



DEPARTMENT OF
BUDGET & MANAGEMENT

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Amendment #11
to
REQUEST FOR PROPOSALS (RFP)

DPSCS INMATE MEDICAL HEALTH CARE AND UTILIZATION SERVICES

SOLICITATION NUMBER DPSCS Q0012013

MARCH 2, 2012

Ladies and Gentlemen:

This Addendum is being issued to amend and clarify certain information contained in the above named RFP. All information contained herein is binding on all Offerors who respond to this RFP. Specific parts of the RFP have been amended. The following changes/additions are listed below; new language has been double underlined and marked in red bold (ex. **new language**) and language deleted has been marked with a strikeout (ex. ~~language deleted~~).

1. Revise Section 3.2 (**General Provisions and Other Requirements**) to **add** Section **3.2.17**, as follows:

3.2.17 The Contractor shall at all times perform under the Contract in full compliance with the requirements of State and DPSCS guidelines concerning the security of DPSCS information technology (IT) hardware, software, mid-ware, systems, databases, etc. State IT security guidelines can be found on the website <http://doit.maryland.gov/policies/Pages/default.aspx>. The DPSCS Information Technology & Communications Division (ITCD) Security Policy and Criminal Justice Information Services (CJIS) Security Policy are included in the RFP as Attachment JJ and Attachment KK, respectively.

2. Revise the first paragraph of Section 3.6.1.2 (**Contractor Staffing and Management**), as follows:

3.6.1.2 **Except as described in § 3.6.1.3 for nursing positions for infirmaries and sick call and § 3.6.1.4 for certain telemedicine implementation, the Contractor shall maintain a minimum 96% Fill Rate for each of the Physician, PA, CRNP, RN, LPN and Phlebotomist clinical positions listed in Attachment R in accordance with its current DPSCS approved staffing plan. The 96% Fill Rate will be calculated by SDA Statewide and ~~the~~ **by clinical position** (e.g. Physician, PA, CRNP, RN, **LPN and Phlebotomist** ~~etc.~~) based on the total number of hours provided per month versus the aggregate number of hours contained in the current staffing plan. As described in §1.33**

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and Attachment V, Liquidated Damages will be assessed for the failure to maintain a 96% staffing level for any or all clinical positions (Physician, PA, CRNP, RN, LPN and Phlebotomist) listed in the DPSCS approved staffing plan Attachment R, both Department-wide, and, if applicable, by SDA Statewide. i.e., even if the Contractor achieves a 96% staffing level Department wide for a given month for a given position, if less than a 96% staffing level is obtained in that same month in any SDA Statewide Liquidated Damages will be assessed.

NOTE: The remaining paragraphs are unchanged.

3. Delete the first paragraph of Section 3.6.1.3 and Section 3.6.1.3.1 (**Contractor Staffing and Management**), as follows:

~~3.6.1.3 Nursing positions (RN/LPN) for infirmaries and sick call must be staffed at all times in accordance with the Contractor's current DPSCS approved staffing plan, regardless of vacancies or absences.~~

3.6.1.3 If a Clinician vacancy exists for more than 30 days and the Contractor fails to engage per diem personnel, the DPSCS Contract Manager may engage per diem personnel and charge back the Contractor for such cost(s) until such time that the position is filled. As outlined in § 3.10.3.1.3, training for non-permanent employees (See § 1.2.115), including Per Diem personnel (See § 3.6.1.3), of the Contractor or subcontractor(s) is not required that have not previously received any formal orientation instruction must have a minimum of 30 minutes of basic orientation.

~~3.6.1.3.1 In lieu of the possible implementation of liquidated damages due to the Contractor failing to achieve the 96% staffing level as described in § 3.6.1.2, liquidated damages will apply for any nursing shift for infirmaries and sick call that is not staffed as per the Contractor's staffing matrix. (See Attachment V, line 1)~~

4. Revise Section 3.6 (**Contractor Staffing and Management**) to **add** Section **3.6.5** and all subsections, as follows:

3.6.5 Although it is recognized by DPSCS that the recruitment and retention of qualified staff helps the Contractor fulfill its obligations under the Contract, DPSCS and Inmates also benefit from the stability of the Contractor's workforce. Accordingly, the Contractor should take all reasonable actions to minimize both the number and duration of Staff vacancies. To this end the Contractor should try to hold annual Staff turnover to less than 20% (See § 4.4 Tab D, #1.8[A]).

3.6.5.1 Among the important means to achieve a stable workforce is the payment of adequate salaries and wages, along with attractive employee benefits. To help assure the adequacy of wages, salaries and benefits, in § 4.4 Tab D, #1.6[E] and § 4.4 Tab D, #1.8, Offerors' are to identify minimum Staff payment rates (wages and salaries) and other means of recruiting and retaining Staff, which shall include the benefits available to its personnel. The payment rates and benefits listed in response to § 4.4 Tab D, #1.6[E] and § 4.4 Tab D, #1.8 will be among the factors evaluated among Offerors to help determine the Offeror selected for Contract award. However, in no instance may the minimum payment rate to Staff be less than permitted under the State's Living Wage law as described in § 1.29 and Attachment M.

