Compliment to be Installed by Agency Site (Delivery & Service Locations)

Location	Number of Workstations	Number of Printers
OCCL – ID (6 th Floor) 320 N. Flower Street, Santa Ana, CA 92703	11	5
OCCL – Cal-ID (5 th Floor) 320 N. Flower Street, Santa Ana, CA 92703	14	5
Buena Park PD	1	1

Location	Number of Workstations	Number of Printers
6640 Beach Blvd, Buena Park, Ca 90621		
Costa Mesa PD 99 Fair Dr, Costa Mesa, CA 92626	1	1
Fountain Valley PD 10200 Slater Ave, Fountain Valley, CA 92708	1	1
Fullerton PD 237 W Commonwealth Ave, Fullerton, CA 92832	1	1
Garden Grove PD 11301 Acacia Pkwy, Garden Grove, CA 92840	1	1
Huntington Beach PD 2000 Main St, Huntington Beach, CA 92648	1	1
Irvine PD 1 Civic Center Plz, Irvine, CA 92606	1	1
Newport Beach PD 870 Santa Barbara Dr, Newport Beach, CA 92660	1	1
Santa Ana PD 60 Civic Center Plz, Santa Ana, CA 92701	1	1
Totals	34	19

2.6.2. Data Migration

Following OCCL approval of the design at the System Design Review, the Contractor **shall** provide storage infrastructure for OCCL to load ANSI/NIST compliant biometric files (including known and unknown digital friction ridge images and mug photos) from the record archive system and/or the matchers of the existing system, and any associated pdf documents from the archive and then Contractor **shall** load them into the new OC ABI System with all appropriate transaction-related information. The unknown (or latent) impressions will be electronic images. There are no paper forms to scan. The files **shall** be available in the operational OC ABI System for search, retrieval, record management (e.g., consolidation or deletion), and exporting as ANSI/NIST transactions or as ANSI/NIST Record Types (individually or in batches) based on selectable fields, or as pdf documents, in accordance with the procedures documented in Appendix B of this SOW. Deliverables include CDRL OC-29.

2.6.3. Training

The Contractor **shall** develop User Manuals (CDRL OC-26) addressing all user functions for all user types (i.e., tenprint and latent examiners; and system administrators) specific to the OC ABI System design. User documentation **shall** describe in detail the components, functions, and operations of each workstation type. Operations descriptions **shall** include a list and description of all error conditions, as well as the associated error messages displayed, and the action required of the operator for each error condition. Each OC ABI System workstation **shall** be provided with online user documentation, including a video vault, that is resident on the workstation or readily accessible by each workstation.

The Contractor **shall** prepare a Training Plan (CDRL OC-27) and Training Materials (CDRL OC-28) – for example, computer-based training, videos, guides, manuals and conduct ad hoc user training to support

testing, as well as the courses described below. Training courses **shall** be conducted at the OCCL central site.

The Contractor **shall** conduct three types of courses and design the content to coincide with evolving levels of familiarity and skill with the new system and to be scheduled at the following intervals:

- Initial
 - 3 months after Go-Live
 - 6 months after Go Live
 - One year after Go-Live
- 1) *Tenprint Operations Training* – This course **shall** cover all OC ABI System tenprint functionality. The course will provide hands-on³ instruction on the tenprint workstation for automated manual and tenprint processing. The course will cover tenprint manual and automated workflows, displays, data entry, quality assessment of all biometrics, and all functionalities. The course will cover the basic and administrative user functions of the NIST archive. This course also includes the method by which NIST standard fingerprint transactions can be run against non-OCCL systems. This course will also cover palmprint and slap print entry and quality assessment functions. The number of persons to receive Tenprint Operations Training is 25. The initial training is to take place in Orange County no earlier than two weeks prior to the start of UAT. The training classes are to be provided at least two times to cover availability of personnel.
 - 2) *Latent Operations Training* – This course will cover all OC ABI System latent functionality associated with the new OC ABI System. The course will provide hands-on instruction on the latent workstation. The course will cover use of the LCMS, EFS, latent manual workflows, displays, data entry, quality assessment, and all functionalities. The course will cover the basic user functions of the NIST archive. This course includes the method by which NIST standard fingerprint transactions can be run against non-OCCL systems. The course will include instruction in best practices for ensuring optimum accuracy. This course will also cover latent palmprint and slap entry, quality assessment, and matching functions. The persons to receive Latent Operations Training at OCCL are the same 25 people who are to receive the Tenprint Operations Training. After they are trained then there are between 20 and 35 other latent personnel from police departments within the county who are to receive Latent Operations Training.
 - 3) *System Administration Training* – This course will cover all OC ABI System, database, and security administration functionality associated with the new OC ABI System. The course will provide hands-on instruction on all OC ABI System equipment, software, and databases. The course will include instruction in best practices for ensuring optimum performance and system security, as well as report generation, generating system and operator metrics, and user account management. The course will provide the administrators detailed training on the system workflows. The persons to receive System Administration Training are all at OCCL and there are 8 of them. The training classes are to be provided at least two times to cover availability of personnel.

2.6.4. System Acceptance Test

³ “Hands-on” requires that each student have access to a fully functional workstation with OC ABI System functionality and an appropriate training database during the training sessions. This requirement applies to the Tenprint Operations Training, the Latent Operations Training, and the System Administration Training.

The Contractor **shall** conduct System Acceptance Test (SAT). The purpose of SAT is to demonstrate that – in the operational environment: 1) the OC ABI System satisfies the requirements of this SOW 2) that the migrated Operational Database satisfies the requirements of this SOW, and 3) that the supporting documentation completely and correctly describes user interactions, operational procedures, and the design as implemented.

The Contractor **shall** conduct a TRR to demonstrate their and the OC ABI System's readiness to conduct SAT. Deliverables include OC-17. The Contractor **shall**:

- Provide an overview/walk-through of the SAT activity that is to occur. Describe the test configuration and environment (equipment, software, databases, and interfaces). Any differences between the test and operational configuration and environment will be identified⁴
- Describe precautions taken to ensure that operational databases will not be corrupted or cause the users of interfacing systems to take actions based on the belief that test messages are actual operational messages
- Identify and discuss the rationale for and implications of any proposed redlines to documents (i.e., test plans, test procedures, user documentation, installation documentation)
- Report on the status of all Action Items, Risks, and Issues that are currently open or have been closed since the PSR. Plans and/or options for their resolution will be addressed
- Identify any test procedures (CDRL OC-18) that the Contractor expects will fail or be incomplete during SAT execution, address the implications of those failures/incompletes for operations, and discuss plans/options for correcting the cause(s) of those failures

At the culmination of the Contractor presentation, the OC ABI Project Manager will authorize – or not authorize – the Contractor to proceed with the conduct of SAT.

If authorized by the OC ABI Project Manager, the Contractor **shall** conduct SAT using the approved test procedures (including any redlines approved by the OC ABI Project Manager at the TRR). The Contractor **shall** conduct SAT on a fully configured and deployed – in the operational environment – OC ABI System, using the operational database, and using operational external interfaces (no simulations of external interfaces). The Contractor **shall** take necessary precautions to ensure that SAT execution does not corrupt the operational databases (including the databases of interfacing systems) or cause the users of interfacing systems to take actions based on the belief that test messages are actual operational messages. Test results and satisfaction of each and every requirement of the OC ABI System SOW **shall** be noted and witnessed by OCCL personnel or OCCL support Contractors. The Contractor **shall** document the test results, requirements satisfaction, and failures or incompletes in the SAT Test Report (CDRL OC-19).

⁴ While it is the intention that the test and operational configurations and environments be identical, OCCL acknowledges that this may not be entirely feasible (e.g., it may be necessary to instrument the test configuration to demonstrate requirements satisfaction).

2.6.5. User Acceptance Test

At the culmination of SAT, the Contractor ***shall*** conduct an Operational Readiness Review (ORR). The purpose of the ORR is to demonstrate the readiness of the deployed OC ABI System, databases, documentation, and user personnel to begin User Acceptance Test. The Contractor ***shall***:

- Present the results of SAT
- Review the results of user training
- Review the status of all Action Items, Risks, and Issues that were presented at the SAT TRR and any changes to their status, and review any new Action Items, Risks, or Issues that arose as a result of SAT
- Address the readiness of required deliverables (e.g., equipment, software, databases) to deploy, and personnel to conduct User Acceptance Test
- Deliver to OCCL the software (installed executables) and the licenses for all commercial software components of the OC ABI System, and copies of all source code included in the operational OC ABI System that is not part of a commercial product

Upon successful completion of ORR, the OC ABI Project Manager will authorize the conduct of User Acceptance Test.

2.7. Sustainment

The Contractor ***shall*** provide all updates and upgrades to their deliverables whenever new Contractor product releases are introduced during the term of the Contract and shall include Technology refresh upgrade and support which includes annual diagnostic review, backend solution component replacement (as needed), new feature trials, and CJIS- compliant backend hardware hosting. The Contractor ***shall*** provide corrective maintenance at no additional cost to OCCL for any error, malfunction, or defect in Contractor supplied equipment, software, or documentation that, when used as delivered, fails to perform in accordance with Contractor's officially announced, written, or published, technical specifications through the term of the Contract.

Whether the system is designed as an on-premise or cloud system, Contractor ***shall*** include a Sustainment Plan for refreshing the technology of the entire solution, to include peripherals, workstations, backend equipment, storage, operating system, software upgrades, algorithms, and product platform upgrades. Deliverable includes OC-34.

Updates and Upgrades

Contractor shall provide one technology refresh during the contract period at a mutually agreed upon time. Both updates and upgrades can be obtained through Contract Program Manager. Contractor will notify the OCCL Project Manager if a programming error is discovered that affects the performance or functionality of the OCCL ABI System. The Contract Program Manager and the OCCL Project Manager then establish a schedule and acceptance procedure for installing and assessing the correction. Contractor Software Engineering and Database Administration group and Information Technology group keep all program managers informed of upgrade availability. The OCCL Project Manager may request an upgrade through the Contractor CPM at any time after it becomes officially available.

Additionally, Contractor's support model shall provide feature enhancements such as software releases, improved graphical user interfaces (GUIs,) reporting functionality, and enhanced security features.

2.7.1. Preventative Maintenance

The Contractor **shall** periodically perform inspection and adjustment of the equipment and replacement of defective parts thereof by dispatching maintenance personnel at the frequency recommended by the manufacturer to keep the equipment in good operating condition. The machine time required **shall** be scheduled monthly during working hours agreed to by OCCL and with at least 24 hours' notice.

Scheduled down time for performing preventative maintenance on any portion of the system **shall** not exceed two (2) hours in any month unless agreed to in advance by OCCL.

2.7.2. Troubleshooting

The period of maintenance coverage for the system **shall** be 24 hours a day, seven days a week, 52 weeks a year.

The Contractor **shall** provide technical support services on-call 24 hours a day 365 days a year. The Contractor **shall** maintain a Help Desk and **shall** accept requests for help telephonically, via email, or via a customer help desk portal and document them in trouble tickets. The Contractor **shall** acknowledge problem reports telephonically or by email within fifteen (15) minutes. Response timing and support cost credits for failure to adhere to response and resolution timing is further described by severity in the table below. Unless otherwise noted, responses are expected 24x7x365. Contractor **shall** provide regular updates in writing to OCCL while the ticket is open, including but not limited to:

- Upon assignment to a technician or engineer
- When additional technical and administrative resources have been engaged
- When the status of the issue changes
- Before and after a significant action has been taken on the system
- Throughout the investigation of the issue
- When the resolution time is at risk of extending beyond those outlined in the table below

Table 3 Response Timing by Severity

SEVERITY LEVEL	SEVERITY DESCRIPTION	DEFINITION	REQUIRED RESPONSE TIME	REQUIRED RESOLUTION TIME
1	Critical Service Error	• Issue affecting entire system or single critical production function • System down or operating in such a degraded state that the County cannot utilize the system in a commercially reasonable manner • Data integrity at risk • Widespread access interruptions such that the County cannot utilize the system in a commercially reasonable manner	Acknowledge the trouble ticket by phone or email within 15 mins and actively working on the issue within 30 mins of being reported by OCCL. SUPPORT COST CREDIT for failure to respond to any	Resolve within 2 hours of initial notification SUPPORT COST CREDIT for failure to resolve any support request within the required time: Ten Percent (10%) of the monthly support

		System or component failures that prevent subjects from being enrolled, images from being searched or exported, or responses from being delivered. This includes the failure of any central and remote site equipment and any cloud hosting equipment that prevent users from accomplishing their work.	support request within the required time: Ten Percent (10%) of the monthly support cost for the month in which the failure begins and ten percent (10%) of such monthly cost for each additional hour or portion thereof that the service error is not responded to within the required response time	cost for the month in which the failure begins and ten percent (10%) of such monthly cost for each additional hour or portion thereof that the service error is not resolved within the required resolution time, with the amount doubling for each additional one-hour increment
2	High Priority Service Error	- Primary component failure that materially impairs the performance of the system, including the ability to enter new data into the system or access existing data - Data entry or access is materially impaired on a limited basis, such as one workstation failure with other workstations available in same work location - System or component failures that prevent subjects from being enrolled, images from being searched or exported, or responses from being delivered. This includes the failure of fewer than all central and remote site equipment and any cloud hosting equipment that prevent users from	Acknowledge the trouble ticket by phone or email within 15 minutes of being reported by OCCL. Actively working on the issue within one (1) hour of initial report SUPPORT COST CREDIT for failure to respond to any support request within the required time: Five percent (5%) of the monthly support cost for the month in	Resolve within 4 hours of initial report SUPPORT COST CREDIT for failure to resolve any support request within the required time: Five percent (5%) of the monthly support cost for the month in which the failure begins and five percent (5%) of such monthly cost for each additional hour or portion thereof that the

		accomplishing their work.	which the failure begins and five percent (5%) of such monthly cost for each additional hour or portion thereof that the service error is not responded to within the required response time	service error is not resolved within the required resolution time, with the amount doubling for each additional one-hour increment
3	Minor Service Error	• System is operating with minor issues that can be addressed with a workaround • a System component is not functioning, but the System is still useable for its intended purpose, or there is a reasonable workaround	Acknowledge the trouble ticket by phone or email within 30 minutes of being reported by OCCL. Actively working on the issue within three (3) hours of initial report	Resolve within 30 calendar days of initial report SUPPORT COST CREDIT for failure to resolve any support request within the required time: After the 30-day period expires, four (4%) of the monthly support cost for the first additional hour or portion thereof that the service failure remains unresolved, with the amount doubling for each additional on-hour increment

The Contractor ***shall*** provide a review mechanism between contractor and OCCL, at least weekly, of all trouble tickets, including general descriptions, priority, support level assigned and status. Contractor ***shall*** provide OCCL with the ability to review all past tickets and filter by timeframe, description, device, severity, etc. Deliverable includes CDRL OC-33.

3. OVERALL SYSTEM DESCRIPTION

3.1. Operating Environment

The OC ABI System will be a cloud-based system, with any on-premise equipment to be housed in the OCCL building in a computer room with a raised floor and additional air conditioning and remote site equipment located in office environments, which will limit acceptable noise and thermal characteristics of the equipment. There is no specific requirement for the system to be on-premise or cloud based. OCCL's objective is to procure the system that best meets the requirements outlined in this SOW.

3.2. Network Interfaces

Currently, the MorphoBIS system operates in a complex set of private law enforcement networks controlled by different organizations and not all operating at the same security level. The Contractor **shall** analyze the network environment, then propose changes to the network to meet the technical requirements specified in this SOW, as well as the protocol and capacity requirements identified in their network analysis task. Contractor **shall** work with OCCL and police agencies to develop, install and integrate proposed network changes.

3.3. References

The current versions of the following documents are incorporated to the extent that they are explicitly referenced in this document. Externally controlled documents (e.g., the Federal Bureau of Investigation (FBI) Criminal Justice Information System (CJIS) Security Policy) are specified as to the exact version. Note that some of these documents might, in turn, reference other documents.

The documents below, of the exact issue shown, form a part of this SOW to the extent referenced herein. Referenced documents cited within documents referenced in this SOW ("First Tier" references) **shall** be considered compliance documents to the extent referenced herein. Documents cited ("Second Tier" references) within the "First Tier" references **shall** not be considered for compliance.

The OCCL recognizes that some of the standards and their associated data items, identified below, will change. Throughout this effort, the Contractor or the OCCL may propose following newer standards and their associated data items that replace or supersede those below. To substitute newer standards and their associated data items the Contractor **shall**: 1) identify existing standards and data items to be replaced; 2) identify new standards and associated data items proposed for use; 3) provide a rationale for using the new items including cost, schedule, performance, and supportability impact; 4) receive OCCL approval, and 5) as appropriate, receive County Board of Supervisors approval.

The following documents are incorporated into this SOW to the extent referenced herein:

- California Livescan Transmission Specifications 1-10 (Various revision dates)
- CalDOJ Transaction Router Gateway (TRG) (v1.10 03/14/2023)
- CalDOJ Technical Finger Search/Response (TFS/TFR) Type of Transactions Design Specifications, Version 2.8
- CalDOJ Secure File Transfer – Electronic notification pickup
- CalDOJ Livescan Device Secure Submission Specifications, (v1.10, April 23, 2024)
- American National Standards Institute/National Institute of Standards and Technology (ANSI/NIST) ANSI/NIST-ITL 1-2011 Update: 2015 Data Format for the Interchange of Biometric and Forensic Information (December 2011)

- FBI CJIS Electronic Biometric Transmission Specification (EBTS), Version 11.1, 242-HQ-A6687913-SYSDOCU Serial 121 (November 17, 2022) (Note: Cal-DOJ is compliant with version 10 for submission to FBI)
- Proposition 69, the “DNA Fingerprint Unsolved Crime and Innocence Protection Act
- Expansion of State’s DNA Data Bank Program on January 1, 2009: Collection of DNA Samples From All Adults Arrested for Any Felony Offense, 08-BFS-02
- Latent Interoperability Transmission Specification (January 2013)
- Compression guidance for 1000 ppi palm and hand friction ridge imagery (NIST IR 8260), July 1, 2019
- ANSI/ASTM E3235-21 Standard Practice for Latent Print Evidence Imaging Resolution
- Criminal Justice Information Services (CJIS) Security Policy, Version 5.9.5 (07/09/2024)

3.4. Order of Precedence

In the event of conflict between specific technical requirements, the Contractor *shall* notify OCCL project management of each conflict and propose a resolution. The resolution of each conflict *shall* be subject to OCCL approval.

3.5. System Services

The overall OC ABI System will support several services. The high-level description of each service is listed below. The workflows associated with each service are detailed in Section 4.

Identification Services (Tenprint Criminal and other transactions) – provides services to OC local law enforcement agencies to search and link transactions where the biometric data matches an enrolled identity or establishes a new identity. Identification Services also include Tenprint Maintenance, which includes maintenance capabilities of all known friction ridge repositories (i.e., in the Archive, working files, and the matchers) as well as providing Cal-ID staff capabilities to correct erroneously entered demographic fields, and consolidate, seal and delete records.

Tactical Services (Mobile ID and Rapid Identifications) – provides services to OC local law enforcement agencies and cross-jurisdictional systems to rapidly identify subjects at the county level, and conditionally forwards the transactions onto the CalDOJ, the national level, and/or cross-jurisdictionally. These services are sometimes included in Identification Services when describing Automated Fingerprint Identification Systems (AFIS).

Forensic Services [Criminal Unknown or Deceased] – links latent fingerprints and palmprints submitted with manual intervention by examiners or other authorized cross-jurisdictional systems, as appropriate, to known enrollment identities. In the case of deceased persons where only low-quality fingerprints are obtainable, they are submitted as forensic services. The new system will provide a robust latent case management system (LCMS) to include the ability to handle demographic based photo [mug shot and Scars, Marks and Tattoos (SMT)] search retrieval requests. These services are often described as Investigative Services when describing an AFIS

Image Retrieval Services – provides services to authorized OC local law enforcement agencies and cross-jurisdictional systems to request and retrieve ANSI/NIST image records from the county level as well as at the national level. These requested images can be used for various purposes such as forensic matching and tenprint maintenance.

Administrative Services – supports the Cal-ID Administrators and supervisors with capabilities such as: adding new operators; changing passwords; adding and deleting users; performing demographic-based search and image retrieval requests and managing workflows. It is used for generating reports on overall System use and on specific encounter results.

Communications Services – provides secure connectivity among the OCSD criminal justice elements and provides secure connectivity between the Police Departments in OC that have livescans and/or latent workstations and the OCCL facility, to include the new OC ABI System. These services also support secure links with the CalDOJ criminal justice information systems and through them to the national systems. Some ULW workstations within the county use secure links directly to the national systems. Those ULW devices will not have to be on the OC ABI network when using that direct connectivity to national systems.

4. FUNCTIONAL REQUIREMENTS

This SOW describes the functional and technical requirements for the provision of a replacement system for OC and establishes a baseline for use during the life of the replacement system. It will be placed under configuration control by the OCCL and maintained as part of the replacement system technical baseline.

There are eight workflows that will be utilized on the OC ABI System, as displayed in Table 4. Some of the workflows are not the traditional, one-sequence-that-must-be-followed workflows. These include latent case management where an examiner can start any appropriate subtask and follow it with any other appropriate subtask in a non-deterministic way. For instance, a latent examiner might open a case, mark the region of interest, and perform image pre-processing tasks; and then decide to go back and re-mark the region of interest and start image pre-processing again.

The OC ABI System will provide simplified workflows that will make use of new technologies and new processing techniques in providing increased flexibility for users and Cal-ID Administrators.

This section provides the System functional requirements for the OC ABI environment. As listed above, there are multiple high-level classes of service associated with the new OC ABI System. The classes of services are:

- Identification
- Tactical
- Forensic
- Image Retrieval
- Administrative
- Communications

Table 04 is a summary of all workflows. For each workflow, the appropriate service is identified, and some high-level characteristics are documented.