3.6.5.2 No more than 30 days after the Go Live Date (See § 1.4.3) of the Contract the Contractor shall submit an affidavit to the DPSCS Contract Manager certifying that the wages and salaries being paid to all Staff are at least the level of the payment rates per position contained in its response to § 4.4 Tab D, #1.6[E] and § 4.4 Tab D, #1.8. In addition, also no more than 30 days after the Go Live Date, the Contractor shall submit to the DPSCS Contract Manager signed statements from no less than 10% of its Staff in each different type of employed position (e.g. CNA, RN, LPN, Physician, clerks, etc.), including subcontractor Staff, that the Staff are receiving at least the payment rate for his/her position as was contained in the Contractor's response to § 4.4 Tab D, #1.6[E] and § 4.4 Tab D, #1.8. In instances when there are fewer than ten Staff occupying a given position, a signed statement shall be submitted for at least one person occupying that position.

3.6.5.2.1 These signed statements shall identify the:

- Name Of The Person Making The Statement;
- Position Title Occupied By This Person;
- Person's Assigned Work Location;
- Minimum Payment Rate For The Position As Per The Response To § 4.4 Tab D, #1.6[E] and § 4.4 Tab D, #1.8;
- Signature Of The Person; And
- Date of the signature, which cannot be earlier than the Go Live Date, nor later then 30 days after the Go Live Date.

3.6.5.3 No more than 30 days after the start of the 2nd, 3rd, 4th and 5th Contract years the same affidavit for all Staff and certifications of at least 10% of Staff as described in § 3.6.5.2 shall be submitted to the DPSCS Contract Manager. Each Contract year the submitted Staff certifications shall be from different persons than have been submitted previously, unless there are too few persons occupying a given position for this to occur, in which case the

certification may be submitted from a person who has previously submitted one.

3.6.5.4 If it is determined that any Contractor staff are receiving less than the payment rate contained in the Contractor’s response to § 4.4 Tab D, #1.6[E] and § 4.4 Tab D, #1.8, the Contractor must immediately adjust the payment rate for such Staff to the rate contained in the Contractor’s response to § 4.4 Tab D, #1.6[E] and § 4.4 Tab D, #1.8, and make restitution to each such Staff for the difference between the person’s actual payment rate and the rate contained in the Contractor’s response to § 4.4 Tab D, #1.6[E] and § 4.4 Tab D, #1.8, plus 5% of this difference as a liquidated damage.

5. Revise Section 3.7 (Contractor Higher Level Staff Hiring Process) to **add** Section **3.7.1.2**, as follows:

3.7.1.2 As per § 3.6.3.1, any person offered as the Statewide Nursing Director must have at least a Master’s Degree. Any person offered as a regional nursing director must have at least a Bachelor’s Degree. However, individuals meeting these required educational levels still may not be accepted for a given offered position.

6. Revise Section 3.23.2 (Dispensary Services), as follows:

3.23.2 No less than 10 days prior to each month, the Contractor shall electronically provide a set monthly schedule of the times and locations of sick call and chronic care services for each SDA to the DPSCS Contract Manager **and ACOM** in the form and format as required. Any changes to these schedules involving Custody require pre-approval by the DPSCS Medical Director or DPSCS DON. This report is identified on Attachment AA-1 as Monthly ~~Dispensary Services~~ **Clinic** Schedule.

Additionally, the Contractor shall electronically provide an Annual Dispensary Services Schedule for Contract year to date. This report is identified on Attachment AA-1 as Annual ~~Dispensary Services~~ **Clinic** Schedule.

7. Revise Section 3.29.1 (Medication), as follows:

3.29.1 **If so directed by the DPSCS Manager/Director,** ~~the~~ Final medication continuation plan submitted in response to 4.4 Tab D § 1.17 **pertaining to the requirements of §3.29.1.1** shall be formalized as the **Contractor’s** ~~Contractors’~~ medication continuation plan.

- 3.29.1.1 In compliance with the requirements of § 3.41.3.3.1 concerning release planning for Inmates with chronic medical conditions who require the continuation of medications in the community, if directed by the DPSCS Manager/Director the ~~The Contractor shall implement a process for utilizing written prescriptions upon award~~ as of the Go Live Date (See § 1.4.3 1.4.2 or later date contained in a NTP) of the Contract that:
- a. Acknowledges the responsibility of the Contractor to provide prescription pads to its licensed, prescribing Clinicians;
 - b. Meets all requirements of law for prescribing practices including contact information;
 - c. Prevents unnecessary calls from pharmacies to clarify the prescription order; ~~and~~
 - d. Establishes a centralized phone number for prescriber related pharmacy questions only that ~~can~~ must be included on ~~the~~ each written prescription; and
 - e. Maintains a log by facility of the number of prescriptions written and the number of community pharmacy inquiries regarding prescriptions.

8. Revise Section 3.41.3.3 (Transfer and Release) and add Section 3.41.3.3.1, as follows:

3.41.3.3 The Contractor shall provide Inmates who have chronic medical conditions being released to the community either: (a) a total 30-day supply of each current chronic care medication, consistent with the Department policy regarding discharge medications; or (b), if a discharge/release planner has identified a community resource and obtained a confirmed appointment with an appropriate community healthcare provider, medication to continue treatment until the appointment, as well as a prescription for continued medication for a minimum of 30 days, with the following exceptions:

- (1). Inmates taking drugs as Tuberculosis therapy, ~~who~~ shall be referred directly to their local health department for continuation of medications;
- (2). Inmates taking certain psychotropic or other medications which, if taken in sufficient quantity, could cause harm, unless so specifically ordered by the treating Clinician; and
- (3). Inmates whose total treatment course for their condition will be less than 30 days following release, in which case only the amount of medication necessary to complete the prescribed treatment cycle shall be dispensed.

3.41.3.3.1 Upon receipt of a NTP from the DPSCS Manager/Director, the Contractor shall initiate a program to provide a prescription for continued medication for a maximum of 30 days, with no refills.

9. Revise Sections 3.58.2, 3.58.2.1 and 3.58.2.3(**Risk Management Program**) and delete Section 3.58.2.2, as follows:

3.58.2 ~~3.58.2~~ Serious Incident Reports

3.58.2.1 All incidents/accidents/errors listed below shall be reported to the DPSCS Director of Nursing within 24 hours of the occurrence on the DPSCS Security Incident Report (SIR) form which includes such information as the incident or event, the date it occurred, how it was discovered, and any outcomes as a result of that event (good and/or bad). Incident reports shall not be considered as punitive or threatening and shall be used for education and CQI purposes. The current version of the form is accessible on the DPSCS website.

Reportable incidents/accidents/errors include but are not limited to:

- (1). Unexpected or unexplainable deaths,
- (2). All suicides, successful or attempted,
- (3). Assaults on Contractor staff,
- (4). Inmate assaults requiring medical treatment,
- (5). Post “use of force” examinations,
- (6). Emergency Responses necessary to maintain or resuscitate life, including 911 Events.
- (7). Injuries occurring as a part of work accidents, such as, but not limited to needle sticks, staff falls, etc.
- (8). Exposures to infectious diseases,
- (9). Prophylaxis administration,
- (10). Security Breaches (e.g. lost keys, missing sharps or medications, contraband, etc.)
- (11). Treatment/medication errors or missed treatments, missing documentation, and
- (12). Visitor/Custody employee/Vendor employee injuries while on DPSCS properties.

If directed by the ACOM or DPSCS Director of Nursing, within 10 days of the submission of the SIR, the Contractor shall submit a Corrective Action Plan concerning prevention of re-occurrence.

~~3.58.2.2~~ ~~On a monthly basis, the Contractor shall submit to the DPSCS Director of Nursing a Serious Incident Report Summary (SIRS) of all serious incidents/ accidents/errors occurring or discovered by its staff during the preceding month. This monthly SIRS shall be itemized to include the total number of each reportable event listed in § 3.58.2.1.~~

~~This report identified in Attachment AA-1 as Monthly Serious Incident Report Summary (SIRS) shall be submitted to the Department DON as part of the Contractor's regional monthly multi-Contractor CQI meetings reports in the form and format as required by the Department DON.~~

3.58.2.3

The Contractor shall submit a quarterly report ~~SIRS~~ **Incident Report Summary (as part of Quarterly Risk Management Report identified below)** to the DPSCS Director of Nursing of all ~~serious~~ incidents/ accidents/ errors occurring or discovered by its staff during the preceding three months. ~~Reports will include the incident or event, the date it occurred, how it was discovered, any outcomes as a result of that event (good and/or bad), and what is being done to prevent re-occurrence. Incident reports shall not be considered as punitive or threatening and shall be used for education and CQI purposes. Included with this quarterly SIRS Incident Report Summary shall be all SIR forms submitted as required by § 3.58.2.1 during the preceding three months.~~ Monthly narratives, summations of audit findings or verbal reports will not be acceptable in lieu of a formal quarterly report. ~~Identified in Attachment AA-1 as Quarterly Risk Management Report.~~