Table 4 OC ABI System Workflows Mapped to Service

Workflow	Service	Characteristics
WF01: Tenprint	Identification	Includes 1:1 and/or 1:n with optional forward to another AFIS; OC ABI System can include known fingerprints, palmprints, and photos in the case of criminal and other transactions. Mandatory logging

Workflow	Service	Characteristics
Criminal & Other		of all transactions. Receipt/retention of multiple NIST responses, and conditional forwarding of responses to the originator.
WF02: Tenprint Maintenance	Identification	Includes 1:1, updates, modifications, seals and deletions to known tenprint, palmprint, and photo records in the ANIS/NIST Archive and the matchers. These changes can optionally be forwarded to CalDOJ and the FBI. Receipt/retention of multiple NIST responses and conditional forwarding of responses to the originator.
WF03: Rapid Identification	Tactical	Includes 1:n and optional forwarding to another AFIS, and can also be received from other AFIS. Receipt/retention of multiple NIST responses, and conditional forwarding of responses to the originator. Can have less than ten fingerprints in a transaction.
WF04: NIST Image Retrieval	Image Retrieval	Includes NIST Image Requests from OC Agencies for known images from the ANSI/NIST Archive and returning responses to originator. Also supports forwarding OC agencies' requests to other AFIS and processing responses from other AFIS back to the originator.
WF05: Reverse and Latent Search Results Response	Forensic	Includes unsolicited notification results from the OC ABI System and other AFIS such as CalDOJ/FBI. These can be results of a reverse latent search, possible match against a retained latent or a delayed examiner hit/no hit determination notification. Reverse latent notifications require forwarding to the originating OC terminal and/or examiner ID for resolution.
WF06: Latent Search-Forward	Forensic	Includes 1:1 and/or 1:n, finger and/or palms latent search, from OC Agencies or other external AFIS, returning NIST responses to originator. Optional update to Unsolved Latent Repository (USL) and ANSI/NIST Archive. Optional cascading latent search request to other AFIS systems based on latent examiners direction, conditional cascaded Latent-to-Latent Search. Processing NIST responses from other AFIS and making them available through the Latent Case Management System.
LCMS: Latent Case Management	Forensic	Includes Latent Repository and ANSI/NIST Archive update and optional cascading of a maintenance transaction to another AFIS. This is the core of the Forensic services – examiners using OC ABI System latent services will have access to the LCMS tools, logs, and image and case management services.
Administrative Management	Administrative	Includes Administrative Functions that support the Cal-ID Administrator and supervisor with the capability to add, modify, and delete new operators, users, biometric devices, manages workflows defaults, thresholds, etc. for each Type of Transaction (TOT),

Workflow	Service	Characteristics
		requesting ORI (Originating Agency Identifier), biometric device ID, using an intuitive easy-to-use user interface The Administrative functions also include report generation, system performance monitoring and notifications, troubleshooting, and demographic based image search and retrieval.

4.1. Business Rules

There is a set of business rules associated with the OC ABI System and detailed below. These rules reflect the commonalities among the transaction types and the services offered by Cal-ID. The purpose of establishing and documenting business rules is to identify requirements that would normally be stated in more than one workflow and thus in the pursuit of clarity are only presented once but are referenced in the various workflows and technical requirements, as appropriate.

Table 5 OC Business Rules

Business Rule ID #	Business Rule
BisRule001	Record ownership: Internal and external agencies will only be able to view and print the Type-1 and Type-2 Fields and other record types including but not limited to Types 4/14, 7, 9, 10, 13, 15, 17, 18, 19, 20, and 21 as determined by the Cal-ID record dissemination parameters specified for the requesting examiner, ORI, and the requested record's TOT, ORI and biometric device ID. - The subset that non-owners and unauthorized OCCL staff can view is limited to the fields as specified by OCCL. - When the originating ORI is the same as the file records ORI, and/or the OCCL examiner is qualified to view the contents of the records, all fields present in the record will be available for review.
BisRule002	Master Cross Index (MCI): The System will maintain and update the OC ABI System master cross index where: The MCI will only allow one active Orange County Number (OCN) per unique subject as identified by the OC ABI System and/or Cal-ID staff. When an Active OCN/TCN is returned as part of a candidate list, the OC ABI System will allow the examiner to select a candidate(s) and bring it up for a side-by-side review against the search record: - to include reviewing all events registered to the selected candidate's OCN without exiting the review screen - to include reviewing the permitted textual attributes and photos

Business Rule ID #	Business Rule
	All MCI activities (to include assignment and changes due to consolidations and/or record purges) are to be logged, retained indefinitely, and available for administrative reporting.
BisRule003	Number of events per subject in matchers: • LT-TP If the design includes a separate set of matchers dedicated for latent to tenprint searches, and those matchers do not store all events for latent matching, the OC ABI System is to store at least three Complete sets of Final fingerprints for Latent-Tenprint (LT-TP) matching, where all 20 fingers' minutiae are to be loaded into the matchers for each set. 1. The Complete Sets per active OCN are to be stored in the LT-TP matchers directly. 2. Upon receipt of subsequent Final Record to be enrolled, the OC ABI System will generate a composite record with the best 20 fingers based on all "available" transactions per the individual NIST Fingerprint Image Quality (NFIQ) scores or the vendor selected quality algorithm BisRule013. The OC ABI System will then store the composite along with the two most recent available Final transactions in the matchers. • TP-TP Identification For tenprint-to-tenprint searches, the OC ABI System is to store all Complete sets of Final fingerprints for Tenprint-Tenprint (TP-TP) matching against known tenprints, where all 20 fingers for each incident are to be loaded into the matchers. • TP-TP Tactical If the design includes a separate set of matchers dedicated for tactical searches, then the OC ABI System is to store a Complete set of Final fingerprints for tactical Tenprint-Tenprint (TP-TP) searches against known tenprints. The first Final transaction per active OCN is stored in the tactical TP-TP matchers directly. The second and subsequent Final transaction(s) enrolled will cause the system to generate a composite record with the best 20 fingers using all "available" transactions based on the individual NFIQ scores or the vendor selected quality algorithm per BisRule013 • PLT-KP The OC ABI System is to store at least one Final palmprint set (full palm, upper, lower, and writers, when available) for forward latent searching against known palmprints. The first Final Record is to be stored in the PLT-KP matchers directly. The palm quality algorithm(s) selected by the vendor are to be stored in Field 15.024 of the Final Record along with the generated palm quality score(s) and also logged for each palm image per BisRule013. If a second and/or subsequent Final palmprint Record is available and if it contains one-or-more higher quality image(s), then its minutiae will replace the initially enrolled palm minutiae in the matchers. 1. When there is an Administrative Seal or Deletion of a transaction and/or any palms/ fingers in that transaction are actively assigned in a composite in the matchers, the OC ABI System is to remove the sealed/ deleted transactions

Business Rule ID #	Business Rule
	from all of the matchers and automatically replace them with other available Final transactions. If any of the Sealed/deleted finger/ palms were used in any of the composites, the OC ABI System is to regenerate a new composite using only available best quality Final transactions fingers/palms for this subject. If there are no other available transactions, the OCN subject is to be removed from the matchers completely. 2. When there is a consolidation of multiple OCN subject's folders, the OC ABI System will delete the contents of the matchers from all of the targeted consolidation OCN subjects and will then regenerate all of the aforementioned matcher contents using all available Final transactions from all of the consolidated subject's folders, applying all of the aforementioned guidelines. Note Well: For each composite fingerprint record in the matchers there will be a pointer to the source transaction for each image and examiners will be able to use that information to view the entire source transaction. Definitions: Final transaction: 1) When there are no changes made to the original "tenprint" transaction throughout the OC ABI System processing, the original transaction will be deemed the Final transaction. 2) When there are any changes made to the original transaction (including textual data fields and images), such as in Quality Control, the additional complete modified transaction will be additionally stored in the ANSI/NIST Archive and will be then deemed the Final transaction. Complete Set: a complete set of images associated with a transaction 1) Tenprint – represents all available fingers, including rolled, plains and/or flats (Record Type-4 or 14), up to 20 fingers per transaction. 2) Palm – represents a set of "full palms", upper, lower, and writers when available (3 or 4 possible images per hand). Available: Active Final transactions, i.e., non-Sealed, non-deleted.
BisRule004	Verification Packets: Verification packages will include the original images and all candidate images (or pointers to them) and event information. These packages will be prepared for all transactions, including automated match/no match determinations and all resulting manual and automated determinations to support administrative monitoring purposes. Verification packages will be retained in the work queues for a predefined number of candidates to include the highest matcher scored OCN at the top of the candidate list.

Business Rule ID #	Business Rule
	Multiple candidates bearing the same OCN will be consolidated into a single OCN “folder” with the highest scored transaction or master being presented as one of the 10 candidates. Note: It is possible that a latent verification package of 10 candidates can contain up to 3 sets of images (1-20 images per set), per candidate, in the 10 OCN folders, as the candidate list length increases so will number of images. All Auto Matches, Auto No-Matches and Indeterminate(s) are to be flagged accordingly and are subject to being manually changed by an examiner before a final determination is made. Verification packages will be generated for all tenprint and tactical transactions. The resulting automated and manual determinations will be retained and the candidates’ lists will be able to be reviewed by Cal-ID staff for a period, determined by the Cal-ID administrator.
BisRule005	Hierarchical Searches The OC ABI System will send tenprint/palmprint/photo transactions with the native scanning resolution, except where business partners require transcoding of friction ridge images to 500ppi per the target agency’s specifications, in which case: • the transaction will include the transcoded records not the 1000ppi records • the Type-1 will reflect the new transaction details The OC ABI System will send latent transactions with the latent image stored as a Type-13 Record, except where business partners require that it be sent in a different Record type, in which case: • the transaction will reflect the target agency’s preferred latent image Record type • the Type-1 will reflect the new transaction details The OC ABI System will send photo transactions with the native scanning resolution, except where business partners require lower resolution images per the target agency’s specifications, in which case: • the transaction will include the down sampled records not the native scans • the Type-1 will reflect the new transaction details The OC ABI System will remove any Record types not acceptable by a target system and adjust the transaction accordingly.

Business Rule ID #	Business Rule
	If the OC ABI System has modified the original transaction (e.g., correcting sequence errors or charges), hierarchical transactions will use the modified transaction with the corrections and with the final OCN.
BisRule006	Check For Duplicate Transaction Control Number (TCN) and Booking Number (BKN): The OC ABI System will check the TCN and BKN of each received transaction and compare it to the ANSI/NIST Archive and all work queues for TCNs and BKNs to determine if the new TCN and BKN is duplicate of previously accepted by the system or currently in process. All transactions with duplicate TCNs and BKNs will be rejected with a clear plain specific language description of the error response transaction (ERRT). The error response <i>shall</i> be clearly understood by the livescan operator. Note Well: There will be cases where a transaction will be rejected and the submitting agency will be asked to correct and to resubmit the transaction without changing the TCN or BKN. In these cases, even though the rejected transaction is stored in the ANSI/NIST Archive, since there is no previously accepted use of that TCN or BKN, the OC ABI System should accept it. Note Well: Criminal transactions, per DNA Proposition 69, may lead to two transactions with the same TCN and BKN assignment. One will be an early search at CalDOJ of the plain impressions to determine if the subject needs DNA collection and then a normal criminal transaction will follow with the same TCN and BKN.
BisRule007	ANSI/NIST Archive Storage – The OC ABI System is to store the following: A complete copy of each “accepted” and “rejected” inbound transaction to the OC ABI System will be stored, including all responses from an External AFIS. If any transaction is modified (e.g., sequence error corrections or charge corrections) during processing, a complete copy of the modified transaction will be added to the ANSI/NIST Archive. Each transaction’s TCN (original, modified, Final, DNS, and rejected transactions), will have an associated entry in the archive index that will identify the status. A complete copy of all responses generated by the OC ABI System will be added to the ANSI/NIST Archive. A complete copy of all transactions forwarded by the OC ABI System will be added to the ANSI/NIST Archive. It <i>shall</i> not be assumed that the accepted transaction represents the forwarded transaction if the forwarded transaction is constructed or re-constructed after the original transaction. That is, if the system parses the accepted transaction in order to build a forwarded transaction, the resulting forwarded transaction <i>shall</i> also be stored.

Business Rule ID #	Business Rule
	Applicant transactions and any ERTTs generated by the ABI System will be added to the ANSI/NIST Archive. (Note: Orange County policy prohibits Applicant transactions from being searched and enrolled in the local criminal biometric database) The OC ABI System ANSI/NIST Archive will generate indices using OCCL defined Type-1, Type-2, and Type-10 text data fields present in the transaction, any forwarded transactions, and any response transactions in order to support latent and administrative demographic searches of the ANSI/NIST Archive. System shall support searching for exact match, close match, wild card search, and keyword search. Primary search tool shall be by the most common criteria: OCN, BKN, TCN, SCN, CII/SID, FBI, LSID, FIN, ATI numbers. Examples of additional common search criteria include: • Date Added • Date range • TOT • First name • Middle name • Last name • DOB • ERTTs by BK#, TCN#, SCN# • File type • ORI • Originating agency • Gender • File Control number (FCN) • DNA barcode • Rejection reason • Livescan/mobile ID username • Fingerprint Date Search results shall be presented in a logical display, with target record clearly identified.
BisRule008	Assignment of OCNs: The OC ABI System will automatically assign the next available sequential OCN to new subjects. OCNs will never be reused. OCNs that have been inadvertently pre assigned (either manually and/or via a conversion effort) will be marked as “unavailable” within the sequential new OCN table and skipped over by the sequential OCN assignment process. All instances of skipping over a sequential number will be logged and reported to the system Administrator. The assigned OCN shall populate NIST Field 2.112
BisRule009	Printing Cards, Facial Images and SMTs:

Business Rule ID #	Business Rule
	When CalDOJ data fields are present, the OC ABI System will use the standard current California fingerprint and palmprint card formats specific to the TOT found in the 1.04 Field (per CalDOJ card format specifications). When only FBI Fields are available, the OC ABI System will use the standard current FBI fingerprint and palmprint card formats specific to the TOT found in the 1.04 Field (per FBI card format specifications). The OC ABI System shall also allow for printing any single image to a freestyle format, where the entire image is printed and not restricted by any particular template or frame. When printing, the OC ABI System will use an FBI Electronic Biometric Transmission Specification (EBTS) Appendix F certified printer to print on paper or card stock. When printing photos (faces and SMTs), they <i>shall</i> be in color. Photos <i>shall</i> be printed at a selectable size and orientation on the paper and include all associated booking information.
BisRule010	Temporary OC ABI System Storage: The OC ABI System uses temporary storage to buffer a copy of each transaction received and forwarded. Only after all internal and external responses are finished (i.e., OC ABI System, CalDOJ, FBI, DHS, other, etc.), and the settable period of time (up to 30 days) has elapsed can all temporary files and/or Quality Control (QC) & Verification packets be automatically deleted from temporary storage. If the temporary storage is full, the OC ABI System will overwrite the oldest record and send the administrator a notification or indicate on an administrator dashboard
BisRule011	Dynamic Workflow Assignments and Logging: Each of the processing workflows will be dynamically determined by the “processing parameters” for each transaction by originating ingested TOT, ORI and biometric device ID (e.g. Live Scan Identification (LSID) number, Mobile ID device number). This will include parameters that control field parsing, record/field entry defaults, QC parameters, 1:1 and 1:n verification match/no-match thresholds, priority defaults, Repository retention, Archive retention, auto-cascaded reverse latent searches or not, auto cascade onto other AFIS such as CalDOJ, FBI or other AFIS, and response dissemination. A complete copy of these processing parameters will be included in the activity logs for each transaction, linked to the associated transaction TCN. The design and implementations of these parameters will be left up to the selected vendor. The initial values will be established during the development phase.
BisRule012	Cross-Jurisdictional Searches: The OC ABI System will: Ingest such in-bound transactions [TP-TP (image based), LT-TP (image based and/or EFS Type-9), and PLT-KP (image based and/or EFS Type-9)], add them to the archive,

Business Rule ID #	Business Rule
	process them locally, and return identification decisions or candidates to the submitters based on whatever agreement has been negotiated. Retain is always set to N and priority is always set to 9 – unless an agreement has been reached with the external system giving them retention rights for unsolved latents or higher priorities, in which case the system will use the defaults for that business partner's transactions. Permit users to create and send outbound TP-TP and forward latent searches to other systems and receive and process the responses; selectively using either the Extended Feature Set (EFS) Profiles 0, 1, 2, or 3 or an appropriate Type-9 encoding for forward latent searches. Per BisRule007, ANSI/NIST Archive Storage, applies to all cross-jurisdictional searches.
BisRule013	Image Quality Assignment: For all transactions and/or retained records that contain images, (1) The OC ABI System will generate and store the NFIQ scores for each rolled and plain finger into the Field 2.022 field of the original and Final transaction and log them in a data file for each finger. a. If the vendor can improve their internal matching using an approved finger quality methodology, the vendor can elect to use an additional finger quality algorithm(s) /version number. The OC ABI System will store all finger quality algorithm(s) /version number(s) in the 14.024 field of the original and Final transaction along with the generated score(s) and log these values for each finger image for report generation purposes. (2) The OC ABI System will store all vendor selected palm quality algorithm(s)/version number(s) in the 15.024 field of the original and Final transaction along with the generated score(s) and log in a data file these values for each palm image for report generation purposes. (3) The OC ABI System will store all vendor selected Photo quality algorithm(s)/version number(s) in the 10.024 field of the original and Final transaction along with the generated score(s) and log these values for each photo image for report generation purposes.
BisRule014	Work Queues, Screen Display The OC ABI System work queues and display screens, where multiple columns of information are displayed, <i>shall</i> be organized in such a way as to identify the information listed below in a single view, with the capability to filter by each item, at minimum: • Agency • Operator/User • Case ID • TCN • Date • TOT

Business Rule ID #	Business Rule
	• Crime Code • Status/Progress • LSID
BisRule015	Tables / Data Validation The OC ABI System <i>shall</i> maintain updated tables, checking with Cal-DOJ no less frequently than once every 24 hours. Table versions <i>shall</i> be easily accessible to and auditable by OCCL administrators. OCCL administrators <i>shall</i> be able to manually trigger retrievable of Cal-DOJ tables if the system failed to retrieve the most updated tables, such as during a network outage near/at the time of auto-update. All ingested or manually entered data into the OC ABI System <i>shall</i> be validated against the most up to date tables available. The OC ABI System will perform data validations and notify operator in real time and in the specific location of any deficiency and support corrective actions.
BisRule016	Performance Checks The OC ABI System <i>shall</i> allow OCCL to conduct periodic performance testing of the production system through the insertion of probe “test” record sets of known sources with known matches in the system, with the expectation that these performance tests validate the requirements in Section 5.3 Accuracy Requirements.
BisRule017	Proficiency Testing / Examiner Monitoring / Trainee Mode The OC ABI System <i>shall</i> include the ability for supervisors to introduce automated casework into the normal tenprint and latent workflows and flag/identify the cases for proficiency testing, examiner monitoring, or trainees. These cases <i>shall</i> be flagged, stored in the archive and be subject to reporting on the monitored activity, but <i>shall</i> not be stored in the matchers beyond the timeframe necessary for the case to be completed.
BisRule018	Test Environment The OC ABI System <i>shall</i> have a dedicated test environment with the same system design, configuration, hardware and software setup, archive, workflows, and supporting applications as the production system, without the need to switch between different workstations, and <i>shall</i> be kept updated and aligned with the production system. It <i>shall</i> include simulators for sending/receiving to/from Cal-DOJ and FBI.

4.2. OC ABI System Identification Services

As delineated in Table 4, the Identification Services include two workflows (WF01, WF02). Each workflow is defined, and its requirements stated in this section. Cal-ID Identification Services use newly collected fingerprint data from subjects to launch searches of prior enrollments to determine if the subject has been previously enrolled in the Cal-ID, CalDOJ, and FBI/National Systems or other cross-jurisdictional systems. The OC ABI system will generate and retain a verification package that contains the candidate list with images (or pointers to images) including all automated and/or manual determinations for subsequent administrative audit and monitoring purposes for a specified period of time.

4.2.1. Functional Requirements – WF01 – Tenprint Normal

This section outlines the functional requirements for the various inputs, processing, and outputs of tenprint identification services. This workflow is the core of the OC ABI System’s Identification Services as all criminal transactions and some others (e.g., deceased known and unknown) are processed here.

4.2.1.1. WF01 Inputs

The tenprint identification transaction data will be electronically transmitted as CA-Livescan Specification or FBI EBTS files. Inked forms will be converted to appropriate transaction types and are handled by requirements WF01InputReq001 through WF01InputReq004. These Workflow01 input paper-to-digital capture requirements will also be used to support Workflows 02 and 03.

Table 6 WF01: Identification TOTs Supported for Workflow 1

TOT	Transaction Name
AMN	Amnesia Victim
APP	Applicant
CRM	Criminal Tenprint Transaction
CUS	Custody
DCD	Deceased (Normal and “Flat Capture”) ⁵
IDN	Identification Only (Normal and “Flat Capture”) ⁵
MPR	Missing Person
REG	Violent Offender Registration (Sex, Arson, etc.)

The OC ABI System ingested transactions will be parsed for compliance with the CalDOJ Livescan Specifications or external FBI EBTS depending on the originating TOT, ORI, and Destination Agency Identifier (DAI)., Per BisRule007 those transactions that comply with the required fields will then be checked for image quality (including calculating and saving the individual rolled finger and palm quality scores per BisRule013) and sequence checks. The original quality scores will be saved in a data file from which reports can be generated at the ORI and biometric device ID levels.

Where transactions fail the image quality checks, any encountered problems will be conditionally forwarded to a fingerprint examiner for Quality Control (QC) or automatically returned to the submitting

⁵ Due to additional variables and challenges with capturing deceased fingerprints, flat impressions taken simultaneously using the right and left four fingers, followed by the two thumbs, without rolling are approved and accepted by Cal-DOJ and recognized and accepted by the Federal Bureau of Investigation.

agency with the corresponding NIST error response, with clear description understandably by the livescan operator. The QC operator will be able to select quality control error notices from a pull-down list and/or selectively return an automatically generated corresponding NIST error response, to include returning notices back to the LSID that submitted the transaction and/or to a designated drop printer in records unit at the agency. If the transactions are for applicants or other TOTs that indicate in their processing parameters as not being locally searched, they will go through all Input steps but then be sent directly to the CalDOJ AFIS, by-passing the OC ABI System processing.

For accepted transactions, the OC ABI System will evaluate the image quality of Type-10 facial images relative to the ANSI/NIST-ITL 1-2011 Update: 2015 Annex E Facial Capture – SAPs 30 and above. The evaluation ratings will be saved within the archived Final transactions and in a data file from which reports can be generated at the ORI and biometric device ID levels.

Qualified accepted, modified, and rejected transactions will be preserved indefinitely in ANSI/NIST Archive (repository) of transactions per BisRule007.

Workflow 01 input requirements WF01InputReq001 through 004 are for the scanning of paper forms (typically fingerprint or palmprint cards).