~~Reportable events include but are not limited to:~~

- ~~(13). Unexpected or unexplainable deaths,~~
- ~~(14). All suicides successful or attempted,~~
- ~~(15). Assaults on Contractor staff,~~
- ~~(16). Inmate assaults requiring medical treatment,~~
- ~~(17). Post "use of force" examinations,~~
- ~~(18). Emergency Responses necessary to maintain or resuscitate life,~~
- ~~(19). Injuries occurring as a part of work accidents, such as, but not limited to medication error, needle sticks, missing documentation, staff falls, etc.~~
- ~~(20). Exposures to infectious diseases,~~
- ~~(21). Prophylaxis administration,~~
- ~~(22). Security Breaches (e.g. lost keys, missing sharps or medications, contraband, etc.)~~

This report **identified in Attachment AA-1 as Quarterly Risk Management Report (to include the Incident Report Summary and all IR forms)** shall be submitted to the Department DON as part of the Contractor's regional ~~monthly and~~ quarterly multi-Contractor CQI meetings reports in the form and format as required by the Department DON. ~~Identified in Attachment AA-1 as Risk Management Report.~~

Risk management includes providing emergency medical care to State employees when a HIV exposure occurs at the workplace, to include first aid, education, referrals, and offering the first dose of prophylactic medication.

10. Revise Section 3.67.3.1.3.1 (Electronic Health Records (EHR)), as follows:

- 3.67.3.1.3.1 The Contractor shall provide, at a minimum, two (2) full-time IT System Analysts trained in NextGen **to work full-time on-site at a** ~~located within 25 miles of~~ DPSCS **location in the Baltimore area, probably at or nearby to the**

Headquarters on Reisterstown Road to act as leads for all EHR-related system issues, including but not limited to:

NOTE: The remainder of the section is unchanged.

11. Revise Section 4.4 Tab D (Volume I – Technical Proposal / Offeror Technical Response To RFP Requirements) #1.6[E] and #1.8, as follows:

1.6 Propose staffing for the Department that is sufficient for the complete delivery of all services required under this RFP.

A. The Department has identified the ~~current~~ **recommended** clinical **and non-clinical** staffing plan for the Department in Attachment R. While it is the opinion of the Department that this ~~clinical~~ **Attachment R suggested** staffing plan is appropriate to perform the scope of work outlined in this RFP, the Offeror may propose a different clinical **and/or non-clinical** staffing plan. **Caveats:**

(1) Certified Medical Assistants (CMAs) may not be proposed to work under this contract;

(2) An offeror may not fail to include any position that is specifically required within Section 3 of the RFP, most if not all of which are identified under Specialist Staffing Requirements in the Contract Compliance Checklist (Attachment CC); e.g. Discharge/Release Planning Nurses;

(3) Although not noted anywhere in the current Attachment R, Offerors are encouraged to include CNAs (Certified Nursing Assistants) and GNAs (Geriatric Nursing Assistants) in infirmaries to use staffing most efficiently and effectively.

B. If a clinical **or non-clinical** staffing plan is submitted that varies from the Department recommendation **in Attachment R**, the Offeror should **submit a chart formatted in the same manner as Attachment R detailing its proposed clinical and non-clinical staffing plan, and** explain the rationale for the variation and how the variation will affect the delivery of services.

C. In response to RFP § 3.6.1, the Offeror shall provide this clinical **and non-clinical** staffing plan using the same titles, location, and format as provided in Attachment R.

D. The clinical **and non-clinical** staffing plan shall be broken-down by SDA and shift.

- E. In addition to the clinical staffing plan the Offeror shall also identify all other (non-clinical) personnel to be employed under this Contract, either on-site at a Department location or elsewhere. The submitted non-clinical staffing plan must include all positions identified in the Special Positions portion of the Contract Compliance Checklist (CCC), Attachment CC, plus any other management or other positions. For any position not specified in the CCC, the position description and, **as required by § 3.6.5, the minimum** hourly pay rate shall be included, and it shall be described whether the position will primarily or exclusively work at a specific work-site, and/or shift, or whether the position will have a Department wide focus. **In no instance may the minimum payment rate to Staff be less than permitted under the State's Living Wage law as described in §1.29 and Attachment M.**
 - F. In response to RFP § 3.6.3, the Offeror shall describe the management structure it will utilize upon award, and provide an organization chart that illustrates this management structure.
 - G. The staffing pattern provided in response to this RFP by an Offeror shall be considered as a final obligation for staffing upon award of the Contract, except as noted in § 3.6.1, and a representation that such staffing is sufficient to meet all obligations under this RFP and the Department's Manual of Policies and Procedures.
 - H. The Offeror shall submit a staff skills and qualifications matrix in its own format to summarize relevant experience for the proposed staff, including any subcontractor staff. Offeror and subcontractor staff experience shall be presented in two separate matrices.
- 1.8 Provide a written plan of active and ongoing recruitment and retention of personnel at all levels, including, **as required by § 3.6.5, the minimum** hourly rate expected to be paid by position as entered in **the staffing plan chart required in § 4.4 Tab D 1.6 B that shall be prepared in the same format as** Attachment R, any incentives provided for this purpose and any other strategies for recruitment and retention (Sections 3.6 & 3.7).
- A. Staff payment rates, **employee benefits**, incentives and any and all other means for recruitment and retention of qualified Staff shall be undertaken by the Offeror to achieve a less than 20% annual composite Staff turnover rate.
 - B. Acknowledge the Department's role in the hiring process of Higher Level Staff. (See § 3.7)
 - C. In no instance may the minimum payment rate to Staff described above in §4.4, Tab D, #1.8 be less than permitted under the State's Living Wage law, as described in §1.29 and Attachment M.**

12. Revise Section 4.4 Tab D (Volume I – Technical Proposal / Offeror Technical Response To RFP Requirements) #1.17[C and D], as follows:

1.17 Describe how the Offeror will handle all aspects of the administration of medications, to include:

- A. Ensuring that it will prescribe medications as medically necessary and appropriate
- B. Storing and administering medications in its possession in compliance with relevant Regulatory Boards, DHMH, DEA, CDS and any other State and federal guidelines, and will ensure that all local, State and federal regulations regarding the dispensing of medications are followed.
- C. Describing its plan to ensure that Inmates receive **discharge** medications as prescribed by Clinicians without missing doses and without interruption. See Medication methodology and medication line locations (Attachment O).
- D. In response to RFP § 3.29 **1.1 and § 3.41.3.3.1**, proposing a process for medication continuation utilizing written prescriptions to be implemented **if directed by the DPSCS Manager/Director** ~~upon award of the contract.~~

13. Replace Attachment V Liquidated Damages (to remove the reference to § 3.6.1.3) with the attached version.

14. Replace Attachment AA-1 Reports with the attached version.

15. Replace the Specialist Staffing Requirements (pages 23 and 24) in Attachment CC Contract Compliance Checklist with the attached version

16. Revise the RFP to include a new Attachment JJ DPSCS Information Technology & Communications Division (ITCD) Security Policy and Attachment KK Criminal Justice Information Services (CJIS) Security Policy.

Date Issued: **MARCH 2, 2012**

By: <signed>
Andrea R. Lockett
Procurement Officer

Enclosures:

- Attachment V Liquidated Damages
- Attachment AA-1 Reports
- Attachment CC Contract Compliance Checklist
- Attachment JJ DPSCS Information Technology & Communications Division (ITCD)
Security Policy
- Attachment KK Criminal Justice Information Services (CJIS) Security Policy

**Attachment V DPSCS Inmate Medical Health Care and Utilization Services
Liquidated Damages**

	Ref	Liquidated Damages Description	MIN Threshold % (if applicable)	Liquidated Damages Amount	Performance Standard
1	3.6.1.2 3.6.1.3	Provides clinical staffing, Specialist Staffing and any other positions identified in the Contractor's staffing plan in accordance with submitted staffing matrix @ rates for appropriate positions in Attachment R, CCC and proposal.	100%	Rate calculated on hourly rate per clinical positions.	An occurrence is total number of hours for each position that does not meet the 96% minimum fill rate per position per SDA.
<u>1 (a)</u>	<u>3.6.1.2</u>	<u>Provides clinical staffing (Physician, PA, CRNP, RN, LPN and Phlebotomist) in accordance with its current DPSCS approved staffing plan.</u> <u>[Except as described in § 3.6.1.3 for nursing positions for infirmaries and sick call]</u>	<u>96%</u>	<u>Rate calculated on hourly rate per clinical positions.</u>	<u>An occurrence is total number of hours for each position that does not meet the 96% minimum fill rate per position Statewide per SDA.</u>
1 (b)	3.6.1.3	Provide Nursing positions (RN/LPN) for infirmaries and sick call at all times in accordance with its current DPSCS approved staffing plan.	100%	Rate calculated on hourly rate x 1.5 per nursing position.	An occurrence is total number of hours for each position that does not meet the 100% fill rate per position.
2	3.8 3.9	Contractor maintains Credential Files	99%	\$100 for each missing credentialing information item required for each employee past or present below minimum threshold	An occurrence is each missing credentialing information item required for each employee past or present not submitted to the agency.
3	3.10.1.2	Contractor shall develop and maintain a comprehensive competency based orientation program for new staff.		\$250 for each employee that has not completed a documented orientation.	An occurrence represents any staff that does not receive a pre-service orientation. The orientation shall include a review of the Policies and Procedures manual of the Agency, the Policies and Procedures manual of the Provider, how to access those manuals, EHR training basics of working in a prison setting and a review of the limits of the scope of responsibility based on competency.
4	3.17	Contractor provides Emergency Care		\$500 per incident that emergency care is not adequately provided	An occurrence is each individual 911 event that does not follow the first aid and emergency procedures related to emergency triage to a community based hospital or infirmary as referenced in § 3.17, § 3.22.3 and § 3.32.2.
5	3.18	Contractor provides On-call Physician List		\$100 per month that on call list is not updated or posted as required	An occurrence is each time an on call list is not updated or posted as required in the infirmary, dispensary and sick call areas.