Table 7 WF01: Identification Services Input Requirements

Requirement ID #	Requirement
WF01InputReq001	For paper forms submitted, the OC ABI System shall support: The ability for the operator to select from a menu of sets of card or paper forms, where the default will be dynamically set to the last processed set of forms. The ability for the operator to select from a menu of TOTs where the default will be set to the last processed TOT. Scanning of the front and back sides (where information is found) of friction ridge forms at 300 ppi and creating the Type-20 record(s), compressed at 10:1 using JPEG 2000. Create an automated assignment of a unique TCN, which can be optionally overwritten by the Cal-ID operator. For flatbed scanners, display first side of any double-sided form to the operator and support active key entering while the other side or additional cards (e.g., a palmprint card) are being scanned. After scanning is complete, allow the operator to view the scanned card images and initiate a re-scan if appropriate.
WF01InputReq002	For paper forms submitted, the OC ABI System shall provide the user with: The capability of automatically scanning the image portions of the fingerprint, palmprint, or footprint forms at 1,000 ppi using FBI certified EBTS Appendix-F scanner systems and FBI compression guidelines

Requirement ID #	Requirement
	Automatically assigning the image(s) to Type-14, 15, and 19 records, as appropriate.
WF01InputReq003	For paper forms submitted, the OC ABI System shall provide the user with: The capability of entering Type-1 and Type-2 Field specific texts to an operator selected TOT and Destination Agency Identifier (DAI), per the corresponding CA/FBI EBTS. Linking the text Fields (Types 1 and 2) with the appropriate scanned images [WF01InputReq001 and WF01Input002]. The OC ABI System will perform data validations as the operator is entering data, such as date tests, etc. and notify operator in real time and in the specific location of any deficiency and support corrective actions. The OC ABI System will perform completed package checks to confirm all the “required” fields and multiple field relationships have been properly populated. Double Key entry Verifications will be required based on the default processing parameters associated with the TOT selected. The fields requiring double key entry will be defined in the processing parameters for each TOT and DAI.
WF01InputReq004	For paper forms submitted, after scanning and text entry are complete the OC ABI System shall automatically create an ANSI/NIST transaction with the Record Types-1, 2, 14, 15 (when palms are present), and 20 and put them in the processing queue for ingesting into the appropriate Workflows 01, 02, or 03.
WF01InputReq005	The OC ABI System shall be able to: 1. Ingest EBTS transactions both electronically submitted transactions and transactions created in WF01InputReq004 2. Parse for compliance with the selected specification transaction definitions per the processing parameters for the submitted TOT, ORI and biometric device ID, then log the results per BisRule011 3. Check for adherence to annotations for missing images (e.g., AMP) 4. Check for duplicate TCN/BKN per BisRule006. 5. The OC ABI System will return the appropriate NIST error response with clear detailed error descriptions per CA/FBI guidelines for those that fail step 2 or 3 above. The results are to be returned, as appropriate, logged, and the transaction removed from this Workflow.
WF01InputReq006	The OC ABI System shall generate and store NFIQ scores for each finger (rolled and/or flats) and any other vendor utilized image quality assignment algorithm(s) and generate and store any Palm image quality assignment algorithm(s) and the generated score for each palm image – all per BisRule013.

Requirement ID #	Requirement
WF01InputReq007	The OC ABI System shall automatically assign pattern classification(s) to each finger image (whorl, right loop, left loop, arch and/or unknown).
WF01InputReq008	The OC ABI System shall perform quality checks using the ingested friction ridge images against quality threshold processing parameters per BisRule011.
WF01InputReq009	The OC ABI System shall conditionally forward the transactions that fail the automated quality checks [WF01InputReq008] to appropriate examiner work queues for examiner-assisted QC or conditionally reject the transaction per processing parameters based on the ingested TOT, ORI and biometric device ID. All rejected are to be removed from this Workflow after sending the appropriate ANSI/NIST response transaction.
WF01InputReq010	The OC ABI System shall permit examiners to select a transaction from the QC queue and present the first image from the selected transaction within 4 seconds and all images within 30 seconds. The transaction shall then immediately not be available in the work queues for other examiners to select.
WF01InputReq011	The OC ABI System shall provide support to examiners in performing QC activities: 1. Adjust sequence: ▪ From Plain to Rolled ▪ From Rolled to Rolled ▪ Whole hand swap 2. Correct or establish the pattern 3. Center images 4. Re-extract finger or palm from a larger image 5. Modify, add, remove annotations 6. Provide an ability to reject a transaction by: ▪ Supporting the operator with the ability to select a table of reasons from a detailed list or enter a reason via the keyboard, such as photos, palms, writers' edges. List to be defined by OCCL. ▪ Automatically generate the appropriate NIST error response back to the originator

Requirement ID #	Requirement
WF01InputReq012	The OC ABI System shall record in a system log all quality checks (automated and manual) results and make them available for review. The results to be logged include all Type-1 and Type-2 record Fields, as well as: 1. Automated QC ▪ Fingerprint quality score per NFIQ and the NFIQ algorithm version for each rolled and plain finger per BisRule013 ▪ Any additional vendor selected Quality algorithm and generated score for each rolled and plain finger per BisRule013 ▪ The vendor selected Quality algorithm and generated score for each palm image per BisRule013 ▪ Rolled sequence results against the plains ▪ Presence of spurious fingers and palms ▪ Presence of annotations when no images are present or any other reasons for annotations ▪ Automated pattern call(s) ▪ Rejected transaction(s) 2. Manual QC ▪ Pattern classifications after manual QC ▪ Manual sequence adjustments ▪ Manual image adjustments ▪ Annotations after manual QC ▪ Rejected transaction(s)
WF01InputReq013	The OC ABI System shall be able to respond to rejected transactions via an EBTS error transaction (corresponding response error TOT for the ingested TOT, ORI and biometric device ID)
WF01InputReq014	The OC ABI System shall create and store transactions per BisRule007 and BisRule013.
WF01InputReq015	The OC ABI System shall rate any Type-10 frontal facial images in the accepted Final transactions per the ANSI/NIST 1-2011 Update: 2015 Annex E SAP 30, 40, 50/51 in terms of pass or fail and record the results in a searchable data file. The “fail” determination will not cause a rejection of the transaction and an error describing the image error shall be added as a determination in the message field in the response to the originator. The photo(s) evaluation algorithm(s)/version(s) ratings score for each image are to be stored in Field 10.024 of the Final transaction.

Requirement ID #	Requirement
WF01InputReq016	The OC ABI System shall forward the acceptable transactions: - An applicant transaction (other than those with processing parameters indicating a local search) will go directly to the CalDOJ AFIS, bypassing the Cal-ID OC ABI System matching process per processing parameters - All others will go onto the OC ABI System for processing.

4.2.1.2. WF01 Processing

The OC ABI System will process identification transactions received from internal and external interfaces. Successful transactions (i.e., that pass the parser and image quality checks) will have the various biometric modality data (fingerprint and palmprints) sent to the appropriate matchers for a 1:n search.

When the 1:n matcher score is above a settable auto-match score [Threshold 1] the system can declare a “match”. A separate 1:n search Threshold [Threshold 2] below which all 1:n scores are indicative of a “no match” will also be settable.

Independent of any “lights out” decisions or need for manual verification, the system will always create and save a verification package for potential review and use in investigations that records all resulting auto and/or manual match/no-match results.

Based on a match/no-match decision, the OC ABI System will update the matchers and directories per BisRule003, update the demographic search index including all demographic fields from all record types found in the Final transaction (record Types-1, 2, and 10) and make the results available to the originator. Based on the transaction data, the transaction may or may not be forwarded to CalDOJ, other cross-jurisdictional systems, the FBI and other national systems or via the FBI to international systems for further searching. In the case of new enrollees, the OCN will be established by the OC ABI System per BisRule008.

Table 8 Tenprint Identification Services Processing Requirements

Requirement ID #	Requirement
WF01ProcReq001	The OC ABI System shall feature extract all friction ridge images, regardless of any annotations associated to that image
WF01ProcReq002	The OC ABI System shall: - Create appropriate internal TP-TP searches per BisRule011. - Automatically cascade TP-LT and KP-PLT internal reverse latent searches based on BisRule011 after an existing or new OCN has been assigned to the search record.
WF01ProcReq003	The OC ABI System shall automatically execute all searches created in WF01ProcReq002.
WF01ProcReq004	Reserved
WF01ProcReq005	Reserved

Requirement ID #	Requirement
WF01ProcReq006	Reserved
WF01ProcReq007	Reserved
WF01ProcReq008	Reserved
WF01ProcReq009	The OC ABI System shall create a verification package containing 1:n candidates' results and move it to a work queue for all transactions independent of Auto No-Match, No-Match, or Indeterminate(s) per BisRule004. Only those transactions that require manual verifications will be queued for operator intervention per processing parameters.
WF01ProcReq010	Reserved
WF01ProcReq011	If the TP-TP matcher score for a 1:n candidate is above a settable Threshold [Threshold 1], the OC ABI System shall automatically declare a match for that candidate OCN.
WF01ProcReq012	If the matcher scores for all 1:n candidates are below a settable Threshold [Threshold 2] the OC ABI System shall automatically declare a no-match result for the transaction.
WF01ProcReq013	If there is more than one automatic match for disparate OCNs then the OC ABI System shall separately mark the transactions indicator in the appropriate examiner work queues for conditional examiner-assisted verification.
WF01ProcReq014	If there are any 1:n candidates with scores between Thresholds 1 and 2 ,the OC ABI System shall mark a transactions indicator in the appropriate examiner work queues for conditional examiner-assisted verification.
WF01ProcReq015	The OC ABI System shall allow examiners to selectively pick a transaction from the Verification queue per BisRule004 and present the first images from the selected transaction within 4 seconds of the selection and all images within 30 seconds, for both search prints and candidates. The transaction shall then immediately not be available in the work queues for other examiners to select.
WF01ProcReq016	The OC ABI System shall provide support for examiners to verify candidates for searches selected from the queue and to selectively image process the original image and the candidate image separately or in synchrony (i.e., zoom, magnify, and rotate; and adjust contrast, brightness, and sharpness) as well as allow the examiner to select and view the candidate per BisRule004.
WF01ProcReq017	The OC ABI System shall permit examiners to print any search or candidate fingerprint/palmpoint set with Type-1 and Type-2 data per BisRule001 and BisRule009.
WF01ProcReq018	The OC ABI System shall permit an examiner to change any automated determinations to a manual decision (i.e. Auto-Match to Manual No-match, Auto

Requirement ID #	Requirement
	No-Match to a Manual Match) when the verification candidate list has been presented to the examiner for verification purposes.
WF01ProcReq019	The OC ABI System shall permit examiners to determine when more than one match determination will result in a consolidation process. The examiner can select the “target” OCN that one or more OCN and folder contents will be automatically merged with.
WF01ProcReq020	The OC ABI System shall permit examiners to reverse a previously performed consolidation process. The examiner can selectively restore the information to the original OCN folders.
WF01ProcReq021	In the case of a completely automatic and/or manual No-Match decision, and the processing parameters indicate a new OCN should be established, the OC ABI System shall establish a new OCN per BisRule008.
WF01ProcReq022	The OC ABI System shall conditionally forward the relevant record Types (e.g., Type 1 & 2 only, all record Types) in the transactions automatically onto Sheriff’s Systems, CalDOJ, the FBI and/or other cross-jurisdictional systems per BisRule005 and BisRule011: 1. The Sheriff’s Systems will be sent the completed package including the resulting OCN placed in the OCN field for selective criminal related transactions, per processing parameters 2. The transactions are forwarded onto CalDOJ with the resulting OCN. CalDOJ will then conditionally forward them onto the FBI or other cross-jurisdictional systems.
WF01ProcReq023	The OC ABI System shall ingest all ANSI/NIST formatted response transactions from CalDOJ, FBI, DHS, and any other authorized systems where an OC search was forwarded. Note: Cal-DOJ ACK messages and SCNs may be unreliable at times
WF01ProcReq024	The OC ABI System shall store an original copy of all transactions forwarded in the ANSI/NIST Archive per BisRule007.
WF01ProcReq025	The OC ABI System shall update the MCI for each subject enrolled to include links to all successfully processed transactions, prepared, and received responses, consolidated OCNs, and all OC ABI System matcher identity tables per BisRule002 and BisRule008.
WF01ProcReq026	The OC ABI System shall update the matchers with the Final transactions per BisRule003 and BisRule011.
WF01ProcReq027	The OC ABI System shall automatically log all search transactions results to include the original Type-1 and Type-2 fields, time received, time at end of processing, and identity decision. Logging shall be accessible to Administrators.

Requirement ID #	Requirement
WF01ProcReq028	The OC ABI System shall update the Archive searchable indices using defined text data fields contained in the transaction for forensic/administrative demographic searches per BisRule007 and BisRule011.
WF01ProcReq029	The OC ABI System shall log and notify of an error condition with explanation(s) when external system(s) returns error responses, rejects the transaction or does not return expected response(s) within a specified period per BisRule011.
WF01ProcReq030	The OC ABI System shall allow examiners to select and hold or lock a transaction in the QC and Verification queues, without working the transaction, so that another examiner cannot select the transaction.

4.2.1.3. WF01 Outputs

The OC ABI System will prepare and send ANSI/NIST compliant responses for all appropriate transactions received at the OC ABI Systems (i.e., from livescans, card scans, Mobile ID, etc.). If the transaction failed to pass the various checks above, then the OC ABI System will have produced an error message in the stages above. This section deals with requirements for transactions processed at the OC ABI System without errors and the OC ABI System processing of all responses received from CalDOJ, the FBI or other external systems – with or without errors.

Table 9 WF01: Cal-ID Identification Services Output Requirements

Requirement ID #	Requirement
WF01OutReq001	The OC ABI System shall automatically generate and return the appropriate response for the ingested TOTs per the processing parameters back to the originating biometric device and agency address as specified in the OC ORI table. The responses will include the originating TCN in the transaction Control Reference (TCR) and the response TCN will contain the originating TCN followed by a unique incident number. Where the subject was successfully searched the responses will contain the results (for Match and No-match) and the resulting OCN.
WF01OutReq002	The OC ABI System shall automatically forward authorized external system responses to the originating agency biometric device per BisRule011 by adjusting the ORI and DAI of the transaction.
WF01OutReq003	Upon receipt of a successful search (i.e., non error) response from all systems searched, the OC ABI System shall automatically delete applicant transactions from temporary storage and queues while retaining the logs and the responses received per BisRule011.
WF01OutReq004	The OC ABI System shall automatically log all transactions and responses per BisRule007 and BisRule011.

4.2.2. Functional Requirements –WF02– Tenprint Maintenance

This section outlines the functional requirements for the various inputs, processing, and outputs of tenprint maintenance services. Tenprint maintenance covers a myriad of services, and the workflow is not a traditional one with a start point, decisions-based branches, and a well-defined end point. Rather, administrators and supervisors can enter the maintenance function to perform one or more of the following activities:

- Image updates (such as photos taken of an inmate upon release)
- Delete or seal records

4.2.2.1. WF02 Inputs

Delete or Seal Records: This tenprint maintenance transaction can be created dynamically by the tenprint supervisor using the OC ABI System’s internal commands. The transactions will be logged and auditable.

Note well: The baseline system requirements do not include any requirements for a formal facial image biometric search capability – beyond supporting photo and SMT retrieval requests based on OCN, or biographic and demographic attributes.

Note well: “Delete and Seal” transactions start from a control screen and do not have their own TOTs.

The transactions will be conditionally preserved indefinitely in ANSI/NIST Archive (repository) of transactions per BisRule007.

Table 10 WF02: Tenprint Maintenance Services Input Requirements

Requirement ID #	Requirement
WF02InputReq001	The OC ABI System shall allow operators to query records by, at minimum: Name, BKN, Date of Arrest, OCN
WF02InputReq002	The OC ABI System shall generate and store image quality scores for each image added to a previously enrolled transaction all per BisRule013.
WF02InputReq003	The OC ABI System shall flag for the operator any transaction that fails the image quality checks and allow the operator to make a decision to pass or fail the entry all others will continue through maintenance processing.
WF02InputReq004	The OC ABI System shall forward the acceptable transactions onto the OC ABI System Processing for automatic processing, to include export to other systems (such as sftp export to external face recognition system).

4.2.2.2. WF02 Processing

The OC ABI System will process maintenance transactions received from internal and external interfaces.

Delete or Seal Records: The OC ABI System will support the tenprint supervisor in selecting transactions to be deleted or sealed using a workstation command screen. The OC ABI System will perform the requested action and mark the records as sealed or deleted.

- In the case of sealed records, the record will remain in the Archive and will be removed from the matchers. The details of the record **shall** be hidden, clearly and noticeably flagged, and not accessible to any operator unless un-sealed by a supervisor or other operator authorized by user privileges. A

search for the record, while sealed, **shall** result in an onscreen notification that record is sealed and not accessible.

- In the case of deleted records, the records will be removed from the Archive and the matchers. The log will be updated to reflect the action taken, the reason for it, and the name of the person who took the action.
- It is understood that copies of sealed and deleted records will exist for a period in backup files. Over time, as routine full system backups are created these records will reflect the current system status of sealed or deleted.

Table 11 WF02: Tenprint Maintenance Services Processing Requirements

Requirement ID	Requirement
WF02ProcReq001	The OC ABI System shall provide the tenprint supervisor with a command screen that permits records to be selected by, at minimum, OCN, BKN, and TCN and seal them at the OCN, BKN or TCN level by: 1. Marking all copies in the Archive hidden to anyone through any search mechanism (e.g., BKN, TCN or OCN search) 2. Removing all feature sets associated with the sealed transaction from the matchers. 3. Conditionally forward a Biometric Delete (BDEL) transaction to CalDOJ if the transaction had previously been submitted there. 4. Allowing privileged operators to un-seal the record(s)
WF02ProcReq002	The OC ABI System shall provide the tenprint supervisor or designee with a command screen that permits records to be selected by BKN, OCN or TCN and delete them at the BKN, OCN or TCN level. by: 1. Deleting all copies in the Archive or any other files on the system. 2. Removing all feature sets associated with the deleted transaction from the matchers. Conditionally forward the BDEL transaction to CalDOJ if the transaction had previously been submitted there.
WF02ProcReq003	The OC ABI System shall update the MCI for each subject enrolled to include links to all successfully processed transaction TCNs, prepared and received responses, consolidated OCNs, and all ABI System matcher identity tables per BisRule002 and BisRule008.
WF02ProcReq004	The OC ABI System shall automatically log all maintenance transaction results to include the original Type-1 and Type-2 Fields, time received, time at end of processing per BisRule007 and BisRule011.

Requirement ID	Requirement
WF02ProcReq005	The OC ABI System shall permit the supervisor(s) to select and review all transactions marked for deletion that have not yet been deleted and selectively remove them from the delete queue.
WF02ProcReq006	The OC ABI System shall provide the tenprint supervisor or designee with a command screen that permits supplemental frontal, profile, and SMT images taken at release to be ingested and stored as ANSI/NIST compliant Type-10 records associated to original booking records by BKN or TCN. The supplemental images shall update the MCI and be accessible in review screens, as the original booking image.

4.2.2.3. WF02 Outputs

The maintenance requests produce output when they are quality checked upon ingesting and when problems are encountered during processing. There are no other outputs from the workflow.

Table 12 WF02: Tenprint Maintenance Services Output Requirements

Requirement ID	Requirement
WF02OutReq001	The OC ABI System shall automatically forward supplemental images to authorized external systems per processing parameters
WF02OutReq002	The OC ABI System shall automatically log all transactions
WF02OutReq003	Reserved

4.3. OC ABI System Tactical Services

4.3.1. Functional Requirements –WF03– Tactical Services

This section outlines the functional requirements for the various inputs, processing, and outputs of tactical services. Given the tactical nature of these electronic transactions and the criticality of receiving a rapid response, this workflow selectively bypasses manual verifications and relies on automated identification decisions.

For most of the tactical TOTs in this workflow, the OC ABI System will return one of the following, as appropriate:

- A match response when there is only one subject/OCN automatically matched and conditionally the subject's most recent facial images
- A response with a settable number of candidates and, if available, each of the candidates' most recent facial image(s)
- A no match response
- A clearly described error response (ERRT)

For the DNS TOTs, the workflow will follow the CalDOJ Guidelines:

- The OC ABI System will perform a pre-DNS (PDNS) “lights-out early search” for each criminal, custody, and/or registrant livescan transaction using plain finger images captured during the livescan booking process which is to be submitted by the livescan before the subject’s enrollment has been completed. The purpose of this “lights-out early search” is to determine if the subject already has an OCN assigned and to determine if the subject also has a State Identification number (SID or CII) in the local ABI System that supports the Proposition 69, the “DNA Fingerprint Unsolved Crime and Innocence Protection Act” interface with CalDOJ.
- When the OC ABI System automatically determines there is a no match or more than one OCN is a strong candidate, the OC ABI System will return a no match response back to the livescan/booking facility (local DNR). The booking facility is to continue the booking process and manually process the subjects DNA capture per CalDOJ guidelines.
- When the OC ABI System automatically determines that there is a single OCN match, and if the OCN’s MCI contained an SID/CII, the OC ABI System will forward a NIST SID Query transaction onto CalDOJ. The CalDOJ HTML DOJ SID Query Response will be returned to OC ABI System and forwarded onto to the livescan / booking facility in a NIST file format (local DNR). The CalDOJ response determines if the DNA is to be collected for this subject.
- If DNA is collected from the subject and barcode data has been entered into the CRM, CUS, or REG transaction from the livescan, a DNS transaction will be submitted by the ABI System concurrently with the CRM, CUS or REG transaction to Cal-DOJ.
- The OC ABI System sends the NIST formatted DNS transaction to CalDOJ with Type 14 images, ITT of SAB, and URL to the DOJ TRG.
- In this circumstance, the OC ABI System *shall* allow the PDNS, enrollment (CRM, CUS, REG), and DNS transactions to have the same TCN.

4.3.1.1. WF03 Inputs

The Tactical identification transaction data will be transmitted as electronic CA or FBI standard electronic biometric files into the OC ABI System for preprocessing. Inked forms will not be processed as a Tactical transaction. They will be handled in WF01.

Table 13 lists the initial TOTs associated with Workflow 02.

Table 13 WF03: Tactical Services TOTs Supported

TOT	Transaction Name
DNS	DNA Notification Search
PDNS	Pre-DNS (local TOT only)
RPIS	Rapid Fingerprint Identification Search
TFS	CalDOJ Mobile ID
TPIS	Tenprint Fingerprint Image Search

The OC ABI System will parse records for compliance with the corresponding CA or FBI electronic biometric transmission specifications and for duplicated TCNs. Transactions that fail the parsing test will be logged and returned to the submitting agency with an appropriate NIST response TOT.

These transactions will be processed as quick turnaround transactions. The default priority will be set by the OC ABI System processing parameters per TOT, ORI and biometric device ID per BisRule011. For example, an RPIS from an outside AFIS ORI such as Los Angeles County or another California county will generally be defaulted to the lowest priority of nine, but when an OC Mobile ID device is submitting an RPIS or a DNA pre-booking transaction, these will generally be set to the highest priority of one.

Those transactions that comply with the parsing criteria will be conditionally stored in the ANSI/NIST Archive and forwarded onto the match process.

Table 14 WF03: Tactical Services Input Requirements

Requirement ID #	Requirement
WF03InputReq001	The OC ABI System shall be able to: 1. Ingest standard Tactical transactions listed in Table 13 using BisRule011 2. Parse for compliance with the selected standard transaction definitions per the processing parameters for the submitted TOT, ORI and biometric device ID, then log the results and the processing parameters 3. Validate the transaction contents against applicable standard and table values The OC ABI System will return the appropriate NIST error response with detailed error descriptions per CA/FBI guidelines for those that fail step 2 or 3 above.
WF03InputReq002	The OC ABI System shall forward the acceptable transactions onto the OC ABI System for Processing.
WF03InputReq003	The OC ABI System shall generate and store in the transaction the NFIQ scores, if not already present, for each finger (rolled and/or flats) and any other vendor utilized Image Quality Assignment algorithm(s) per BisRule013.
WF03InputReq004	The OC ABI System shall selectively store all successfully ingested transactions in the ANSI/NIST Archive per BisRule007 and BisRule011.