**Attachment V DPSCS Inmate Medical Health Care and Utilization Services
Liquidated Damages**

	Ref	Liquidated Damages Description	MIN Threshold % (if applicable)	Liquidated Damages Amount	Performance Standard
6	3.21.5	Contractor provides Equipment Inventory Reporting as required		\$100 per day annual inventory report is greater than 15 days past due date AND \$25 for each equipment item not affixed with State tag number.	An occurrence is each day past the Annual Inventory Report due date + each equipment item without a State tag number as referenced in § 3.21.5.5(6). Liquidated damages will NOT be assessed against the Contractor for a missing piece of equipment that is the responsibility of one of the Other Healthcare Contractor. Liquidated damages will be assessed each day greater than 15 days past the due date.
7	3.21.5.4 3.21.5.5	Provide Equipment Maintenance Database and Report	98%	\$25 for any element missing below 98% in the database and report	An occurrence is any element missing in the database and report.
8	3.24.3	Each inmate admitted to the infirmary, shall only be admitted upon physician order which may be performed telephonically.	100%	\$100 for each admission without a documented order.	An occurrence is when any inmate assessment is not performed, thus no documentation in EHR.
9	3.24.3	Each Inmate in the infirmary shall receive an Assessment within 24 hours of Admission, which shall include a History, physical, and Treatment Plan documented in the EHR.		\$100 for each history and physical on admission not documented in EHR.	An occurrence is any admission history and physical not documented in EHR within 24 hours.
10	3.24.3	Infirmary and isolation unit rounds shall be made daily (1x/day) by the Clinician and documented in the EHR. Nursing rounds shall be performed per shift (3x/day) and evidence of such shall be documented in the EHR.		\$50 for each round not made daily by Clinician and documented + \$50 for Nursing round not made per shift and documented.	An occurrence is any time daily rounds are not conducted and documented and Nursing rounds not conducted per shift and documented.
11	3.25.8 3.25.10.1	An intake screening, to include a hearing test, of any newly admitted Inmate to any DPSCS institution conducted utilizing the IMMS form within two hours of entry into a facility.	within 10 minutes of 2-hr timeframe (i.e. 2 hours and 10 minutes)	\$50 for each occurrence beyond 2-hr 10-min timeframe	An occurrence represents any timeframe beyond the 2-hr and 10-minute allowance.
12	3.25.8 3.25.10.1	An intake screening, to include a hearing test, of any newly admitted Inmate to any DPSCS institution conducted utilizing the IMMS form and the completion of all form questions within two hours of entry into a facility.		\$50 per question for each question missed in IMMS.	A question represents any question with a missing component of the receiving process missed in IMMS.

**Attachment V DPSCS Inmate Medical Health Care and Utilization Services
Liquidated Damages**

	Ref	Liquidated Damages Description	MIN Threshold % (if applicable)	Liquidated Damages Amount	Performance Standard
13	3.26	Conduct a complete medical health examination on all inmates, including parole violators and escapees within 7-days of reception. Provide medical intake evaluations every day.	98%	\$50 for each occurrence of a medical health exam not completed below 98% threshold.	Any occurrence represents any failure to perform.
14	3.26.2.3	Offer either blood or oral testing (with blood confirmation) and provide counseling and education.	98%	\$50 per occurrence below 98% threshold.	An occurrence is any detainee/inmate that does not have documentation of HIV testing being offered and counseling being completed within the required timeframe.
15	3.27	Each inmate with sufficient period of incarceration shall receive physical re-evaluations during his or her period of incarceration.	95%	\$50 for each occurrence exam not completed within 10 days of schedule requirements below 95% threshold.	An occurrence is any physical re-exams not completed on inmates once every 4 years (under 50); or if over 50 years of age once per year. Liquidated damages will be assessed <u>again</u> each month that the requirement is not performed, provided the Department has notified the Contractor of the omission or lack of performance.
16	3.27.1.3	An inmate shall be tested (screened) for TB annually whether or not scheduled for physical re-examination.	100%	\$100 per annual PPD not provided to patient as required.	Annual PPDs must be completed on all inmates and detainees as required. Liquidated damages will be assessed <u>again</u> each month that the requirement is not performed, provided the Department has notified the Contractor of the omission or lack of performance.
17	3.27.1.4	Inmates shall be re-informed of his or her opportunity for HIV testing at every physical re-examination.	95%	\$50 for each occurrence re-education not completed within 10 days of schedule requirements below 95% threshold.	An occurrence is any re-educations not completed on inmates at every physical re-examination. Liquidated damages will be assessed <u>again</u> each month that the requirement is not performed, provided the Department has notified the Contractor of the omission or lack of performance.
18	3.28.4.2	Each sick call clinic shall continue operation on that day until it is completed; i.e. no "backlogs".	95%	\$25 per patient scheduled but not seen in daily sick call below 95% threshold.	An occurrence is when an inmate scheduled for a clinic session is not seen.
19	3.28.4.2	Each sick call clinic shall continue operation on that day until it is completed; i.e. no "backlogs". Same day referrals from triage (emergent complaints) shall be seen during a clinic session on the same day that the Inmate appears for services.	100%	\$50 per triage patient not seen in daily sick call.	An occurrence is when same day referrals from triage (emergent complaints) not seen during a clinic session on the same day that the inmate appears for services.