4.3.1.2. WF03 Processing

The OC ABI System will process Tactical transactions received from internal and external interfaces. The fingerprint images will be feature extracted and searched without enrollment in the matchers and will be conditionally retained in the ANSI/NIST Archive per the processing parameters. Matcher result candidates will be made available to the originator via standard responses. The logs and ANSI/NIST Archive will be updated for each.

For Tactical TOTs other than DNS, when a 1:n matcher score is above a settable auto-match score [Threshold 3] the System can declare a “match”. A separate 1:n search Threshold [Threshold 4] below which all 1:n scores are indicative of a no match will also be settable. Independent of any “lights out” decisions, the system will always create and save a verification package for potential review and use in investigations.

Table 15 WF03: Tactical Services Processing Requirements

Requirement ID	Requirement
----------------	-------------

WF03ProcReq001	The OC ABI System shall feature extract fingerprint images.
WF03ProcReq002	The OC ABI System shall create appropriate internal TP-TP searches for the matchers per BisRule011.
WF03ProcReq003	The OC ABI System shall automatically execute all searches created in [WF03ProcReq002].
WF03ProcReq004	The OC ABI System shall create a verification package and move it to a verification queue per BisRule004.
WF03ProcReq005	The OC ABI System shall provide support for examiners to review candidates for searches selected from the queue for up to an adjustable period of time after the results have been returned to the submitter. For audit and problem resolution, the OC ABI System shall allow examiners to selectively pick a transaction from the completed Verification queue and then present the first images from the selected transaction within 4 seconds and all images within 30 seconds of the selection, for both the search prints and the candidates, per BisRule004.
WF03ProcReq006	The OC ABI System shall conditionally forward the transactions onto CalDOJ, the FBI or other cross-jurisdictional systems per the processing parameters for the ingested TOT, ORI and biometric device ID and match results per BisRule005 and BisRule011, as well as the following: • When the TOT is PDNS and there is confirmed match on OCN that also contains a CII the OC ABI System will forward the SID Query onto CalDOJ. • When the transactions are conditionally forwarded onto CalDOJ, CalDOJ will conditionally forward them onto the FBI or other cross-jurisdictional systems.
WF03ProcReq007	The OC ABI System shall store an original copy of transactions forwarded in the ANSI/NIST Archive per BisRule007 and BisRule011.
WF03ProcReq008	The OC ABI System shall ingest all NIST response transactions from CalDOJ, FBI, DHS, and any other authorized systems where an OC tactical search was forwarded.
WF03ProcReq009	The OC ABI System shall automatically log all search transactions results to include the original Type-1 and Type-2 Fields, time received, time at end of processing, and the response message.
WF03ProcReq010	The OC ABI System shall log an error condition with explanation(s) when external system(s) returns any error responses, rejects the transaction, or does not return expected response(s) within a specified period per BisRule011.

4.3.1.3. WF03 Outputs

The OC ABI System will prepare and send NIST compliant responses for all appropriate transactions received at the OC ABI System. If the transaction failed to pass the various checks above, then the OC ABI System will have produced an error message in the stages above. This section deals with requirements for

transactions processed at the OC ABI System with and without errors and the OC ABI System processing of all responses received from CalDOJ, the FBI or other external Systems.

Table 16 WF03: Tactical Services Output Requirements

Requirement ID	Requirement
WF03OutReq001	The OC ABI System <i>shall</i> automatically generate and return the appropriate response for the ingested TOTs per BisRule011 back to the originating biometric device per agency address as specified in the OC ORI table, and conditionally forward them on to CalDOJ and/or the FBI per BisRule005: 1. For all TOT's other than DNS, a. For successfully searched transactions, responses are to include the top five candidates above Threshold 3 with one facial image for each candidate, if available. b. If there are no candidates above Threshold 3 then return a no-candidate response and notification in the message field if the transaction is being forwarded onto CalDOJ and/or the FBI, if appropriate. 2. For Pre-DNS TOT a. For successfully searched transactions with a single OCN candidate result above Threshold 1, a match response is to be returned with the CII from the MCI, if available, and a notification in the message field that the transaction is or is not being forwarded to CalDOJ and/or the FBI. b. For successfully searched transactions with more than one candidate result above Threshold 2, then return a no-candidate response and notification in the message field that the transaction is not being forwarded onto CalDOJ and/or the FBI. c. If there are no candidates above Threshold 2 then return a no-candidate response and notification in the message field that the transaction is not being forwarded onto CalDOJ and/or the FBI. d. The CalDOJ HTML DOJ SID Query Response will be returned to OC ABI System and forwarded onto to the livescan / booking facility in a NIST file format (local DNR). The CalDOJ response determines if the DNA is to be collected for this subject.
WF03OutReq002	The OC ABI System <i>shall</i> automatically forward authorized external system responses (candidates or errors) onto the originating agency per processing parameters by adjusting the DAI of the transaction and logging them per BisRule007 and BisRule011.

4.4. OC ABI System NIST Image Services

Cal-ID NIST Image Services supports authorized internal and external requests for tenprint and/or latent records and images from the OC ABI System ANSI/NIST Archive. This includes another sub workflow that:

- 1) Manages OC agencies' requests for ANSI/NIST records and images (friction ridge images and photos) from other AFIS such as CalDOJ, FBI.
- 2) Accepts the external system responses and forwards those responses back to the originator

4.4.1. Functional Requirements –WF04– NIST Image Retrieval

This section outlines the functional requirements for the various inputs, processing, and outputs of NIST image retrieval services.

4.4.1.1. WF04 Inputs

This workflow permits authorized OC ABI System examiners and other authorized external systems to retrieve NIST conformant image sets and archived NIST responses (e.g., in support of audit trail investigations) from the OC ABI System as well as from the CalDOJ AFIS system and the FBI.

For a known subject record/image request from the OC ABI System, the originator will send the OCN, TCN/BKN (booking number), CII and/or FBI number associated with the subject and/or for a specific event. For latent record/image requests from the OC ABI System the submitter will send the Latent Case Number and lift number, and/or TCN associated with the latent and/or for a specific event.

Additionally, this workflow also permits authorized OC examiners to forward Image Retrieval requests to other AFIS using the local agency ID, LCMS, CII and/or FBI number associated with the record from the other AFIS. The transaction can be launched for the following reasons:

1. To determine whether a better fingerprint image can be obtained for use in 4.2.2 Functional Requirements –WF02– Tenprint Maintenance
2. To launch a search with the returned image using 4.2.1 Functional Requirements – WF01 – Tenprint Normal
3. To determine whether a fingerprint, palmprint or latent image is available to use in a latent case analysis using 4.5.2 Functional Requirements –WF06– Forward Latent Services
4. To determine whether a mug shot is available for use in a digital lineup (please note creating the digital lineups is a process entirely outside of the OC ABI System scope)

Table 17 WF04: Image Retrieval TOTs Supported

Type of Transaction	Transaction Name
CPR	Photo Request Note Well: biometric photo matching is not implemented in the baseline OC ABI System.
IRQ	NIST Image Request

Image retrieval and audit trail transactions are submitted by tenprint examiners, latent examiners, and system administrators. All image retrieval and audit trail transactions will be parsed for compliance with

the corresponding CA/FBI EBTS. Transactions that fail the parsing test will be logged and returned to the submitted agency with the appropriate error response. Successful transactions (i.e., those that pass the parser checks) will be stored in the ANSI/NIST Archive.

Table 18 WF04: NIST Image Retrieval Services Input

Requirement ID #	Requirement
WF04InputReq001	The OC ABI System shall provide the ability to create transactions as listed in Table 17 using pull-down menus or manually entering the Type-1 & 2 Fields.
WF04InputReq002	The OC ABI System shall be able to: 1. Ingest EBTS transactions as listed in WF04InputReq001 or directly from internal and external cross-jurisdictional systems 2. Parse for compliance with the selected EBTS transaction definitions for the submitted TOT, ORI and biometric device ID per processing parameters 3. The OC ABI System will return the appropriate NIST response with detailed error descriptions per CA/FBI guidelines for those that fail step 2 above
WF04InputReq003	The OC ABI System shall record in a log the results of each EBTS transaction ingested, including processing parameters.
WF04InputReq004	The OC ABI System shall record a copy of each ingested transaction in the ANSI/NIST Archive in the fully EBTS compliant form in which it was received pursuant to BisRule007.
WF04InputReq005	The OC ABI System shall forward the acceptable transactions onto the OC ABI System Processing.

4.4.1.2. WF04 Processing

The OC ABI System will process image retrieval transactions received from the internal and cross-jurisdictional systems when authorized. The transaction will be processed locally and then conditionally forwarded to CalDOJ, the FBI, or other systems as appropriate.

Table 19 WF04: NIST Image Retrieval Services Processing Requirements

Requirement ID #	Requirement
WF04ProcReq001	The OC ABI System shall process the EBTS transactions from WF04InputReq005 and determine whether the requested image information is available on the OC ABI System.
WF04ProcReq002	If the image is not available, the OC ABI System shall conditionally forward image retrieval request transactions onto CalDOJ, the FBI's NGI system or other repositories.

Requirement ID #	Requirement
WF04ProcReq003	The OC ABI System shall be able to ingest the corresponding responses from CALDOJ, the FBI and other cross-jurisdictional systems.
WF04ProcReq004	The OC ABI System shall use the response information from the OC ABI System and other systems interfaced to update the transaction log.

4.4.1.3. WF04 Output

The OC ABI System will prepare responses to all transactions received.

Table 20 WF04: NIST Image Retrieval Services Output Requirements

Requirement ID #	Requirement
WF04OutReq001	The OC ABI System shall automatically generate and return the appropriate response for the ingested TOTs, per the processing parameters, back to the originating agency address as specified in the OC ORI table. The responses will contain the originating TCN in the TCR and the Response TCN will contain the originating TCN followed by a unique incident number. Whether the subject was successfully found or not the responses will contain the results and be displayed to the examiner.
WF04OutReq002	The OC ABI System shall automatically forward authorized external system responses onto the originating agency per processing parameters by adjusting the ORI and DAI of the transaction.
WF04OutReq003	The OC ABI System shall automatically log and display the summary of all transactions and responses per BisRule007 and BisRule011.

4.5. OC ABI System Forensic Services

As delineated in Table 4 the Forensic Services includes two workflows and the Latent Case Management System functionality (LCMS). Each workflow is defined and the requirements are stated in this section:

- WF05 Reverse Latent Search Responses
- WF06 Forward Latent Services
- LCMS Latent Case Management System

4.5.1. Functional Requirements –WF05–Reverse Latent Search Responses

This section outlines the functional requirements for the various inputs, processing, and unsolicited outputs of Reverse Latent Searches. Identification transactions containing fingerprint or palmprint records are conditionally reverse-searched against the OC unsolved latent files – known as a cascaded search. This conditionally happens for all Tenprint Identification and Tenprint Maintenance transactions from any source.

4.5.1.1. WF05 Inputs

The Reverse Latent Search results will be electronically transmitted as CA Livescan Specifications or FBI EBTS files. The input TOTs associated with Workflow 05 are listed below. They can originate at the OC

ABI System, CalDOJ, or the FBI's NGI system. If they start at OC, they are sent to the appropriate Originator system address. If they originate at the CalDOJ or the FBI, they are forwarded onto the Originator system address where the latent was enrolled in the unsolved latent file.

TOT	Transaction Name
ULM	Unsolved Latent Match Response

Table 21 WF05: Reverse Latent Search Input TOTs Supported

Table 22 WF05: Reverse Latent Services Input Requirements

Requirement ID	Requirement
WF05InputReq001	The OC ABI System shall be able to ingest EBTS transactions as listed in Table 21 as responses from searches made in response to WF01ProcReq002 and WF03ProcReq002.
WF05InputReq002	The OC ABI System shall be able to ingest EBTS transactions as listed in Table 21 as responses from CalDOJ or the FBI/NGI from OC latent's registered in those system(s).
WF05InputReq003	The OC ABI System shall record in a log the results of each transaction ingested.

4.5.1.2. WF05 Processing

When an unsolved latent match response is received from the OC ABI System, CalDOJ or the FBI, the transaction is logged, added to the ANSI/NIST Archive, and forwarded to the appropriate originating examiner system address via the LCMS. It is anticipated that only one candidate will be returned per ULM transaction.

Table 23 WF05: Reverse Latent Services Processing Requirements

Requirement ID	Requirement
WF05ProcReq001	The OC ABI System shall record a copy of each ingested transaction in the ANSI/NIST Archive in the fully EBTS compliant form in which it was received.
WF05ProcReq002	The OC ABI System shall create an LCMS entry in the appropriate verification work queue for each transaction listed in Table 21 that is received.
WF05ProcReq003	The OC ABI System shall support examiners in selectively picking a transaction from the Verification queue.
WF05ProcReq004	The OC ABI System shall support the examiners in the verification of candidates for searches selected from the queue by providing the associated friction ridge images of the verification transaction selection (reverse search print and original

Requirement ID	Requirement
	latent image) within 4 seconds for central site workstations and within 35 seconds for remote workstations.
WF05ProcReq005	The OC ABI System shall support the examiners in the verification of candidates for searches selected from the queue and to selectively image process the original image and the candidate image separately or in synchrony (i.e., zoom, magnify, rotate, contrast adjust, brightness adjust, reverse black and white, apply gamma correction, mirror (horizontal or vertical), sharpen/un-sharpen, mark points of similarity, apply false color encoding based on image density, and generate histograms).
WF05ProcReq006	The OC ABI System shall permit the examiners to print (1) any candidate latent image with case number and image number as well as time and date printed and(2) the search fingerprint/palmprint set with Type-1 and Type-2 data pursuant to BisRule009.
WF05ProcReq007	The OC ABI System shall support the forensic examiner selectively declaring a match, returning the transaction to the work queue, or queuing the transaction for another OC examiner for consultation.
WF05ProcReq008	The OC ABI System shall automatically log all reverse friction ridge search transactions and the steps taken, the examiners involved, and the search results in the LCMS.
WF05ProcReq009	The OC ABI System shall selectively support the preparation of court presentations when a match is found in any reverse latent search.
WF05ProcReq010	The OC ABI System shall automatically log all reverse latent search transactions and the examiners' results in the system log and LCMS.
WF05ProcReq011	The OC ABI System shall support the forensic examiner in selectively marking the match results to be sent back to the originating agency.
WF05ProcReq012	The OC ABI System shall create a Work Queue that displays for operator review the resulting responses from CalDOJ, FBI, DHS and any other interfaced AFIS.

4.5.1.3. WF05 Outputs

The OC ABI System will permit the examiner to document the results of the examination of the ULM and associated friction ridge material.

Table 24 WF05: Reverse Latent Searches Services Output Requirements

Requirement ID	Requirement
WF05OutReq001	The OC ABI System shall automatically prepare a LCMS report for all reverse latent searches.
WF05OutReq002	The OC ABI System shall support the examiner in selecting to (1) mark the case as closed, (2) mark the latent image as matched, or (3) simply save and exit the LCMS file.
WF05OutReq003	The OC ABI System shall maintain a searchable log of all reverse latent searches submitted to the OC ABI System by external systems from the OC ABI System
WF05OutReq004	The OC ABI System shall automatically generate and return a BDEC per the processing parameters and examiners direction back to the originating agency address as specified in the OC ORI table. The responses will contain the originating TCN in the TCR and the Response TCN will contain the originating TCN followed by a unique incident number. Where the subject was reviewed by an examiner the responses will contain the results.
WF05OutReq005	The OC ABI System shall be able to ingest external system BDECR and ERRA TOT responses.
WF05OutReq006	The OC ABI System shall automatically log all transactions and responses per BisRule007 and BisRule011.

4.5.2. Functional Requirements –WF06– Forward Latent Services

Forward latent searches use latent fingerprint and palmprint samples collected at crime scenes and disaster victim fingerprints, as well as fingerprints from deceased subjects collected by morgues or from the ANSI/NIST Archive, to determine whether the subject has been previously encountered and enrolled in the OC ABI System. External systems, both Universal Latent Workstations (ULW) and cross-jurisdictional agencies having an agreement with OCCL Cal-ID, can also submit forward latent searches.

4.5.2.1. WF06 Inputs

Table 25 lists the input TOTs for Workflow 06

Table 25 WF06: Forward Latent Search TOTs Supported

TOT	Transaction Name
LFFS	Latent Fingerprint Features Search
LFIS	Latent Fingerprint Image Search

Collection will typically start with:

1. A crime scene technician or investigator collecting images or other friction ridge samples at a crime scene

2. A forensic specialist examining an item of evidence (e.g., a handgun) and imaging a latent fingerprint or palmpoint
3. A Coroner investigator or forensic technician collecting friction ridge samples from a deceased person
4. A disaster response team providing disaster victim identification services where fingerprints are typically harvested from whatever portions of a hand that can be found and used – this is different from an Identification Service search of good quality tenprints collected at the morgue postmortem using the Deceased (DCD) TOT for a TP-TP Identification search.

For each case, along with an image, other case-related information will be supplied, such as date collected, unique identification number of the image or sample, the point of contact where results should be reported, collection location, crime type or morgue case type, etc. The original latent sample could be scanned directly into the ABI System, imported from an electronic file or be entered into an OCCL controlled library (currently part of the LIMS system) where the images (to include scanned lifts) and information will be entered through an OC ABI System workstation or transmitted from the LIMS to the LCMS, via ANSI/NIST compliant packages.

The LCMS will provide tracking of the processing of the latent through all searches to include maintaining a log of searches, image processing, candidates, etc. The LCMS will provide the ability for examiners to query status and other attributes of latent transactions and cases as well as to return to open cases as often and whenever they see fit. Transactions entered through an integrated Universal Latent Workstations (ULW) and external systems will be entered through the LCMS for tracking and reporting purposes.

Through an OC ABI System search, the OC ABI System will be able to support the determination of whether the subject who left latent friction ridge detail is a “known” person (i.e., a subject that has an ABI System Identity assigned to it at OC, CalDOJ or other external system).

Table 26 WF06: Forward Latent Services Input Requirements

Requirement ID #	Requirement
WF06InputReq001	The OC ABI System shall support the examiners in creation of a new case in the appropriate LCMS to include entering data in the case information fields [LCMSReq001] as well as the following image fields per image: 1. Latent collection location. 2. “Method of Processing” using a pull-down menu.
WF06InputReq002	The OC ABI System shall support the ingesting of digital images from LIMS, network servers, or portable digital storage devices such as flash memory with latent fingerprints or palmprints captured at various scales as Type-13 records, with an option to save a copy as a Type-20 record, into a specific case using a pull-down menu or other means to select from cases associated with the examiner’s agency.
WF06InputReq003	The OC ABI System shall support the scanning and saving of latent friction ridge material into a specific case using a pull-down menu or other means to select from cases associated with the examiner’s agency as follows:

Requirement ID #	Requirement
	• as a Type-20 (optionally) record • at 1:1 scale • at recommended 1200ppi (minimum 1000ppi) • in 16-bit gray scale or 24-bit color • using a capture box that can be adjusted up to 3 inches by 3 inches to select and save region(s) of interest into Type-13 record(s)
WF06InputReq004	The OC ABI System shall support the ingesting of crime scene and object reference images captured by digital cameras for use in the LCMS into a specific case using a pull-down menu or other means to select from cases associated with the examiner's agency and save them as Type-21 and Type-20 record(s) respectively.
WF06InputReq005	The OC ABI System shall support the ingesting of latent case textual information linked to a latent image as Type-1 and 2 fields from a NIST file or the keyboard into a specific case using a pull-down menu or other means to select from cases associated with the examiner's agency.
WF06InputReq006	The OC ABI System shall support the scanning of inked fingerprints into Type-13 images at recommended 1200ppi (minimum 1000ppi), 16-bit grayscale or 24-bit color for searches using the latent matcher algorithms.
WF06InputReq007	Reserved
WF06InputReq008	If ULW is used, the OC ABI System shall ingest LFFS and LFIS submitted from ULW software executing on a latent workstation, or by cross-jurisdictional submitters and after logging them into the LCMS, setting them for auto run.
WF06InputReq009	The OC ABI System shall update the LCMS and ABI System logs with the results of each step in the forensic services input process.

4.5.2.2. WF06 Processing

The OC ABI System will forward the latent transactions with the impression and tracking information to the LCMS for forensic processing as an LFFS transaction type. The OC ABI System/LCMS will queue the latent transaction for a latent examiner to select and process.

The examiner will perform pre-search steps (rotate, crop, mark and edit minutiae, etc.) before submitting a search. This will be performed using latent editing software integrated into the OC ABI System software, to include Photoshop - for details see Form and Fit Requirements in Section 5.

The examiner will be able to limit the search by crime type, finger or palm position, geographical region where the crime was committed, and other traditional parameters or elect to use no search limitations. The OC ABI System will search the record against known records as well as against unsolved latent records.

If the transaction originated from a ULW or cross-jurisdictional partner, it will be auto-launched without any examiner action – as a lights-out remote search. Since the OC ABI System will not know whether the remote submitter made an identification, these transactions will not be automatically forwarded to the FBI

– but rather the agency will have to resubmit them for forwarding. Cross-jurisdictional partners will not use the OC ABI System to forward searches to the FBI or other systems, as they have their own hierarchal paths to that service.

The known record files for latent searches to run against, sometimes referred to as the “latent cognizant files,” will contain all instances of known fingerprints and palmprints.

In cases where latent to latent searches lead to possible association(s), the examiner will be able to mark the candidate(s) as being of “investigatory value”, meaning that no definitive forensic conclusion(s) will be made; however, the marked candidate(s) may provide investigative leads for law enforcement investigative units.

Table 27 WF06: Forward Latent Services Processing Requirements

Requirement ID #	Requirement
WF06ProcReq001	The OC ABI System shall automatically queue the latent transaction within the LCMS.
WF06ProcReq002	The OC ABI System shall permit a forensic examiner to select a transaction for preprocessing from the work queue or from unsolved Latent files (LT or PLT).
WF06ProcReq003	The OC ABI System shall support the preprocessing of Type-13 latent images to include integrated Photoshop software image processing (such as, calculate and adjust scale and resolution using any ruler in the image or a ruler-type tool in the software, zoom, magnify, rotate, contrast adjust, brightness adjust, reverse black and white, apply gamma correction, apply a Fast Fourier Transform (FFT), mirror (horizontal or vertical), sharpen/unsharpen, mark features, apply false color encoding based on image density, generate histograms, and select a region of interest) and save the results to LCMS.
WF06ProcReq004	The OC ABI System shall selectively export from the LCMS the Type-13 for preprocessing on another system.
WF06ProcReq005	The OC ABI System shall import to the LCMS Type-13 images that were preprocessed on other systems (e.g., ULW workstations).
WF06ProcReq006	The OC ABI System shall support examiners in selectively saving and exiting the latent file or submitting it for extraction.
WF06ProcReq007	The OC ABI System shall support the auto-extraction of features from LCMS transactions and save the results to the LCMS.
WF06ProcReq008	The OC ABI System shall support the manual review and editing of features [WF06ProcReq007] by an examiner and save the results to the LCMS.
WF06ProcReq009	The OC ABI System shall support the creation/editing of search parameters such as selective geographic location (state, multiple states, or county), crime type(s), a specific subject (e.g., a suspect in the case), pattern type, hand, or finger position, to include candidate list length (up to 250 candidates) using pull-down menus.

Requirement ID #	Requirement
WF06ProcReq010	The OC ABI System shall support the transaction of forward latent searches selectively against any combination of known fingerprints, palmprints, and unsolved latents on the OC ABI System where the known fingerprints include all enrolled exemplars – both rolled and plain impressions.
WF06ProcReq011	The OC ABI System shall automatically search the submitted forward latent searches from [WF06ProcReq010].
WF06ProcReq012	The OC ABI System shall automatically search the submitted forward latent searches from [WF06ProcReq010] against the appropriate unsolved latent repository (LT-LT/PLT-PLT) per BisRule011.
WF06ProcReq013	The OC ABI System shall build candidate lists of possible matches to forward searches and queue them for forensic examiners to select for verification; candidate Type-2 information will include sex, DOB, and complete pattern type list in conformance to BisRule001.
WF06ProcReq014	If the latent case was a remote, lights-out search, the OC ABI System shall automatically forward the candidate list to the submitting agency with the images of the top candidate(s) (a selectable number up to 10).
WF06ProcReq015	The OC ABI System shall support examiners in selectively picking a transaction from the Verification queue.
WF06ProcReq016	The OC ABI System shall support the examiners in the verification of candidates for searches selected from the queue by providing the associated friction ridge images, features (search print and first candidate), and a list of Type-2 and record processing history within 4 seconds of the selection for central site workstations and within 35 seconds for remote workstations.
WF06ProcReq017	The OC ABI System shall support the examiners in the verification of candidates for searches selected from the queue and allow them to selectively image process the original image and the candidate image separately or in synchrony (i.e., zoom, magnify, rotate, contrast adjust, brightness adjust, reverse black and white, apply gamma correction, apply FFT, mirror [horizontal or vertical], sharpen/un-sharpen, mark points of similarity, apply false color encoding based on image density, generate histograms, turn on and turn off all minutiae, and display matching minutiae).
WF06ProcReq018	The OC ABI System shall support the forensic examiner in selectively declaring a tentative match, declaring of investigatory value, returning the transaction to the queue, queuing the transaction to another examiner for confirmation or advice, or editing and resubmitting the search to include manually editing the feature set.
WF06ProcReq019	The OC ABI System shall support a second forensic examiner selectively selecting a confirmation-verification package independent from the initial examiners determination and using the tools [WF06ProcReq016 and WF06ProcReq017] declaring a match, non-match, or elimination match/non-match; or editing and

Requirement ID #	Requirement
	resubmitting the search to include manually editing the feature set. When the results from the first and second examiner do not match, the transaction will be automatically queued for a supervisor's review.
WF06ProcReq020	The OC ABI System <i>shall</i> automatically log all forward friction ridge search transactions and the steps taken, the examiners involved, and the search results in the LCMS.
WF06ProcReq021	The OC ABI System <i>shall</i> support the preparation of court presentations when a match is found in any forensic friction ridge search.
WF06ProcReq022	The OC ABI System <i>shall</i> automatically log all forward latent search transactions and the examiners' results in the system log and LCMS.
WF06ProcReq023	The OC ABI System <i>shall</i> permit the examiners to print (1) any search latent image (with or without minutiae marked, selectively) with case number and image number as well as time and date printed and (2) search latent and any associated candidate fingerprint/palmprint set with Type-1 and Type-2 data pursuant to BisRule009.
WF06ProcReq024	The OC ABI System <i>shall</i> support a supervisor forensic examiner selectively selecting a confirmation-verification package and using the tools [WF06ProcReq016 and WF06ProcReq017] declaring a match, non-match, or elimination match/non-match; or editing and resubmitting the search to include manually editing the feature set.
WF06ProcReq025	The OC ABI System <i>shall</i> support the examiner in selectively creating an LFFS package for any latent image(s) in a case, with the appropriate Type-1, Type-2, Type-9, Type-13 records, and store it in the OC ABI System as an LFFS that can be accessed through the LCMS.

4.5.2.3. WF06 Outputs

The OC ABI System will prepare responses to all forward latent transactions received. The examiners will be given the opportunity to forward unsolved latents to CalDOJ and/or the FBI, to add them to the OC unsolved latent file, to edit and resubmit them, or to save them for future work. If there is a match, then the identity of the subject is returned to the submitting agency. If there is no match and the latent sample is selectively added to the unsolved latent file, it will be reverse searched against all subsequent transactions that include fingerprint and palmprint data.

Match reports and status information can be selectively returned to other OCCL systems used by the crime scene technicians and laboratory management. This will permit laboratory managers to integrate the information into status reports, case files, and other databases.

Table 28 WF06: Forward Latent Services Output Requirements

Requirement ID #	Requirement
WF06OutReq001	The OC ABI System shall automatically prepare a LCMS report for all forensic searches that lead to an identification.
WF06OutReq002	The OC ABI System shall support the examiner in selecting to (1) add new unsolved latent to the OC unsolved latent file with a link to the appropriate LCMS record(s), (2) delete the record, or (3) simply save and close the LCMS file.
WF06OutReq003	The OC ABI System shall support the selective forwarding of LFFS transactions to CalDOJ or the FBI or to other systems (e.g., cross-jurisdictional partners) using the EFS or ULW to generate appropriate Type-9 record pursuant to BisRule012.
WF06OutReq004	Reserved
WF06OutReq005	The OC ABI System shall support the ingesting of any response to an LFFS transaction (SRL or ERRL TOTs) automatically forwarding it to the appropriate LCMS case pursuant to BisRule012.
WF06OutReq006	The OC ABI System shall maintain a searchable log of all forensic transactions submitted (along with the responses) to the OC ABI System and to external systems in the system log and LCMS.
WF06OutReq007	The OC ABI System shall support the selective forwarding of FBI and other external responses (SRL TOTs) to latent transactions to the appropriate Verification queue [WF06OutReq006].
WF06OutReq008	The OC ABI System shall support the selective forwarding of latent case status and results to other OCCL systems such as the Laboratory Information Management System (LIMS) in a NIST formatted transaction.

4.5.3. Functional Requirements –LCMS– Latent Case Management System

The LCMS will be used to ingest and launch searches as described and specified in:

- 4.5.1 Functional Requirements –WF05–Reverse Latent
- 4.5.2 Functional Requirements –WF06– Forward Latent Services

The LCMS will support the latent examiners and system administrators in maintaining the OC ABI System latent files and the LCMS records to include the maintenance of latent cases, images, and reports at the local, CalDOJ and CJIS/NGI levels. Maintenance of latent transactions submitted to the CalDOJ and the FBI will be via the TOTs in Table 29, and they will be generated by the LCMS.

The OCSD LCMS is a utility to store all search latents, whether enrolled in the OC ABI System unsolved database or not. An OCCL program maintains the original evidence. The OC ABI System LCMS system needs to maintain all searched latents by case number for recall or subsequent searching in the OC ABI System, the CalDOJ AFIS, the NGI system, or any cross-jurisdictional AFIS system.

The LCMS is also meant to be a module where examiners can use Photoshop to size, calibrate, facilitate printing and documentation, and provide enhancements independent of any COTS OC ABI System image

processing tools. That is not to say that COTS image processing tools should be unavailable to the OC ABI System LCMS user community.

The OC ABI System will process latent management transactions received from the internal systems. They can be of two types: (1) internal non-NIST maintenance transactions (e.g., add to ABI System unsolved latent file) and (2) external NIST transactions for forwarding to the CalDOJ, FBI or external systems (e.g., cross-jurisdictional partners). The original NIST transactions will be preserved indefinitely in the ANSI/NIST Archive (repository) of transactions.

Latent examiners and supervisors will use the LCMS to manage the latent case files via latent workstation functionality. Table 30 lists the LCMS requirements. There are no workflows in the sense that the user interface is restricted to specific sequences of actions. On the other hand, there are some transactions where the system will automatically ask whether a cascaded ANSI/NIST transaction should be generated and submitted to the FBI (e.g., deletion of an unsolved latent from ABI System which the LCMS knows was added to the unsolved files at CJIS).

The transactions listed in Table 29 are the TOTS that can be created by the LCMS system and forwarded onto CalDOJ or the FBI or other cross-jurisdictional AFIS.

Latent examiners will also be able to scan in major case prints, to include known exemplars of proximal, medial, distal, side and tip friction ridge, as Type-14 records with Field 14.014 descriptors, Type-15 records for palms, and Type-19 records for footprints and use them in forward latent searches. This will permit the OCCL to capture major case prints from victims, first responders, as well as witnesses for elimination purposes. When a suspect has been identified major case prints can also be captured for investigative purposes. These prints will be stored in the LCMS and dynamically loaded into matchers for specific searches rather than being an active, searchable file. These records are to be considered neither applicant nor criminal files.

Table 29 LCMS: Latent Case Management Maintenance TOTs Supported

TOT	Transaction Name
ULD	Unsolved Latent Delete Request

Table 30 LCMS: LCMS Services Processing Requirements

Requirement ID #	Requirement
LCMSReq001	The OC ABI System shall support latent examiners and system administrators in the creation of latent cases, independent of actually loading any images, to include entering and saving information in the following data Fields: 1. Case name 2. Case number 3. Owning agency 4. Date of crime 5. Date case opened in LCMS

Requirement ID #	Requirement
	6. Primary Examiner the case is assigned to 7. Crime Lab reference number/lift number 8. 4-digit NCIC Uniform Offense Code 9. State Crime Code(s) – a pull-down menu of the state statutory code (based on complete table strings beginning with a 5-digit CJIS code) from the Cal-DOJ offense tables. 10. Local Crime Code(s) – a pull-down menu based on the 4-digit Uniform Crime code entered 11. Auto delete flag at statute of limitations ⁶ date (Y/N) 12. Up to 10 additional free form Fields, to be defined by OCCL during system design
LCMSReq002	The OC ABI System shall support latent examiners and system administrators in populating and updating a “method of collection” table used in an LCMS pull-down menu of types of collection/processing to include lifts; digital imagery; Alternate Light Source (ALS); ninhydrin, DFO, or other chemical process; deposition processes; and up to 10 others.
LCMSReq003	The OC ABI System shall permit Cal-ID System administrators in populating and updating a table of statutes of limitations based on state crime codes.
LCMSReq004	The OC ABI System shall permit Cal-ID system administrators in selective maintenance of the LCMS files, unsolved latent file, and matcher files to include correcting incorrectly entered information, moving images between cases, associating cases, and updating the table of statutes of limitations based on state crime codes.
LCMSReq005	The OC ABI System shall automatically track all latents submitted to external agencies for retention.
LCMSReq006	The OC ABI System shall automatically track for reporting purposes all latents submitted by external and internal agencies including all vendor workstations and ULW applications.
LCMSReq007	The OC ABI System shall automatically identify situations where searches against different latents from the same case have identical candidates anywhere in the top 100 positions and alert the examiner(s) assigned to the case with a message in their work queue. The OC ABI System examiner community refers to this as a latent candidate merge.
LCMSReq008	The OC ABI System shall offer latent examiners and system administrators the ability to remove latent images from the OC ABI System and/or an external

⁶ Statute of Limitations table to be determined by OCCL and set by contractor per this table

Requirement ID #	Requirement
	unsolved latent file(s), both automatically through workflow parameters and manually on demand.
LCMSReq009	If latent examiners and system administrators elect [LCMSReq007] to remove a latent image from any external system's unsolved latent file, the OC ABI System shall automatically generate the appropriate TOT from Table 29.
LCMSReq010	The OC ABI System shall queue up cases set to expire in 30 days and allow examiners to open, review, set the case to NOT delete in 30 days, thereby removing it from the queue and setting the auto-delete flag to No.
LCMSReq011	The OC ABI System shall support the latent examiners and system administrators in selectively opening and dealing with administrative message in their work queue and in re-launching or closing cases where the statute of limitations expired notice has been sent to them.
LCMSReq012	The OC ABI System shall automatically delete unsolved cases from the LCMS when the statute of limitations expires if the Auto-Delete flag was set to "Y" in LCMS when the case was opened or at any later point.
LCMSReq013	If the LCMS automatically closes or deletes a latent case that has any images in an external system's unsolved latent file, the OC ABI System shall automatically generate the appropriate TOT from Table 29 and send to all applicable external systems. Note: a local delete should occur only after all external system responses have been received
LCMSReq014	The OC ABI System shall forward latent management transactions to CalDOJ and/or the FBI's NGI system.
LCMSReq015	The OC ABI System shall be able to ingest external system responses from CalDOJ, the FBI (ULAR, ULDR, LSMR, ERRL and ERRA TOTs).
LCMSReq016	The OC ABI System shall use the response information from CalDOJ or the FBI to update the transaction log.
LCMSReq017	The OC ABI System shall automatically forward any external system response transactions to the appropriate LCMS.
LCMSReq018	The OC ABI System shall automatically log all latent management transactions and activities to include date, time, person performing the activity, activity type, status (successful or problem encountered), and any changes to the OC ABI System or external system matcher files of unsolved latents.
LCMSReq019	The OC ABI System shall record a copy of each ingested transaction in the ANSI/NIST Archive in the fully CA/FBI EBTS compliant form in which it was received.
LCMSReq020	The OC ABI System shall support latent examiners in the scanning of major case prints, to include known exemplars of palm and finger proximal, medial, distal, side and tip friction ridge, at the recommended 1200 ppi to include

Requirement ID #	Requirement
	storing them in appropriate Type-14 or Type-15 records, assigned to a specific Latent case.
LCMSReq021	The OC ABI System <i>shall</i> support latent examiners in searching latents against the major case prints associated with a case.
LCMSReq022	The OC ABI System <i>shall</i> support latent examiners and system administrators in the linking of major case prints to additional cases.
LCMSReq023	The OC ABI System <i>shall</i> support latent examiners and system administrators in the deletion of major case prints.
LCMSReq024	The OC ABI System <i>shall</i> support latent examiners by providing demographic search capability against facial photos and SMTs as follows: • Ingest search parameters selected from a pull-down list of Field types • Search and produce a candidate list of OCN and TCNs that contain the matched demographics with thumbnails of the photo/SMT • Permit the examiner to select an OCN and/or TCN from the candidate list and bring up the associated Photo or SMT from the Master ID cross-reference file or to a specific archived transaction within the constraints of BisRule001. The list will be presented/sorted by the preponderance of the matching demographics. • Selectively print the candidate list and/or the selected subject
LCMSReq025	The LCMS will provide tracking of the processing of latents through all searches to include maintaining a log of searches, image processing, candidates, etc for all vendor workstations or a ULW application.
LCMSReq026	The OC ABI System <i>shall</i> support latent examiners and system administrators in the relaunching LT-TP from file major case prints.

4.6. OC ABI System Admin Services

The Cal-ID Administrator will be responsible for the integrity of information in the System: creating and maintaining user accounts; backing up and restoring files; exporting files in response to ad-hoc requests; generating reports; and adding, deleting and modifying workflow processing parameters specific to TOTs and ORIs on an as needed basis. The default setting for the administrative fields will be developed during the implementation of the system through Cal-ID – vendor collaboration.

4.6.1. Functional Requirements –ADMIN– System Administration Management

Administrative tasks will start with the Cal-ID Administrator(s) or Cal-ID Supervisor level logging into a workstation connected to the OC ABI System. They will deal with System error messages, assist in recovering from problems, and generate problem reports via e-mail, 24 X 7 help desk calls or other means. Additionally, the Cal-ID Administrator will be qualified to add, modify and delete workflow Processing Parameters mentioned throughout the workflows specific to TOTs and ORIs.

4.6.1.1. Admin Reports

The administrators will be able to generate reports using an intuitive and easy-to-use web-based reporting module. The web-based reports must have the ability to drill up or down in granularity for different levels of management reporting (e.g., being able to view a summary report for all actions for an ORI or being able to view a report for a single user and/or device in any given time period).

The report generation tool **shall** permit ad hoc selection of fields, data ranges within fields, and Boolean operators against the repository, system logs, and system performance and capacity metrics. The report generation tool will support mathematical analysis (e.g., averaging, maximums and minimums) dynamic ordering of information within the reports. The tool will further support exporting report content to Word, Excel, PDF, and CSV as appropriate.

Table 31 Cal-ID Administrator Functional Requirements

Requirement ID #	Requirement
AdminFuncReq001	The OC ABI System shall support the Cal-ID Administrator to selectively set up and manage at least 10 classes of users (e.g., latent supervisor) with configurable permissions per class.
AdminFuncReq002	The OC ABI System shall support the Cal-ID Administrator in assigning a default modular system workflow and default processing parameters (PP) for each TOT, ORI, and biometric device ID/AFIS combination.
AdminFuncReq003	The OC ABI System shall support the Cal-ID Administrator or Cal-ID Supervisor in editing the default PP [AdminFuncReq002].
AdminFuncReq004	The OC ABI System shall actively notify the Cal-ID Administrator when specific services stop running, when specific services are disconnected, when a settable number of transactions are queued up in a specific state and shall automatically restart any services that have stopped running.
AdminFuncReq005	The OC ABI System shall provide a user-friendly web interface for Cal-ID administrators to manage devices, with the following capabilities: add new devices, remove existing devices, and modify device information. Supported device types include, but are not limited to: Livescan, Mobile ID, and Scanner.
AdminFuncReq006	The OC ABI System shall support the Cal-ID Administrator in assigning, editing, and managing the fields and record types that may be disseminated and viewed (BisRule001) to non-owner and/or to OCCL examiners with limited file access authorization.
AdminFuncReq007	The OC ABI System shall support the Cal-ID Administrator in assigning, editing, and managing workflow priorities PPs as defined in AdminFuncReq003, with up to 9 priorities to conform to the ANSI/NIST Standard for Field 1.006: “The values will range from “1” to “9”, with “1” denoting the highest priority. The default value will be defined by the agency receiving the transaction.”
AdminFuncReq008	The OC ABI System shall support the Cal-ID Administrator in assigning, editing, and managing all matching Thresholds specific to each TOT, ORI and biometric device ID group as defined in AdminFuncReq003.

Requirement ID #	Requirement
AdminFuncReq009	Reserved
AdminFuncReq010	The OC ABI System shall enable the Cal-ID Administrator to selectively back up the OC ABI System, biographic, ANSI/NIST Archive, and/or forensic files at all System levels.
AdminFuncReq011	The OC ABI System shall support the Cal-ID Administrator in selectively restoring the OC ABI System, biographic, ANSI/NIST Archive, and forensic files.
AdminFuncReq012	The OC ABI System shall allow the Cal-ID Administrator to selectively ingest any supported transaction(s), individually or in bulk, and process them as appropriate to the TOT to include dynamically modifying the ingested transactions, TOT into another TOT individually or in bulk.
AdminFuncReq013	The OC ABI System shall permit the Cal-ID Administrator to selectively cancel programs that are not responding and restart any program or computer.
AdminFuncReq014	The OC ABI System shall support the Cal-ID Administrator, through an intuitive web-based interface, in selectively exporting, in bulk or individually, and with selectable criteria, ANSI/NIST conformant transactions along with any control files or indices such as the MCI. Exported files are automatically saved to a pre-configured, easily accessible location for Cal-ID Administrator.
AdminFuncReq015	The OC ABI System shall support the Cal-ID Administrator in selectively exporting “unknown” (latent) files in bulk or individually to include images, EFS features, and case / image information.
AdminFuncReq016	Reserved
AdminFuncReq017	The OC ABI System shall support automated logging of the following information: 1. Time of use, User identification, Accessed functionality, and Other relevant usage metrics. 2. Viruses encountered – at the device level. 3. All unsuccessful login attempts, are recorded at the device level.
AdminFuncReq018	The OC ABI System shall support automated logging of the following information for the date/time of the request: 1. Disk Memory Usage: The amount of disk memory used, free, and total for each system and component, including the ANSI/NIST Archive, temporary files (e.g. transaction temp files), and LCMS. 2. Matcher Memory Usage: Peak and average matcher memory usage, both used and free, on an hourly and daily basis, broken down by system and component. 3. Matcher Utilization: Matcher utilization and saturation levels at the device level, are measured hourly and daily.