**Attachment V DPSCS Inmate Medical Health Care and Utilization Services
Liquidated Damages**

	Ref	Liquidated Damages Description	MIN Threshold % (if applicable)	Liquidated Damages Amount	Performance Standard
20	3.29.2	Contractor maintains Medication Security	100% (narcotic) 95% (other than narcotic)	\$100 for each occurrence of medication not secured appropriately.	An occurrence is any incidence of medication not secured appropriately.
21	3.29.2 (4)	Perform scanning of all medications ordered and shipped	100%	\$100 for each order and shipment not scanned	An occurrence is each medical medication order (including STAT orders) and shipment not scanned.
22	3.29.3.1	Contractor maintains electronic Medication Administration Record (e-MAR)	95%	\$200 for each e-MAR that is not completed below 95% threshold.	An occurrence is an individual dose not received within 2 hours after receipt; or an individual e-MAR not documented.
23	3.30.1.5	Shall follow national guidelines for disease/condition specific organizations in the development of treatment programs	95%	\$250 for each deviation from established treatment programs below 95% threshold.	An occurrence is a deviation from established treatment programs.
24	3.30.3	Perform monthly chart review by a RN or Clinician for chronic care patients.	95%	\$100 for each occurrence per audited patient record that was not provided in accordance with the OIHS Clinical Care Manuals below 95% threshold.	An occurrence is when a chronic care patient does not receive a chart review by a RN or Clinician every month.
25	3.30.3	Chronic care patients shall be seen by a Clinician every ninety days at a minimum.	95%	\$250 for each occurrence per audited patient record that was not provided in accordance with the OIHS Clinical Care Manuals below 95% threshold.	An occurrence is where a chronic care patients are not seen by a Clinician every 90 days.
26	3.39.2.2	Make available appropriate prenatal care, specialized obstetrical services twice weekly and postpartum care for pregnant inmates.	100%	\$250 per element not performed as required in the OIHS Pregnancy Management Manual	An element is non-performance as required in the OIHS Pregnancy Management Manual.
27	3.41.2.1	The transfer form designated by the Agency and contained within the EMR, shall be completed by the Clinician within twelve (12) hours of having been notified of transfer or release.	90%	\$50 for each medical transfer assessment form not submitted below 90% threshold.	An occurrence represents an incomplete or absent transfer assessment form in EHR.

**Attachment V DPSCS Inmate Medical Health Care and Utilization Services
Liquidated Damages**

	Ref	Liquidated Damages Description	MIN Threshold % (if applicable)	Liquidated Damages Amount	Performance Standard
28	3.41.3	Utilize a Continuity of Care Form (hardcopy) consistent with Department Policy and Procedure in conjunction with Inmate release	95%	\$250 for each occurrence a Continuity of Care Form is not complete in the discharge planning process below 95% threshold.	An occurrence represents a Continuity of Care Form not being complete in the discharge planning process.
29	3.49	Operate a comprehensive infection control program that ensures that communicable diseases are appropriately diagnosed, treated, and controlled to prevent and minimize infectious disease outbreaks.	100%	\$150 for each occurrence of failure to document diagnosis/treatment of an infectious disease	An occurrence represents any failure to document the diagnosis of an Infectious Disease as well as providing the necessary treatment.
30	3.50	Contractor addresses Administrative Remedy Procedures (ARPs) & ARP Appeals timely & completely	99%	\$50 for each ARP that is not completed by due date below 99% threshold. + \$25 per day each ARP is past the due date below 99% threshold.	An occurrence is each ARP not submitted by the due date.
31	3.55.1	Implement the CQI program	100%	\$100 per occurrence	An occurrence represents a failure to conduct required CQI meetings as outlined in § 3.55.2.
32	3.57.1	Performs Safety & Sanitation inspections	100%	\$1,000 per each inspection not performed + \$100 per each report not submitted within 30 days as required.	An occurrence is any inspection not performed and any report not submitted within 30 days as required.
33	3.59	Performs Morbidity and Mortality (M&M) reviews of adverse patient outcomes	100%	\$125 for each M&M review not performed + \$125 per each report not submitted	An occurrence when the Morbidity & Mortality (M&M) review is not completed within the 72 hours timeframe and the M&M report of Multi-disciplinary input is not submitted within 10 business days.
34	3.65	Provide Methadone maintenance according to Federal & State mandates.	100%	\$1000 per incident that required Methadone licensure is not in place.	An occurrence is any incident whereby License is not maintained as current and available for inspection.