Requirement ID #	Requirement
AdminFuncReq019	The OC ABI System shall support automated logging of the following information for a definable date/time range: 1. System Shutdowns: Details of any abnormal computer shutdowns, including diagnostic information. 2. Transaction Quality: The number and percentage of transactions that passed or failed parser and image quality checks, categorized by class and TOT. 3. Manual Reviews: The number and percentage of transactions manually reviewed by OCCL staff for quality control (QC) and verification. 4. Workflow Errors: The number and percentage of transactions that encountered errors during any workflow processing or output step.
AdminFuncReq020	The OC ABI System shall support automated logging of individual finger and average by hand NFIQ scores sorted by TOT, submitting ORI, or date/time range.
AdminFuncReq021	The OC ABI System shall support automated logging of vendor selected quality assessment score of individual fingers and averages by hand to include for each log entry the respective TOT, submitting ORI, and date/time.
AdminFuncReq022	The OC ABI System shall support automated logging of vendor selected quality assessment score of individual palm images and averages by hand to include for each log entry the respective TOT, submitting ORI, and date/time.
AdminFuncReq023	The OC ABI System shall support the administrators in generating reports using a robust report generation tool that permits ad hoc selection of fields, data ranges within fields, and Boolean operators against the repository, system logs, and system performance and capacity metrics. Examples of frequently generated reports include: • Livescan Activity ○ by LSID, by TOT, by Date Range, by Operator, by ORI • Mobile ID Activity ○ by TOT, by Device ID, by Device ID Range, by ORI, by Date Range, by Operator, local hits/no hits/error, DOJ hits/no hits/error, FBI hits/no hits/error • Operator Activity ○ by Date, by Date Range ○ by Activity ▪ Sealed Cases by Date Range, by Operator ▪ Deleted Cases by Date Range, by Operator, Reason ▪ Modified records by Date Range, by Operator ▪ OCN consolidation by Date, by Date Range, by ID • System Activity ○ Archive and Matchers Summary ○ Database size – used space, available space ○ Processing times, Transaction Logs, Workflow History

Requirement ID #	Requirement
	○ Workload Summary – Latent, Tenprint, Mobile ID (# of transactions by date range) ○ Peak workload – peak hours workload by any given date latent, Tenprint, Mobile ○ Mug Photo Export Detail – detailed list of exported IDs and exceptions/errors by date ○ Mug Photo Export Summary - # of photos exported by date range
AdminFuncReq024	The OC ABI System shall support mathematical analysis and dynamic ordering of information within the reports [AdminFuncReq023].
AdminFuncReq025	The OC ABI System shall support exporting report content [AdminFuncReq024] to Word™, Excel™, or PDF™ as requested.
AdminFuncReq026	The OC ABI System shall support system administrators and supervisor(s) by providing demographic search capability against facial photos and SMTs as follows: • Ingest search parameters selected from a pull-down list of Field types • Search and produce a candidate list of OCN and TCNs that contain the matched demographics with thumbnails of the photo/SMT • Permit the examiner to select an OCN and/or TCN from the candidate list and bring up the associated Photo or SMT from the MCI file or to a specific archived transaction within the constraints of BisRule001. The list will be presented/sorted by the preponderance of the matching demographics. • Selectively print the candidate list and/or the selected subject
AdminFuncReq027	The OC ABI System shall support the Cal-ID Administrator in assigning PPs to workflows as defined in AdminFuncReq003 to establish, define, modify and delete authorized access and functionalities (TOT) for each cross-jurisdictional ORI, including but not limited to establishing the default matching priority processing parameters, threshold parameters, and per AdminFuncReq006 the Fields and records that can be exchanged.
AdminFuncReq028	The OC ABI System shall support the Cal-ID Administrator with the ability to set the auto assign OCN number to any group of numbers by selecting a beginning and end OCN.
AdminFuncReq029	The OC ABI System shall support the Cal-ID Administrator in assigning a default set of forms, key entry and data validations for each TOT and DAI. The validation can vary for each TOT depending on the destination agency.
AdminFuncReq030	The OC ABI System shall support the Cal-ID Administrator or Cal-ID Supervisor in selecting a specific TOT set of data entry and data validation guidelines to include at the TOT and DAI level:

Requirement ID #	Requirement
	1. Tables and field definitions will be initially defined by standard tables and will be periodically updated by the table authority 2. All default values will be identified 3. Fields can be defined to be automatically populated with a default and/or cascading value into other fields to best minimize key entry 4. The OC ABI System will provide drop down menus for data fields 5. Tables can be defined to accept new values as identified by the operator
AdminFuncReq031	The OC ABI System shall allow the system administrator to easily access and review system log files for investigating and troubleshooting transaction issues
AdminFuncReq032	The OC ABI System shall actively notify the Cal-ID Administrator when: 1. The temporary buffer (StorageReq001or StorageReq002) is 90% full; every 24 hours until it falls below 90% 2. The temporary buffer (StorageReq001or StorageReq002) is 98% full; every hour until it falls below 98% 3. If either temporary buffer (StorageReq001or StorageReq002) reaches 100% full. 4. Note: the OC ABI System will notify the Cal-ID Administrator and the Cal-ID Administrator or the system supervisor who will have the ability to manually delete transactions per AdminFuncReq033.
AdminFuncReq033	The OC ABI System shall provide the Cal-ID Administrator with the ability to manually delete transactions from the temporary queues on a one-by-one basis or by selecting groups based on TOT, ORIs and/or completion or initial dates.
AdminFuncReq034	The OC ABI System shall provide the Cal-ID Administrator with the ability to monitor the OC ABI System network by producing network access summary reports, workload and peak load reports.
AdminFuncReq035	The OC ABI System shall provide the Cal-ID Administrator with immediate notifications of any and all attempted and actual security breaches and unauthorized OC ABI System Network system accesses, by providing a detailed report of the access or breach of the network.
AdminFuncReq036	The OC ABI System shall notify the Cal-ID Administrator when the Archive (StorageReq004) is 80% full, 85% full, and 90% full.

4.6.1.2. Admin Processing

The OC ABI System **shall** process all requests from the Cal-ID Administrator, as enumerated above.

4.6.1.3. Admin Outputs

The OC ABI System **shall** support the output types identified in the input functions for Cal-ID Administrator, as enumerated above.

5. TECHNICAL REQUIREMENTS

This section provides the System technical requirements for the new OC ABI System environment. The Technical Requirements are organized as follows:

- Capacity Requirements – capability to store some number of a class of items such as:
 - Enrolled transactions
 - Searchable feature-based data sets on-line in matcher.
- Performance requirements – number of events and units of time such as:
 - Throughput as expressed in transactions turned around in a period of time
 - Average transaction response time
- Accuracy requirements – matcher capability
 - Tenprint to tenprint accuracy
 - Other-ID slaps to tenprint accuracy
 - Tenprint to latent accuracy
 - Latent to tenprint accuracy
 - Palm latent to known palm accuracy
 - Criminal known palm to latent accuracy
- Safety Requirements
- Security Requirements
- Environmental Requirements – such as uninterrupted power supplies and office environment noise levels.
- Form and Fit Requirements for workstations and printers
- Reliability, Maintainability, and Availability requirements
- Network requirements

II.

5.1. Storage Capacity Requirements

Storage capacities are relevant to multiple areas of the OC ABI System architecture to include:

- Storage of image files to be used in verifications
- ANSI/NIST Archive storage
- The templates / features loaded in the matchers
- Temporary Storage of transactions

The following subsections delineate these requirements and will refer to the tables provided below. The capacity will grow over the life of the system. Table 32 Storage Capacities by Image Type by Year projects the growth of annual cumulative transactions through 2030.

Assumptions:

- The percentage of criminal transactions that match within Cal-ID is approximately 70%
- Average livescan transactions are 90,000-100,000 per year
- Approximately 40% of the legacy electronic repository load of tenprint records will be at 500 ppi. All other records to be stored should be at 1000 ppi.
- There are approximately 998K mug photos in the system, with the following SAP levels:
 - SAP 30 – 298K
 - SAP 40 – 350K

- SAP 50/51 – 350K

Table 32 lists the current and projected subject and ANSI/NIST Archive sizes for Cal-ID:

Table 32 Storage Capacities by Image Type by Year

Cumulative Events	2023	2024	2025	2026	2027	2028	2029	2030
Tenprint (K ⁷) (500 & 1000 ppi)	7,887	8,282	8,696	9,130	9,587	10,066	10,570	11,098
Tenprint Subject Folders	1,623	1,704	1,790	1,879	1,973	2,072	2,175	2,284
Palms (K) (500 & 1000 ppi)	1,569	1,647	1,730	1,816	1,907	2,002	2,103	2,208
Tactical (K)	94	108	124	143	164	189	217	250
Modified transactions (K) (includes images)	295	310	325	341	359	377	395	415
Unsolved latent (LT) FP (K)	83	87	92	96	101	106	111	117
Unsolved latent (PLT) PP(K)	32	34	35	37	39	41	43	45
NIST Responses and forwards (K)	23,823	25,014	26,265	27,578	28,957	30,405	31,925	33,521

Table 33 Temporary Storage Capacity Requirements

Requirement ID	Requirement
StorageReqTM001	The OC ABI System shall have the disk storage capacity of at least 500 GB for storing transactions in a temporary file.
StorageReqTM002	The OC ABI System shall have the disk storage capacity of at least 500 GB for use in workflow 1, 2, 3, 5, and LCMS's work queues for quality control, tenprint verification, and palmprint verification.

The OC ABI System will be designed to accommodate an ANSI/NIST Archive of all input and output transactions through the life of the Contract, including a conversion effort. The addition of response TOTs

⁷ K is short for thousands of records

will make the capacity requirements larger than the storage of input transactions only, however most response transactions generated by the OC ABI System are smaller than the corresponding input transactions. The vendor will have to perform the appropriate design analysis to determine the design requirements in Gigabytes as a function of transaction type using the data specified in this document.

At the initial operating point of the OC ABI System, all existing records will have been loaded into the OC ABI System to include loading them into the ANSI/NIST Archive, the matchers, any verification repositories, and the MCI.

Table 34 OC ABI System Storage Capacity Requirements

Requirement ID	Requirement
StorageReq001	The OC ABI System <i>shall</i> have the capacity to store in the ANSI/NIST Archive at the initial delivery, at least the number of EBTS transactions listed per year in Table 32 for the year 2030; where 100% of the new known friction ridges are captured at 1,000 ppi and all unknown friction ridges (i.e., latents) are captured at 1,000 ppi.
StorageReq002	The OC ABI System <i>shall</i> have the capacity to store in the matchers the templates for enrolled fingerprints using BisRule003, up to the year 2030 capacity.
StorageReq003	The OC ABI System <i>shall</i> have the capacity at the initial delivery to store in the matchers the templates for enrolled unsolved fingerprints and palmprints at the levels shown in Table 32 for the year 2030.
StorageReq004	The OC ABI System <i>shall</i> have the capacity to store a backup copy on portable digital media of all ANSI/NIST transactions that are in the ANSI/NIST Archive and the feature sets in the matchers, in any given year at the 2030 capacity, as a backup for the ANSI/NIST Archive and Matchers.
StorageReq005	The OC ABI System <i>shall</i> have the capacity and ability to create and store a backup copy of all LCMS, Verification image sets, and other critical files that reside on any workstations, at the year 2030 capacity.

5.2. Performance Requirements

The OC ABI System will meet performance (throughput and response time) requirements as specified in this section. DVI transactions will not be timed nor is it known how many will be submitted in any given day therefore, they are not specified as having specific throughput or timing requirements.

5.2.1. Throughput Requirements

The OC ABI System throughput requirements cover all three classes of workflows:

- Identification (Tenprint) Services
- Forensic (Latent) Services
- Tactical (Mobile ID and other rapid searches) Services

The OC ABI System daily throughput rates will grow over the life of the System. Refer to Table 35 for the estimated values.

Table 35 Average Daily Transaction Rates per Calendar Year

Type of Transaction	2023	2024	2025	2026	2027	2028	2029	2030
<i>Known Submittal Identification Services</i>								
Criminal TP-TP	2080	225	243	263	283	306	331	357
Other TP-TP	43	47	51	55	59	64	69	74
ID Slaps-TP	14	17	19	23	27	32	38	45
<i>Forensic Services</i>								
TP-LT	208	225	243	263	283	306	331	357
KP-PLT	211	228	247	266	288	311	335	362
LT-TP	3	3	4	5	5	6	7	8
PLT-KP	1	1	2	2	2	2	2	3
LT-LT	50	55	61	65	70	85	90	97
PLT-PLT	20	22	24	26	28	34	36	39
<i>Tactical Services</i>								
Tactical TP-TP (2+ Fingers)	14	17	19	23	27	32	38	45
Tactical PDNS TP-TP (5+flat fingers)	208	225	243	263	283	306	331	357

The Throughput requirements are for concurrent ingest and processing of identification, forensic, and tactical transactions. The Peak rates are expressed as a percentage of the year 2030 average daily rates. The Peak Hour will be made up of these peak periods and the rest of that Peak Hour will consist of average loads – for instance the Peak Hour will have a load of a peak 30 minutes’ worth of Criminal TP-TP and 30 minutes of the average Criminal TP-TP.

Table 36 Peak Rates for Throughput Requirements

Transaction Type	Duration of Peak Period	% of 2030 Average Daily Rate
Criminal TP-TP	30 minutes	10%
Other TP-TP	1 hour	20%
ID Slaps-TP	30 minutes	10%
Tactical TP-TP	5 minutes	2%
TP-LT	30 minutes	20%
KP-PLT	1 hour	20%

Transaction Type	Duration of Peak Period	% of 2030 Average Daily Rate
LT-TP (100% penetration)	30 minutes	10%
LT-LT (100% penetration)	30 minutes	10%
PLT-KP (100% penetration)	30 minutes	10%
PLT-PLT (100% penetration)	30 minutes	10%

Table 37 Throughput Requirements

Requirement ID #	Requirement
ThruPutReq001	The OC ABI System shall be able to ingest, process, and respond in the peak period to at least the percentage of the daily average Tenprint Identification transactions (TP-TP) as stated in Table 35, while Forensic and Tactical transactions are being ingested, processed, and responded to. [This requirement is independent of any time for examiners to perform QC on the input stream or to review candidate lists / perform verification.]
ThruPutReq002	The OC ABI System shall be able to ingest, process, and respond in the peak period to at least the percentage of the daily average Forensic forward latent transactions as stated in Table 35 while identification and Tactical transactions are being ingested, processed, and responded to. [This requirement is independent of any time for examiners to perform QC on the input stream or to review candidate lists / perform verification.]
ThruPutReq003	The OC ABI System shall be able to ingest, process, and respond in the peak period to at least the percentage of the daily average Tactical transactions as stated in Table 35 while identification and Forensic latent transactions are being ingested, processed, and responded to.
ThruPutReq004	If in any day the OC ABI System is presented with more transactions in a peak hour than the design capacity, the OC ABI System shall queue the additional work up and process it as soon as capacity is available with that processing to be based on the priority of the transactions.

5.2.2. Response Time Requirements

The response time for OC ABI System transactions is a function of the transaction type (identification, forensic, and tactical). The response times do not include any staff interaction times for QC, verification, or any other review.

Table 38 provides the response times per class of transaction while Table 39 defines the requirements for providing these response times.

Table 38 Response Times per Class of Transaction Type

Transaction Types	Response Time Requirements During Peak Periods
Criminal, Registrant TP-TP	5 minutes
Other TP-TP	30 minutes
ID Slaps-TP	5 minutes
TP-LT	60 minutes
LT-TP	10 minutes
PLT-KP	20 minutes
KP-LT	60 minutes
LT-LT	30 minutes
PLT-PLT	30 minutes
Tactical ID TP-TP	2 minutes

The response time requirements stated below are for 95% of the transactions in any period as there are always some outliers caught up in processing and they will not be considered in the performance testing. Testing will be done against the initial repository load using a test set with a mixture of all transaction types at the peak rates calculated using Table 38.

Table 39 Response Time Requirement

Requirement ID	Requirement
ResponseTimeReq001	For the base Contract, the OC ABI System <i>shall</i> provide responses for 95% of submitted transactions per the values in Table 38. Response time to be measured from the beginning of the transaction's ingest through the final response and the Transmission of a response back to the submitting site, with no error-burdened transactions in the mix. The end-to-end measurement will exclude all human intervention times.

5.3. Accuracy Requirements

The matcher accuracy will vary as a function of the class of service (identification, forensic, and tactical) and the quality of the input images. Identification service accuracy requirements are typically higher than those for forensic services as the input images are typically of better quality for livescan enrollments than for latent lifts.

Accuracy terms-of-art have been undergoing an evolutionary change for the past few years. While reliability, true accept rate, false reject rate, and other terms are often used for access control systems and

other biometric modalities (such as facial recognition), a consensus has developed in the international standards community around the terms true match rate and failure to match rate when discussing friction ridge matching on a large-scale.

For this project, accuracy will have four accuracy terms:

True Match Rate – (TMR) the probability that a true match will be found when it is in the background reference file (also known as a repository). This term replaces older terminology such as matcher reliability or true accept rate.

Failure to Match Rate – (FTMR) the probability that a search will not return a true mate when the true mate is in the reference file. The failure to match rate is 100% minus the True Match rate. While not explicitly stated in the requirements, it will be calculated during testing and reported on.

Selectivity – the number of candidates that will be examined to determine the true match rate. While the Cal-ID Administrator will be able to selectively change the length of candidate lists by transaction class and by threshold scores, during testing, system accuracy will be measured using the selectivity numbers in Table 40.

False Match Rate – (FMR) the probability that an incorrect false mate can be identified as an automated true mate regardless of the true mate is or is not in the background reference file.

Table 40 Accuracy Rates by Transaction Type

PTransaction Types	Selectivity	TrueMatch Rate	Minimum # of Congruent Minutiae
TP-TP	1	99.9%	N/A
ID Slaps-TP	1	99.8%	N/A
TP-LT	1/5	70% / 80%	12
LT-TP	1/5	70% / 80%	12
PLT-KP	1/5	70% / 80%	14
KP-PLT	1/5	70% / 80%	14
Tactical TP-TP (with at least 2 prints, and fewer than 10 prints, search records will be Fingerprint Acquisition Profile (FAP)-30 or better)	1	99.5%	16

Table 41 Accuracy Requirements

Requirement ID #	Requirement
AccuracyReq001	The OC ABI System <i>shall</i> provide accuracy for submitted transactions per the values in Table 40 while conforming to the response times in Table 38. The accuracy will be measured with a mutually agreed upon test set consisting of search

Requirement ID #	Requirement
	and reference file images of NIST Fingerprint Image Quality (NFIQ) level 3 or better and with vendor Best Practices being used.

5.4. Safety Requirements

There are two requirements for the electrical safety of the OC ABI System. They are specified in Table 42. The intent is to ensure that safe equipment is used and that it is installed properly in terms of grounding (e.g., any power strips used at the OC ABI System workstations must be certified and be installed and used correctly).

Table 42 Safety Requirements

Requirement ID	Requirement
SafetyReq001	All hardware configuration items delivered as part of the OC ABI System shall conform to the appropriate US Underwriters Lab standards for electronic devices and be so certified.
SafetyReq002	All required grounding shall conform to the manufacturer's specifications and recommendations.

5.5. Security Requirements

All configuration items that process, transmit, or store digital information delivered as part of the OC ABI System will require some level of Information Security (InfoSec), as the System is connected to the FBI's criminal justice network. The CJIS security requirements must be complied with, including user and administrator log in rules, audit trail requirements, and reporting capabilities.

InfoSec includes ensuring data Confidentiality, Integrity, and Availability of the data and thus anti-virus protection is to be included in the Systems to the extent that there are commercial Endpoint protection packages available for the operating Systems selected by the Vendor.

Table 43 InfoSec Requirements

Requirement ID	Requirement
InfoSecReq001	Although some specific requirements may be highlighted in this SOW, the OC ABI System design shall conform to the CJIS Security Policy v 5.9.5 or later.
InfoSecReq002	Disable accounts within one (1) week when the accounts: a. Have expired; b. Are no longer associated with a user or individual; c. Are in violation of organizational policy; or d. Have been inactive for 90 calendar days.
InfoSecReq003	Data Encryption:

Requirement ID	Requirement
	a. Requirement for encryption of all sensitive data in transit and at rest. b. Use of approved encryption standards.
InfoSecReq004	Muti-Factor Authentication: Implement multi-factor authentication for access to privileged accounts and non-privileged accounts.
InfoSecReq005	Endpoint protection software shall be loaded on all processors that run Operating Systems where there are commercial Endpoint protection packages available.
InfoSecReq006	The Endpoint protection software shall automatically virus scan all files on portable data storage devices (i.e., CDs, DVDs, USB devices with memory, and floppy disk media) presented to a System [InfoSecReq002] and report alerts and other problems.
InfoSecReq007	The Endpoint protection software shall automatically log all cyber threats alerts and action taken.
InfoSecReq008	The OC ABI System shall support the updating of Endpoint protection software repositories of virus information without compromising the security of the System.
InfoSecReq009	Confirm Viability of NIST Package. The OC ABI System shall: Only accept transactions from pre-authorized systems, as defined and maintained by the Cal-ID Administrator. The OC ABI System shall return a reject notice back to unauthorized systems and log all failed attempts.
InfoSecReq010	The OC ABI System shall process transactions from Internal and External Systems: Only when transactions InfoSecReq001-006 has been met Only when the ingested TOT, ORI and biometric device ID has been identified as “current” in the authorized Cal-ID Administrators Processing parameters (i.e. the request is within the activation and termination dates for same TOT, ORI and biometric device ID). The OC ABI System shall retain a copy of the Processing Parameters used for each transaction in the ANSI/NIST Archive and in the system logs.
InfoSecReq011	The OC ABI System shall keeps its internal clocks synchronized at least once per month automatically with an approved external clock and facilitate synchronizing all system clocks within the OC ABI Network.

5.6. Environmental Requirements

If workstations are delivered as part of the new system, there are OCCL Cal-ID imposed environmental requirements on all workstations (workstation / peripherals such as printers).

The System design will include the capability to meet the following power / voltage conditioning and related availability requirements as well as noise level requirements in Table 44. These requirements address sustainment of power during blackouts and brownouts and noise levels in an office environment.

Table 44 Power Requirements

Requirement ID #	Requirement
EnvrnReq001	Each workstation shall have an Uninterruptable Power Supply (UPS) that can support the workstation for up to 20 continuous minutes in the event of a loss of building power.
EnvrnReq002	Each workstation UPS shall provide the user with a signal in cases where the UPS has been the only source of power to the device for 10 continuous minutes.
EnvrnReq003	Each workstation shall automatically shut down properly based upon the receipt of a ten-minute warning if the operator does not initiate a shutdown within 15 minutes of the signal if the UPS has continuously remained the only source of power to the device for that time.
EnvrnReq004	Each workstation shall be able to operate in an office environment, without any requirement for supplemental air conditioning or noise suppression: • 68° to 72° temperature with a relative humidity between 40% and 60%. • Noise below 70 decibels (dBA) measured at the workstation site.

5.7. Form & Fit Requirements

This section provides the form and fit requirements for the OC ABI System in Table 46. OCCL anticipates having fewer personnel than the total number of examiners on duty at any given time. To control software license costs the system requirement includes functionality to permit dynamic allocation of licenses within two groups of services:

1. OCCL Tenprint services
2. OCCL and Remote Agency Latent services

Table 45 Dynamic Allocations of Software Licenses

Requirement ID	Requirement
DASLReq001	The OC ABI System shall be able to dynamically allocate software licenses within each of the two groups of OCCL services listed above.

The requirements in Table 46 are for workstations and card printers delivered to OCCL Cal-ID sites.

Table 46 Form and Fit Requirements for Workstations

Requirement ID	Requirement
F&FReq001	Each tenprint workstation shall have: 1. High-performance multi-core CPU (e.g., Intel Xeon or AMD EPYC series) High-end professional GPU (e.g., NVIDIA Quadro RTX series or AMD Radeon Pro) Minimum 64GB, preferably 128GB or more of high-speed DDR4 or DDR5 RAM One 27-inch or larger OLED panel 4K or higher display, Color-accurate displays for precise image analysis, AMD FreeSync Premium; / NVIDIA G-Sync Compatible; 2. 10 Gigabit Ethernet for fast network communication 1TB or higher fast SSD for OS and applications (NVMe PCIe 4.0 or 5.0) Wireless, silent, and backlit keyboard and wireless mouse 3. FBI EBTS Appendix F certified flatbed scanner at 1200 ppi (can be shared with adjacent tenprint workstation), to include the operating system and application software used in the certification. 4. At least 4 USB 4.0 Ports
F&FReq002	Each latent workstation shall have the same specifications as the tenprint workstation
F&FReq003	Photoshop shall be fully accessible from the QC and verification screens, any charting/markup or database maintenance screens, and the LCMS on each workstation to permit examiners to exercise all capabilities and options of the software's capabilities. Contractor shall offer shortcuts or buttons for customized scripts/sets of Photoshop actions pre-determined by OCCL examiners.
F&FReq004	Each card printer shall have: 1. At least two drawers /trays to support fingerprint and palmpoint card stock, and plain office paper (8.5 by 11 inch) simultaneously without having to physically change trays 2. FBI EBTS Appendix F Certified at 1200 ppi 3. Two-sided print capability 4. Performance metric of 3 cards/min when operating in a one-sided mode Ability to print on standard 8" x 8" fingerprint cards, Support for various paper sizes up to legal size (8.5" x 14") 5. USB 3.0 or higher 6. 1 Gigabit Network Interface Card 7. At least 1GB of memory 8. Color and grey scale capability, Capability for 500 ppi for certain applications, 8-bit grayscale (256 levels) capability
F&FReq005	User interfaces shall be logical, intuitive, and efficient. Where buttons, check boxes, pull down menus, and other shortcuts exist for efficiency, the OC ABI System shall allow OCCL to define the order of the menus, what options to hide, and/or the next step taken for an action button. For example, in QC a "Save &

Requirement ID	Requirement
	Next” button shall bring the next oldest record forward or the next newest record forward, as determined by OCCL during system design. Drop-down lists shall be multi-click enabled, when appropriate.
F&FReq006	Contractor shall provide efficient ways to access Archive files from working screens, queues, etc., such as a right click or hyperlink from the BKN to the record in the archive
F&FReq007	The OC ABI System shall allow examiners to utilize productivity applications (such as Microsoft Word, Microsoft Excel, a pdf viewer, NIST viewer) without the need to switch to a different workstation.

5.8. Reliability, Maintainability, and Availability Requirements

This section provides the Reliability, Maintainability, and Availability (RMA) requirements for the OC ABI System and the OC ABI System Network. To support RMA, there are requirements for the ability to backup and restore the System or any of the major data and network components of it. This is considered necessary, for instance, for availability considerations at the OC ABI System level.

There are two sets of requirements:

- Backup and recovery
- Availability and restoration

5.8.1. Backup and Recovery

The OC ABI System will need to be backed up (data and System configurations) routinely for Continuity of Operations considerations. Copies of the backup media will be encrypted and stored off-site and online from the central site to increase the likelihood of their availability in case of a natural or man-made disaster.

Table 47 Backup & Recovery Requirements

Requirement ID	Requirement
BackupReq001	The OC ABI System shall permit the Cal-ID Administrator to selectively create full and incremental backups of any or all files on its workstations to include administrative files, temporary ANSI/NIST Archive files, master identity indexes, transaction results, and logs without impacting functionality of the System.
BackupReq002	The OC ABI System shall permit the Cal-ID Administrator to selectively support the recovery of any or all files from the backups [BackupReq001] to the appropriate locations.
BackupReq003	The OC ABI System shall permit the Cal-ID Administrator to selectively create full and incremental backups of any or all files on the OC ABI System to include administrative files, ANSI/NIST Archive files, transaction files, master identity indexes, transaction results, and the back-end matcher files to include feature sets and matcher identity indexes without impacting functionality of the System.

Requirement ID	Requirement
BackupReq004	The OC ABI System <i>shall</i> permit the Cal-ID Administrator to selectively support the recovery of any or all files from the backups [BackupReq003] to the appropriate locations.

5.8.2. Service Availability and Restoration Requirements

The availability of all OC ABI System services *shall* be no more than 45 minutes of unscheduled down time per month, as further defined in the table below. An additional four (4) hours per month are permitted for backups, upgrades and preventive maintenance without impacting the measurement of availability.

The maximum allowed unplanned downtime is 0.1% per month. The Minutes allowed vary according to number of days in a month and are calculated as follow:

Table 48 Allowed Minutes

A	B	C	D
Days in Month	Hours in Month (A x 24)	Hours x .1% (B x .001)	Allowed Minutes (C x 60)
31	744	0.744	45
30	720	0.72	43
29	696	0.696	42
28	672	0.672	40

If the actual availability of the system is less than the availability requirements for any period, such failure will constitute a Service Error for which Contractor will issue to the County the following credits on the fees payable during the service period.

In any given month, any increment of up to 60 minutes of unplanned downtime, in excess of the monthly Allowed Minutes will result in a service credit of 3.5% of the monthly service fee per hour, not to exceed 50% of the monthly service fee. For example, the following table illustrates the credit associated with a month containing 31 days.

Table 49 Unplanned Downtime Credit

Unplanned Downtime in Minutes	Uptime	Credit of Monthly Cost
0 - 45	99.90%	None
46 – 105	99.86%	3.50%
106 – 165	99.78%	7.00%
166 – 225	99.70%	10.50%
226 – 285	99.62%	14.00%
286 – 345	99.54%	17.50%
346 – 405	99.46%	21.00%
406 – 465	99.38%	24.50%

466 – 525	99.29%	28.00%
526 – 585	99.21%	31.50%
586 – 645	99.13%	35.00%
646 – 705	99.05%	38.50%
706 – 765	98.97%	42.00%
766 - 825	98.89%	45.50%
826 - 885	98.81%	49.00%
886 and greater	98.81%	50.00%

Table 50 ABI System Availability Requirements

Requirement ID #	Requirement
RMAReq001	During the life of this Contract, the OC ABI System shall provide functional support 24 hours a day, seven (7) days a week, with no more than a cumulative four (4) hours of scheduled outage time per any calendar month for routine maintenance, diagnostic tests, and upgrades.
RMAReq002	During the life of this Contract the OC ABI System shall provide functional support 24 hours a day, seven (7) days a week, with no more than 45 minutes of unscheduled outage of OC ABI System services – measured monthly, but not to include as unavailable time: 1) Up to four (4) cumulative hours of scheduled outages per month [RMARqt 001] 2) Any facility-wide power outages
RMAReq003	During the life of this Contract the portions of the OC ABI System Network supplied by the selected vendor shall provide functional support 24 hours a day, seven (7) days a week, with no more than a cumulative four (4) hours of scheduled outage time per any calendar month for routine maintenance, diagnostic tests, and upgrades.

The Contractor **shall** provide a monthly report describing actual availability of the system compared to the contracted availability requirement:

- When the performance has failed to meet contract requirements, report **shall** include a detailed description to inform the OCCL of the cause of failure and corrective actions the Contractor has taken and will take to ensure the availability requirements are met.

5.9. Network requirements

This section provides the Network requirements for the OC ABI System environment. The section also provides a description of the then current (May 2011) OCSD digital communications infrastructure associated with criminal justice information processing and a general description of the new network environment.

The current descriptions include lines to and from client sites (i.e., local police department (PD) livescans and remote latent workstations), the Cal-ID AFIS and its workstations in the OCCL, CalDOJ interfaces, the current local Store and Forward (S&F) device, the county criminal records system, etc.

The new communications infrastructure will provide a full suite of communications services and infrastructure for the new OC ABI System.

The new OC ABI System network will meet the security requirements specified in the FBI Criminal Justice Information Services (CJIS) CJISD-ITS-DOC-08140-5.0, CJIS Security Policy.

The network will be able to support the protocols used by the non-OC ABI System components (e.g., livescans). The new network will be designed to support the communications capacities, as calculated by the selected vendor during the requirements and analysis Milestone of the implementation Contract.

5.9.1. Current Communications Infrastructure

The following graphic represents a global view of the “current” ABI System and ABI System interfaced systems and services.

Figure 1 OCCL Current ABI System Environment

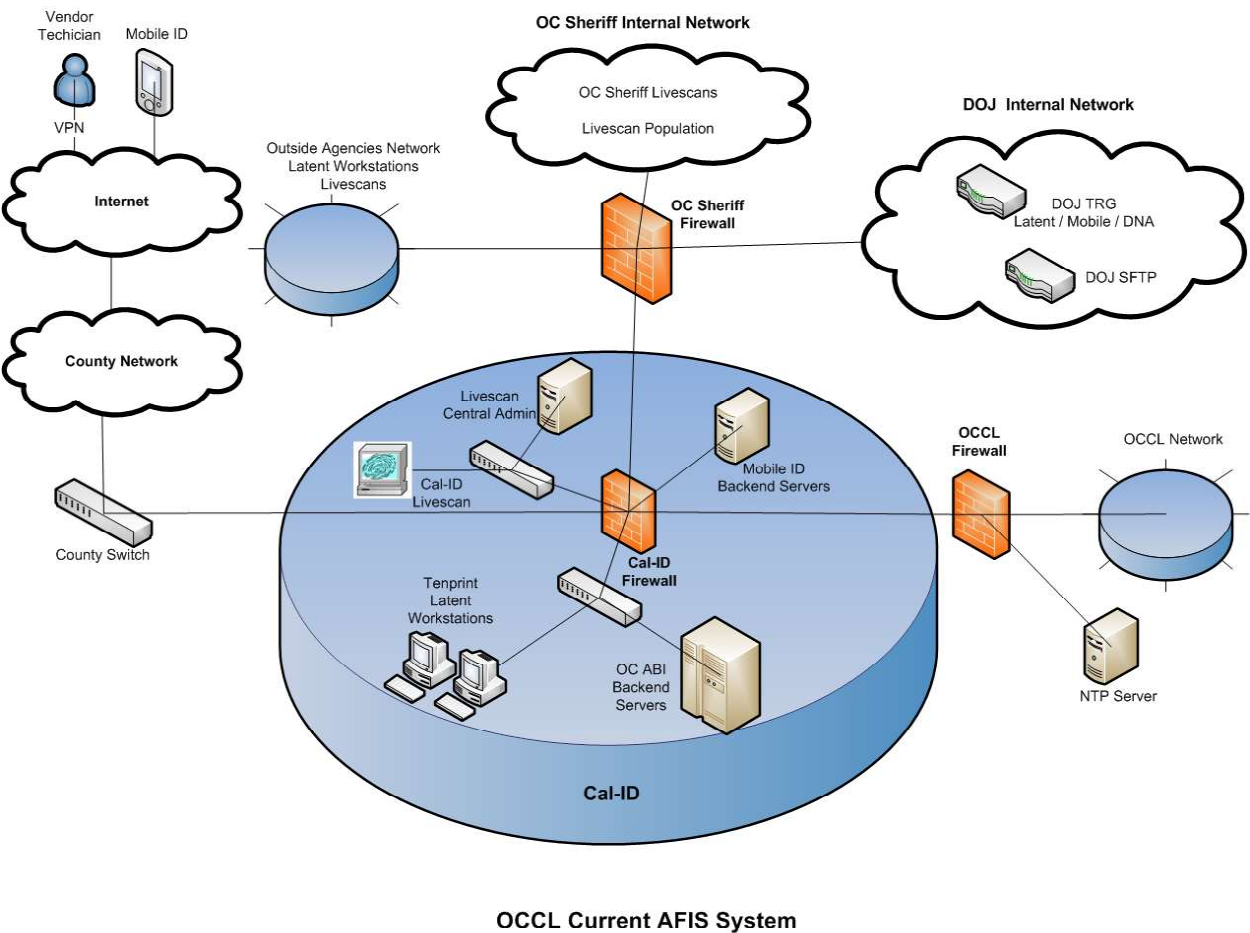


Table 51 provides a list of the networks known to Cal-ID and used in the OCSD criminal justice environment as of September 2024. The table is intended to provide a snapshot in time for use in network and interface analysis.

Table 51 List of Current OC Cal-ID Interfaces and Networks Utilized

System A	System B	Network utilized	Bandwidth capacity
AJS	OCSD LIVE SCANS	Sheriff's Network via OCSD WAN Server	45Mbps
Cal-ID AFIS	AFIS Latent Terminals in PDs	Sheriff's Network	10Mbps
Cal-ID AFIS	Cal-ID AFIS Tenprint Terminals @ OCCL	AFIS LAN	1Gbps
Cal-ID AFIS	Cal-ID AFIS latent Terminals @ OCCL	AFIS LAN	1Gbps
Cal-ID AFIS TC (Vendor Specific interface for tenprint, latent and CalDOJ	CalDOJ TC	Sheriff's Network	Unknown
Cal-ID AFIS tenprint and Latent@OCCL	Cal-ID AFIS TC	Sheriff's Network	Unknown
CEMS / DCS5	OCCL	OCCL LAN	1Gbps

5.9.2.New Communications Infrastructure

The new OC ABI System will employ a modern, standards-based architecture that will permit the integration of new services over time. The architecture is intended to offer more flexibility and capability than the current architecture. Many of the current communications paths may migrate to the new infrastructure to be provided by the selected OC ABI System contractor.

The OC ABI System will be connected electronically with the CalDOJ criminal justice environment and, through it, with the FBI and other external agencies.

Table 52 provides a list of the systems that will be used in the OCSD criminal justice environment to support the new OC ABI System. The network will provide interconnectivity as appropriate.

Table 52 List of New OC ABI System Interfaces and Networks

System A	System A Location	System B	System B Location
AJS / LARS	OCSD	OC ABI System	OCCL
OC ABI System	OCCL	AJS / LARS	OCSD

System A	System A Location	System B	System B Location
OC ABI System	OCCL	OC ABI System Latent Terminals	OC Terminal Locations See Table 2
OC ABI System Latent Terminals	OC Terminal Locations See Table 2	OC ABI System	OCCL
OC ABI System	OCCL	Cal-ID OC ABI System Tenprint Terminals	OCCL See Table 2
Cal-ID OC ABI System Tenprint Terminals	OCCL See Table 2	OC ABI System	OCCL
Remote Agency NIST LIVE SCAN	Various Orange County Agencies See Appendix D	OC ABI System	OCCL
OC ABI System	OCCL	Remote Agency NIST LIVE SCAN	Various Orange County Agencies See Appendix D
OCSD NIST LIVE SCAN	Various OCSD locations	OC ABI System	OCCL
OC ABI System	OCCL	OCSD NIST LIVE SCAN	Various OCSD locations
LIMS	OCCL	OC ABI System	OCCL
OC ABI System	OCCL	LIMS	OCCL

Table 53 New OC ABI Network Requirements

Requirement ID #	Requirement
NWReq001	The OC ABI System network <i>shall</i> provide maximum Transmission times per the following list: - Tenprint transactions without palms from a livescan to the OC ABI System central site – 30 seconds - Tenprint transactions with palms from a livescan to the OC ABI System central site – 180 seconds

Requirement ID #	Requirement
	• Responses to livescans – 10 seconds • Latent transaction from a remote OC ABI Workstation to the OC ABI System central site – 90 seconds • Latent transaction from a OCCL OC ABI Workstation to the OC ABI System central site – 10 seconds
NWReq002	The OC ABI System network <i>shall</i> conform to FBI Criminal Justice Information Services CJIS Security Policy.
NWReq003	The OC ABI System Network <i>shall</i> be sized to contain sufficient capacity to handle the peak communication transaction rates with a 50% design margin for each node and link.
NWReq004	The OC ABI System Network <i>shall</i> provide connectivity between and among the systems and locations identified in Table 52.
NWReq005	The OC ABI System network <i>shall</i> be able to handle the protocols used by the non-OC ABI System components (e.g., Cal-DOJ network interface).

5.10. Qualification Requirements

5.10.1. Verification Methods

This section establishes requirements for formal verification of the design and performance requirements set forth in Section III of this specification.

The specified methods of verification are inspection, analysis, demonstration, test and productive combinations of these methods. These methodologies are defined below:

Inspection: Verification by inspection will show through visual means that specified requirements have been met (e.g., examine a RAID disk drive and read the capacity from the label). For software, inspection includes physical examination of documentation, a listing of program code, or both to verify conformance to specified requirements.

Analysis: Analysis will verify the item meets specified requirements by technical evaluation of representative data (e.g., calculating availability using a model).

Demonstration: Demonstration will verify the item meets specified requirements by operational use in a scenario (e.g., scanning a latent image and generating an LFFS transaction).

Test: Test will verify the item meets specified requirements by searching a controlled set of known test data through a system and documenting and analyzing the results (e.g., running “lights-out” latents through a system to determine the accuracy rate).

5.10.2. Verification Conditions

Verification Conditions are specific conditions under which the requirement will be verified. For testing of Accuracy and Response Time requirements, the following conditions will be set.

The converted repositories (known and unknown friction ridge files as well as related feature sets, pointers, and tables) will be audited as part of the central site technology Factory Acceptance Test (FAT). Accuracy tests will employ these repositories, while the search records will be data sets prepared by OCCL Cal-ID and having known image quality (tenprint only), minutiae count (latents and their mates only) and mate or no-mate status information. FAT will include two accuracy tests: one with minimal intervention (known as lights out) and one with expert intervention following the vendor's recommended best practices. There will be appropriate levels of performance required for each of these two accuracy tests.

Table 54 shows the anticipated parameters for accuracy matching, with examiner assistance limited to orientation of latent images and marking the boundary (a.k.a. the region of interest) of the latent image area to be searched. This is referred to as Lights Out accuracy testing.

Table 54 Lights Out Accuracy Verification Conditions

Field	TP-TP	TP-LT	LT-TP	KP ⁸ -PLT	PLT-KP
Search Records	10,000	10,000 ⁹	200	5,000	100
Mated Records	50%	100	100	10	40
NFIQ Average of Mated TPs	3.1 or better	3.1 or better	3.1 or better	N/A	N/A
Minimum Number of Simultaneous Minutiae of Mated Items	N/A	12	12	14	14
Selectivity ¹⁰	1	1/5	1/5	1/5	1/5
True Match Rate ¹¹	99.8%	70% / 80%	70% / 80%	70% / 80%	70% / 80%
Non-Mated Search Records	50%	9,900	100	4,990	60
Background Repository	All converted TP records	All converted LT records	All converted TP records	All converted Palm LT records	All converted KP records

⁸ The abbreviation KP stands for Known Palm.

⁹ These transactions will be cascaded from the 10,000 TP-TP searches.

¹⁰ Selectivity is a measure of allowed candidate list length.

¹¹ Assumes a true mate is in the searched file.

SOW Appendix A: Contract Deliverable Requirements List

Identifier	Deliverable Title	Delivery Dates
OC-01	Project Management Plan	Draft within 30 days after Contract Award. Final within 30 days after OCCL comments.
OC-02	Risk and Issue Management Plan	Draft within 30 days after Contract Award. Final within 30 days after OCCL comments. To be updated as risk and issue status changes.
OC-03	Requirements Verification Traceability Matrix	Draft 10 working days prior to SDR, with updates at the meeting, and Final as attachment to SDR meeting OC-07. [One softcopy and ten hardcopies of draft and final] Updates with FAT and SAT Test Procedures.
OC-04	Integrated Master Schedule	Preliminary Draft prior to Contract Award and monthly as an attachment to CDRL OC-08.
OC-05	Meeting Agendas	Draft 5 working days prior to the meeting.
OC-06	Presentation Materials	Draft 5 working days prior to a meeting, with updates at the meeting, and Final as part of OC-07.
OC-07	Meeting Minutes	Draft 2 working days after the meeting, with Final 5 working days after receipt of OCCL comments.
OC-08	Monthly Status Report	Draft 5 working days prior to each monthly PMR, with Final attached to each PMR OC-07.
OC-09	In-Plant Security Plan	Draft within 30 days after Contract Award. Final within 30 days after OCCL comments. To be updated if CJIS Security Plan changes impact the as approved version.
OC-10	Configuration Management Plan	Draft within 30 days after Contract Award. Final within 30 days after OCCL comments. Draft 30 days prior to Contract Completion [One softcopy and five hardcopies of each document] Software and licenses 30 days prior to ORR to permit recipients to be trained. Training – during the 30-day pre-ORR window.
OC-11	Quality Assurance Plan	Draft within 30 days after Contract Award. Final within 30 days after OCCL comments.
OC-12	Specification Change Requests	At any time, with an explanation, any cost or schedule impact considerations, and a statement of the driving need.

		For those submitted for SRR approval, at any time up to 5 working days prior to SRR and Final after written approval by OCCL. [One softcopy and one signed hardcopy]
OC-13	Test and Evaluation Master Plan	Draft within 30 days after Contract Award. Final within 30 days after OCCL comments.
OC-14	Test Plan (FAT)	Draft 10 working days prior to FAT TRR, with updates at the meeting, and Final as attachment to meeting OC-07.
OC-15	Test Procedures (FAT)	Draft 40 working days prior to FAT TRR with the Final 10 days prior to FAT TRR. [One softcopy and ten hardcopies of draft and final]
OC-16	Test Report (FAT)	At PSR [One softcopy and ten hardcopies]
OC-17	Test Plan (SAT)	Draft 5 working days prior to SAT TRR, with updates at the meeting, and Final as attachment to meeting OC-07. Updates 10 days after FAT based on any lessons learned in the execution of FAT.
OC-18	Test Procedures (SAT)	Draft 40 working days prior to SAT TRR with the Final at ORR. [One softcopy and ten hardcopies at PSR]
OC-19	Test Report (SAT)	At ORR [One softcopy and ten hardcopies]
OC-20	OC ABI System Design Specification	Draft 10 working days prior to SDR, with updates at the meeting, and Final as attachment to SDR meeting OC-07. [One softcopy and ten hardcopies of draft and final]
OC-21	Bill of Materials	Preliminary Draft prior to Contract Award. Updates 10 working days prior to SDR and at PSR. Final at SAR. Updates as necessary due to supplier changes in availability, model numbers, etc. Includes executables and licenses for commercial software products, and source code for developed software not part of a commercial software product.
OC-22	Installation Survey Report	Draft 10 working days prior to SDR, with update as an attachment to SDR meeting OC-07, and Final at PSR.
OC-23	Version Description Document	Draft 5 working days prior to FAT, with updates at the meeting, and Final as attachment to ORR meeting OC-07.
OC-24	Installation Plan	Draft 10 working days prior to SDR, with update as an attachment to SDR meeting OC-07, and Final at PSR. Incremental updates between SDR and PSR as BOM or other relevant documents are updated.

OC-25	Installation Drawings	Draft 10 working days prior to SDR, with update as an attachment to SDR meeting OC-07, and Final at PSR. If network upgrades are required prior to installation, then the Contractor will work with the OCCL to plan such early Installations Drawings and a separate PSR.
OC-26	User Manuals	Draft 45 working days prior to FAT TRR, with update 5 days prior to FAT TRR and again as an attachment to PSR meeting OC-07, and Final at ORR. [One softcopy. One hardcopy for each trainee]
OC-27	Training Plan	Draft 60 working days prior to PSR, with update as an attachment to PSR meeting OC-07, and Final at ORR.
OC-28	Training Materials	Draft 45 working days prior to FAT TRR, with update 5 days prior to FAT TRR and again as an attachment to PSR meeting OC-07, and Final at ORR. [One softcopy. One hardcopy for each trainee]
OC-29	Database Migration Report	Draft 30 days after start of migration and monthly updates through ORR.
OC-30	Transition Plan	Draft 30 days prior to SDR, with updates at the meeting, and Final 30 days after SDR meeting. Updates as appropriate based on lessons learned during FAT or based on BOM updates.
OC-31	Interface Requirements Specification	Draft 10 working days prior to SRR, with updates at the meeting, and Final as attachment to SRR meeting OC-07. Updates as appropriate based on lessons learned during FAT or based on BOM updates.
OC-32	Interface Design Documents	Draft 10 working days prior to SDR, with updates at the meeting, and Final as attachment to SDR meeting OC-07. Updates as appropriate based on lessons learned during FAT or based on BOM updates.
OC-33	Trouble Ticket Status Report	Draft of format within 30 days after Contract Award. Final 30 days after OCCL feedback on Draft format. Copy with each OC-08 Monthly Status Report.
OC-34	Sustainment Plan	Draft with proposal. Updates 10 working days prior to SDR and at PSR. Final at SAR.

SOW Appendix B: Data Migration Procedures

The migration of the data from the existing OCSJ criminal justice environment to the new OC ABI system and related operational environment will be performed in seven separate but related activities:

1. Capturing digital known records from the existing OC ABI System, to include friction ridge images, text data, mug photo images, and records not associated with an OCN, such as SRE's, ERRT's, Applicant records, and tactical searches.
2. Capturing digital unknown records from the existing OC ABI System, to include image, minutiae, and text data
3. Quality assessment of captured records
4. Cross checking migrated records to determine any previously unidentified matches
5. Loading converted records into the new OC ABI System archive prior to the Factory Acceptance Test
6. Loading appropriate records into the matchers prior to FAT
7. Preparing and delivering the database migration report (CDRL OC-29)

The period of performance of the data migration tasks **shall** be from the System Design Review approval through the UAT. The tasks will be considered complete when all digital data has been migrated to the new OC ABI System. It is anticipated that transactions will be processed on the existing ABI System right up through the first two weeks of the User Acceptance Test.

B-1 Conversion of Known Records

The known records will consist of a mixture of tenprint and palmprint data sets and records with no friction ridge data. All data will be digital, having previously been converted from paper forms, migrated from other digital sources, or captured directly from livescan since 2014

There are approximately 6.6 million of these record types:

- 1) Electronic livescan and Tenprint card conversion transactions that are fully ANSI/NIST conformant with Type-1, 2, 4/14, and possibly Type-15 records.
- 2) Some Legacy transactions may also contain Type-7 and Type-10 records to be retained within the NIST records.

For the multiple types of tenprint, identified above, there may be multiple instances of the same arrest event/transaction. Some differences include:

- 1) Type-1 and Type-2, image capture ppi and Type-15 may be different.
- 2) Some records will contain 500 rather than 1000 ppi captured images
- 3) Some will and will not contain the Type-2 arrest information
- 4) Some will and will not contain palms for the same booking event
- 5) Some electronic transactions will contain copies of the original card in the Type-20 or even Type-7, they should be saved as Type-20 records.

The Contractor **shall** perform an OCN based 1:1 fingerprint match on all ingested transactions to verify tenprint records match the already loaded tenprint cards by matching on all available fingers (up to 20).

When record-to-associated fingerprint record match discrepancies are encountered, the Contractor **shall** provide a list of mismatches for OCCL resolution and **shall** use the OCNs assigned by OCCL during resolution.

The Contractor **shall** retain all booking numbers in updating the MCI index per Scope of Work BisRule002 updating the OC ABI System tenprint and palmprint repository per Scope of Work BisRule003 and adding to the ANSI/NIST Archive per Scope of Work BisRule007.

Note 1: The “correct” Cal-ID OCN and the TCN/BKN will be found in the migrated/conversion filenames. The type 2 OCN (2.112) in Legacy AFIS and other archive files may be different and should not be used as a reliable source.

Note 2: Some of the tenprint records will contain palms, therefore the palms are to be loaded into the palm matchers and stored in the ANSI/NIST archive during the tenprint load process.

Note 3: There are approximately 729,000 records with non-standard OCNs that may require OCCL resolution prior to assigning a standard OCN. Contractor **shall** flag these records and work with OCCL to develop automated scripts for assigning standard OCNs if possible. The non-standard OCN scenarios include:

- ~69,075 Begins with “PT”
- ~31,479 Begins with “MT”
- ~419,000 Begins with station number “18” or “180”
- ~208,000 Begins with zero

The current OC ABI System contains digital livescan and previously converted palm image sets available for the majority of arrest cycles since early 2006. These image sets are stored in the current ABI system at their original 1,000 ppi capture rate and in the CalDOJ extraction files at 500 ppi.

B-2 Conversion of Unknown Records

The unknown records consist of both finger and palm latent impressions. There are approximately 20,000 latent records in the current OC ABI System and the OCCL Laboratory Information Management System (LIMS) and some of them are in “.tiff” files. The number of latents to be converted is subject to change prior to contract award and during the development phase of the project.

The Contractor **shall** process all unsolved finger and palm latent images and generate ANSI/NIST compliant LFFS Transactions with images, where each transaction is to contain the appropriate Type-1, 2, 9, 13 and 20 records.

The Contractor **shall** create the Type-9 feature sets encoded using – at a minimum – EFS Profile-3¹² (with a goal of also extracting Profiles 10 and 11) either by auto-extracting the features or by converting the corresponding existing feature sets.

¹² Complete details for each of the EFS Profile Codes are contained in the Extended Feature Set Profile

Specification, which is available at <https://www.nist.gov/publications/extended-feature-set-profile-specification>

The Contractor **shall** reference the related legacy file by including the corresponding ID number, case number and lift number in the new LFFS transaction.

B-3 Quality Assessment

The Contractor **shall** perform Quality Control on all palms ingested.

The Contractor **shall** place QC errors in the report for OCCL resolution.

For all ANSI/NIST transactions ingested, the Contractor **shall** use the NIST Fingerprint Image Quality (NFIQ) software to quality rate each finger and save the data for a report at the end of the data conversion. If the Contractor elects to use a proprietary image quality metric in their matching system, the Contractor **shall** calculate that score for each finger and palm and store it in the Type-14 record as Field 14.024 or Type-15 record as Field 15.024 per Scope of Work BisRule013.

For all ANSI/NIST transactions ingested into the OC ABI System, the Contractor **shall** perform at a minimum the following Quality Control (QC) processes and apply Scope of Work BisRule013:

- a. Sequence/duplicate checks (rolls to rolls, rolls to plain, etc).
- b. Image center checks
- c. Empty/missing images without a valid annotation

The Contractor **shall** place records that contain QC sequence errors, at a minimum, in a work queue for OCCL review and reconciliation. The Contractor **shall** not use these records to search or update the OC ABI System production matchers until reconciled by OCCL.

For any records where QC results in any image correction, the Contractor **shall** generate an additional modified submission and **shall** store the original and the modified record in the Archive per Scope of Work BisRule007. The Contractor **shall** use the modified record as the “final” record, to load the OC ABI System matchers per Scope of Work BisRule003.

B-4 Crosschecking Records

The Contractor **shall** search the unknown records against the known tenprint and palm files (LT-TP and LT-KP) and against one another (LT-LT); all strong candidates **shall** be documented for OCCL latent examiners to review after the system goes operational.

The Contractor **shall** perform Tenprint to Tenprint 1:1 and 1:n searches (TP-TP) cross-searches against all other loaded tenprints to identify auto-matched records with disparate OCNs. In this TP:TP cross search, the Contractor **shall** utilize a minimum of four settable auto match and auto no-match thresholds.

- When an OCN based 1:1 candidate comparison achieves a certain level of matcher score, [Threshold 1] the System can declare an auto match known as a “lights out” match.
- When the 1:n matcher score is above a settable auto-match score [Threshold 2] the System can declare an “auto match” on one or more OCNs.
- A separate 1:n search no-match threshold [Threshold 3] below which all 1:n scores are indicative of a “no match” will also be used.
- A separate OCN based 1:1 search threshold [Threshold 4] below which all 1:1 scores are indicative of a “no match” will also be used.

The Contractor **shall** perform OCN 1:1 fingerprint match to verify tenprint and palmprints records biometrically belong to the already loaded tenprint cards by matching on all available fingers.

When record-to-associated-fingerprint-record discrepancies are encountered, the Contractor **shall** provide a list of mismatches.

The Contractor **shall** perform Latent-to-Latent cross searches against the Unsolved Latent file (LT-LT).

The Contractor **shall** perform Latent searches against the tenprint and palmprint records to find any previously unmatched records that are strong candidates.

B-5 Loading Archive

As part of the data migration task, the Contractor **shall** load all successfully processed records and files into the OC ABI Archive following the appropriate Scope of Work Business Rules.

The Contractor **shall** retain any conversion source flags that will differentiate the source files for the multiple occurrences of the same TCN/BKN, where all instances **shall** be retained in the ANSI/NIST Archive, other than exact duplicates from the same source file.

The Contractor **shall** convert and load the Master Cross Index (MCI) of all known subjects' attributes, including:

- TCN – Transaction Control Number
- OCN – Orange County Number, the unique subject identifier
- BKN – Booking Number, the unique event identifier
- ORI – Originating Agency Identifier
- DOE – Date of Entry, date original electronic record was created (not used for card conversion date)
- DOA – Date of Arrest
- SEX – subject gender
- DOB – Date of Birth
- NAM – Name: First, Middle, Last, Suffix

B-6 Loading the Matchers

The Contractor **shall** load the unsolved latent file into the matchers in accordance with the Business Rules in the OC ABI System Scope of Work.

When loading the migrated latents into the matchers it **shall** be done in compliance the OC ABI System Scope of Work BisRule002, BisRule003, and BisRule007.

The known tenprint file and known palmprint file **shall** be loaded into the matchers for testing and operational use, with pointers to the appropriate TCN, OCN, CII, and FBI numbers within the ANSI/NIST Archive and MCI index.

Sealed, deleted, applicant, and tactical records will not be loaded into the matchers.

B-7 Preparation of Database Migration Report

The Contractor ***shall*** document all activities during the migration effort in a Database Migration Report (CDRL OC-29) to include their status (i.e., performed successfully or with errors).

SOW Appendix C: Glossary of Terms

TERM	DEFINITION
ABI System	Automated Biometric Identification System
AFIS	Automated Fingerprint Identification System
AMN	Amnesia Victim TOT
ANSI	American National Standards Institute - a governing body for US national standards
ANSI Standard	Shorthand for the American National Standard for Information Systems - Data Format for the Standard for the Interchange of Fingerprint Information, Facial, and Other Biometric Information - Part 1
ANSI/NIST	A standard developed by NIST's Information Technology Lab (ITL) using the ANSI procedures and registered with ANSI
APP	CalDOJ (q.v.) Applicant Tenprint Transaction
CalDOJ	California Department of Justice
Cal-ID	California Identification Unit - usually in reference to the local OCCL tenprint operational unit, but can also refer to CalDOJ's tenprint operations
CDRL	Contract Deliverable Requirements List
CEMS	Cal-ID Electronic Management System
CHP	California Highway Patrol
CII	Criminal Identification Index
CJIS	Criminal Justice Information Services
CLETS	California Law Enforcement Telecommunications Network
CM	Configuration Management
CMP	Configuration Management Plan
Composite	A Feature Set made up with the features from the highest quality images from a subject's fingers or palms when there is more than one set of fingerprints or palmprints for a subject
COTS	Commercial-Off-the-Shelf
CPM	Contractor Project Manager
CPU	Central Processing Unit
CRM	CalDOJ Criminal Tenprint - Response Required
DAI	Destination Agency Identifier
DHS	Department of Homeland Security
DOA	Date of Arrest
DOB	Date of Birth
DOE	Date of Entry
Domain	A group of agencies and departments that agree to share fingerprint-based Transactions using an agreed upon implementation of the ANSI/NIST Standard: Data Format for the Interchange of Fingerprint, Facial & Other Biometric Information. In this case, the Domain is the North American domain (1.013:NORAM)
DVI	Disaster Victim Identification

EBTS	Electronic Biometric Transmission Specification - adopted by a Domain as their implementation of the ANSI/NIST Standard for the Interchange of Fingerprint Images, commonly referred to as the FBI's implementation of the standard.
EFS	Extended Feature Set - a vendor-neutral set of descriptors used for latent encoding and searching across dissimilar AFIS Systems
FAT	Factory Acceptance Test
FBI	Federal Bureau of Investigation
FIQ	Fingerprint Image Quality
FMR	False Match Rate - the probability that an incorrect false mate can be identified as an automated true mate regardless if the true mate is or is not in the background reference file (also known as a repository)
FP	Fingerprint
FTMR	Failure to Match Rate - the probability that a search will not return a true mate when the true mate is in the reference file. The failure to match rate is 100% minus the True Match Rate for closed systems (i.e., where the true mate is in the reference file). While not explicitly stated in the requirements, it will be calculated during testing and reported on
ICE	U.S. Immigration and Customs Enforcement
ID	Identification
IDN	CalDOJ Tenprint Identification only
IMS	Integrated Master Schedule
IRQ	Image Request
Known	A friction ridge sample purposefully collected from a body. As opposed to a sample from unknown source
KP	Known Palmprint
KP-PLT	Known Palmprint searched against the Unsolved Latent Palmprints
KST	Known and Suspected Terrorists
LAN	Local Area Network
LARS	Local Arrest Records System
LCMS	Latent Case Management System
LIMS	Laboratory Information Management System
LITS	Latent Interoperability Transmission Specification
LT	Latent
LT-LT	Latent to Latent Search: Single Latent searched against the Unsolved Latent File
LT-TP	Latent to Known Tenprint Search: Single Latent searched against the Tenprint Repository
MCI	Master Cross Index
NCIC	National Crime Information Center – an FBI Data System
NGI	Next Generation Identification System - the FBI's multi-modal replacement for IAFIS
NIST	National Institute of Standards and Technology - part of the US Department of Commerce
OC	Orange County
OCATS	Orange County Automated Telecommunications System

OCCL	Orange County Crime Laboratory
OCN	Orange County Number
OCSD	Orange County Sheriff-Coroner Department
ORI	Originating Agency Identification
ORR	Operational Readiness Review
PD	Police Department
PLT-PLT	A search of Unsolved Latent Palmprints against Unsolved Latent Palmprints
PMP	Project Management Plan
PMR	Project Management Review
PP	Processing Parameters
PSR	Pre-Ship Review
QA	Quality Assurance
QC	Quality Control
record	(lower case) referring to a record in a file, such as archive, matchers, logs, etc.
Record	(Capitalized) referring to an ANSI/NIST record,
REG	CalDOJ Violent Criminal Tenprint Registration
RISC	Repository of Individuals of Special Concern – an FBI automated biometric identification system file
RMA	Reliability, Maintainability, and Availability
RMP	Risk Management Plan
RVTM	Requirements Verification Traceability Matrix
SAP	Subject Acquisition Profile
SAR	System Acceptance Review
SAT	System Acceptance Test
SDR	System Design Review
SDS	System Design Specification
SEL	Selectivity - the number of candidates that WILL be examined to determine the true match rate
SID	State Identification Number
SOW	Scope of Work
SRR	System Requirements Review
TAR	True Accept Rate
TB	Terabytes
TBD	To Be Determined
TCN	Transaction Control Number
TCR	Transaction Control Reference
TEMP	Test and Evaluation Master Plan
TIM	Technical Interchange Meeting
TMR	True Match Rate - the probability that a true match will be found when it is in the background reference file (also known as a repository). This term replaces older terminology such as matcher reliability or true accept rate
TOT	Type of Transaction

TP	Tenprint
TPIS	Tenprint Image Search - this is a lights-out search that accepts less than ten fingers, no QC or operator verification intervention
TP-LT	Tenprint to Unsolved Latent File search
TP-TP	Tenprint to Tenprint 1:N search
Transaction	Referring to an electronic submitted set of ANSI/NIST Records that is processed on some system, e.g. in reference to the specific purpose, such as an applicant transaction or an arrest transaction.
Transmission	Referring to the sending of a transaction from one system to another, such as the electronic submittal of a transaction from a live scan device to the ABI System.
TRR	Test Readiness Review
UAT	User Acceptance Test
ULW	Universal Latent Workstation - interactive and interoperable software released by the FBI for fingerprint searches of the FBI systems
Unknown	A friction ridge sample collected from an object that is the result of an unknown person's contact with that object
UPS	Uninterruptable Power Supplies
USL	Unsolved Latent Repository – a file within an automated biometric identification system

Scope of Work Appendix D: Livescans by Location

The number of livescans by Agency is presented below to permit communications analysis to include recommendations for the number of network interface cards and location of network drops at each location.

Agency	# of Live Scans	Daily Throughput	Peak Hourly Throughput
Aliso Viejo	2	3	1
Brea PD	1	3	2
Buena Park PD	1	8	2
Cal-ID	5	1	1
OCCL Cal-ID Civil Prints	3	7	2
Coroner Bureau	2	8	2
Costa Mesa PD	1	15	3
Cal State University Fullerton PD	1	1	1
Cypress PD	1	1	1
Fountain Valley PD	2	2	1
Fullerton PD	1	9	3
Garden Grove PD	2	9	3
Huntington Beach PD	2	16	3
OCSD Jail: Intake Release Center (IRC)	5	120	29
Irvine PD	2	8	2
Juvenile Hall	1	3	1
Laguna Beach PD	1	3	1
La Habra PD	1	10	2
La Palma PD	1	1	1
Los Alamitos PD	1	1	1
Newport Beach PD	2	7	2
Orange PD	2	2	1
Placentia PD	1	4	1
Probation	1	1	1
Santa Ana PD	2	8	2
Saddleback	1	2	1
Seal Beach PD	1	1	1
OCSD Jail: Theo Lacy Facility (TLF)	3	4	1
Tustin PD	1	3	1
University of California Irvine PD	1	1	1
Westminster PD	1	8	2
Total	52	290	

ATTACHMENT B - PAYMENT AND COMPENSATION

1. Compensation:

This is a firm fixed fee Contract between County and Contractor for Automated Biometric System (ABI System) and Sustainment as set forth in Attachment A, "Scope of Work".

Contractor agrees to accept the specified compensation as set forth in this Contract as full payment for performing all services and furnishing all staffing and materials required, for any reasonably unforeseen difficulties which may arise or be encountered in the execution of the services until acceptance, for risks connected with the services, and for performance by Contractor of all its duties and obligations hereunder. Contractor shall only be compensated as set forth herein for work performed in accordance with the Scope of Work. **County shall have no obligation to pay any sum in excess of the fixed rates specified herein unless authorized by amendment in accordance with Articles "Changes" and "Amendments" of County Contract Terms and Conditions, which may require approval by the County Board of Supervisors.**

2. Fees and Charges: County will pay the following fees in accordance with the provisions of this Contract. Payment shall be as follows:

I. Payment Milestones:

The OC ABI Contract price consists of a development phase price (Contract Award through successful completion of System Acceptance Review (SAR) and a Sustainment Phase Price (post SAR).

The Development Phase is comprised of four (4) Payment Milestones.

- Upon successful completion of Milestone 1, the Contractor will be paid 20 percent (20%) of the Development Phase Price.
- Upon successful completion of Milestone 2, the Contractor will be paid an additional 30 percent (30%) of the Development Phase Price.
- Upon successful completion of Milestone 3, the Contractor will be paid an additional 30 percent (30%) of the Development Phase Price.
- Upon successful completion of Milestone 4, the Contractor will be paid the remaining Development Phase Price.

"Successful completion" of a Payment Milestone requires written acceptance by the OCCL of all Contract Deliverable Requirements. List (CDRL) items associated with the Milestone Review and deliverables that are due at any time prior to that review. The Payment Milestones are defined as follows:

- A. Payment Milestone 1 – Successful completion of the System Design Review (SDR): **\$782,533.00**

- B. Payment Milestone 2 – Successful Completion of the Pre-Ship Review (PSR):
\$1,173,800.00
- C. Payment Milestone 3 – Successful Completion of the Site Acceptance Testing (SAT): **\$1,173,800.00**
- D. Payment Milestone 4 – Successful Completion of the System Acceptance Review (SAR): **\$782,533.00**

II. Annual Sustainment

The Sustainment Phase (i.e. maintenance period) shall begin upon completion of the warranty period and continue through the initial contract period and any executed renewals and shall include Evergreen upgrade and support which includes annual diagnostic review, backend solution component replacement (as needed), new feature trials, and CJIS-compliant backend hardware hosting. Annual maintenance fee shall be inclusive of all annual charges, e.g. license fees, web service fees, cloud hosting fees, subscription fees, etc.

- Annual sustainment Phase Year 1: **\$702,601.69**

\$58,550.14 per month

- Annual sustainment Phase Year 2: **\$723,263.08**

\$60,271.92 per month

- Annual sustainment Phase Year 3: **\$744,144.31**

\$62,012.03 per month

- Annual sustainment Phase Year 4: **\$3,392,398.11**

\$282,699.84 per month

Including one Evergreen upgrade during contract period. First level point release (5.x to 6.x - GUIs, Throughput, Security, Algorithms) and System Refresh - matcher subsystem upgrade, data migration, PM services

- Annual sustainment Phase Year 5: **\$774,926.19**

\$64,577.18 per month

Renewal – Optional Annual Sustainment for Years 6 through Year 10

- Year 6 - \$800,681.82
- Year 7 - \$800,681.82
- Year 8 - \$800,681.82
- Year 9 - \$800,681.82
- Year 10 - \$800,681.82

3. Firm Discount and Pricing Structure:

Contractor guarantees that prices quoted are equal to or less than prices quoted to any other local, State or Federal government entity for services of equal or lesser scope. Contractor agrees that no price increases shall be passed along to County during the term of this Contract not otherwise specified and provided for within this Contract.

4. Contractor's Expense:

Contractor will be responsible for all costs related to photo copying, telephone communications and fax communications while on County sites during the performance of work and services under this Contract.

5. Payment Terms – Payment as follows:

Invoices are to be submitted in arrears upon completion of milestones as stated in Section I. Payment Milestones and monthly in advance for the Sustainment Phase to the user agency/department to the ship-to address, unless otherwise directed in this Contract. Contractor shall reference Contract number on invoice. Payment will be net thirty (30) days after receipt of an invoice in a format acceptable to County of Orange and verified and approved by the agency/department and subject to routine processing requirements. The responsibility for providing an acceptable invoice rests with Contractor.

Billing shall cover services and/or goods not previously invoiced. Contractor shall reimburse County of Orange for any monies paid to Contractor for goods or services not provided or when goods or services do not meet Contract requirements.

Payments made by the County shall not preclude the right of the County from thereafter disputing any items or services involved or billed under this Contract and shall not be construed as acceptance of any part of the goods or services.

6. Payment – Invoicing Instructions:

Payment – Invoicing Instructions: The Contractor will provide an invoice on the Contractor's letterhead for goods delivered and/or services rendered. In the case of goods, the Contractor will leave an invoice with each delivery. Each invoice will have a number and will include the following information:

- a. Contractor's name and address
- b. Contractor's remittance address, if different from "A" above
- c. Name of County Agency/Department
- d. Delivery/Service address
- e. MA-060-26011342
- f. Date of order
- g. Product/Service description, quantity, and prices
- h. Sales tax, if applicable
- i. Freight/Delivery Charges, if applicable
- j. Total

Invoices and support documentation are to be forwarded to:

Sheriff-Coroner
Attn: Accounts Payable

320 N. Flower St., 5th Floor
Santa Ana, CA 92703
Email: occlpurchasing@ocsheriff.gov

7. Payment (Electronic Funds Transfer (EFT)):

County of Orange offers contractors the option of receiving payment directly to their bank account via an Electronic Fund Transfer (EFT) process in lieu of a check payment. Payment made via EFT will also receive an Electronic Remittance Advice with the payment details via e-mail. An e-mail address will need to be provided to The County of Orange via an EFT Authorization Form. To request a form, please contact the agency/department Procurement Buyer listed in Contract. Upon completion of the form, please mail, fax or email to the address or phone listed on the form.