**Attachment V DPSCS Inmate Medical Health Care and Utilization Services
Liquidated Damages**

	Ref	Liquidated Damages Description	MIN Threshold % (if applicable)	Liquidated Damages Amount	Performance Standard
35	3.65.1.1	Maintain the methadone program currently in place at any approved DPSCS facility for: (1) Utilization in the detoxification / withdrawal of any Inmate experiencing withdrawal from opiates when prescribed by a physician; or (2) Maintenance on methadone of Inmates arrested at a time where the Inmate is enrolled and participating in a bona fide methadone program in the community.	100%	\$250 for each occurrence of non-compliance with Methadone program.	An occurrence is any incident of non-compliance with Methadone program.
36	3.67	Maintain a complete EHR	95%	\$50 per occurrence of non-completion of patient record in EHR below 95% threshold.	An occurrence is every instance of failure to document patient records properly in EHR.
37	3.70.1.1 3.70.1.2	Provides complete UM report	98%	\$25 per each missing element below 98% threshold.	An element represents any item described in § 3.70.1.1 and § 3.70.1.2.
38	Attachment AA-1 (Reports)	Submission of all reports, excluding those itemized in this Attachment V.	99%	\$25 for each day beyond the due date for each report below 99% threshold.	An occurrence represents any report not submitted as required.
39	Attachment AA-2 (Meetings)	Contractor Participation in Meetings as assigned	99%	\$50 per meeting that required representation is not present below 99% threshold.	An occurrence is any instance where the required attendance of a contractor does not report as required.
40	Attachment Q	Submit State Stats Reports in accordance with Attachment Q.	100%	\$100 each day past due date	An occurrence is each day past the due date.

**Attachment V DPSCS Inmate Medical Health Care and Utilization Services
Liquidated Damages**

	Ref	Liquidated Damages Description	MIN Threshold % (if applicable)	Liquidated Damages Amount	Performance Standard
<u>41</u>	<u>1.36</u>	<u>Contractor shall not prevent any of its staff below the Statewide manangement level from working for a successor contractor by invoking a non-compete clause.</u>	<u>100%</u>	<u>The equivalent of three month's salary for each Staff position that is offered employment by a successor contractor but that declines such employment because a non-compete provision it has signed with the Contractor is being invoked by the Contractor. The means to calculate the amount of damages for each position so affected is to take the hourly rate for that position as contained in the Contractor's Attachment R contained in its final technical proposal times 540 hours. (180 hours to obtain a monthly damages amount, times 3 months = 540 hours)</u>	<u>An occurrence is any time current Staff of the Contractor below the statewide management level declines an offer of employment because a non-compete clause it signed with the Contractor is being invoked and it is verified to the satisfaction of the DPSCS Contract Manager that this rationale is accurate.</u>

Amendment #11, AtchAA-1: Reports

** Submit Mthly/Qtrly reports by the 10th of the following month or quarter (as appropriate) if that day is a weekday; if not the next available business day.*

<u>RFP Section</u>	<u>Report</u>	<u>Submission Timeframe</u>	<u>Evidence Received/Approved By DPSCS Personnel:</u>
<u>3.58.2.1</u>	<u>Security-Incident Report (SIR)</u>	<u>within 24 hours of occurrence</u>	<u>Director of Nursing</u>
3.20.2	Meeting Agenda	at least 10 days prior to each meeting	<u>Contract Manager/Director</u>
3.20 3.55.2(3)(v)	Meeting Minutes	within five (5) days of the meeting	<u>Contract Manager/Director</u>
3.21.5.6.1	Initial Physical Inventory Report	within 20 days after current contract's expiration date	Contract Manager
3.69.3.1	Initial Utilization Report	within 60 days after contract commencement	Contract Manager
3.69.2.1	Utilization Management Report	Weekly [non pre-certified admissions only]	<u>Management Associate Contract Manager/Director</u>
3.23.2	<u>Monthly Dispensary Services-Clinic Schedule</u>	Monthly	Contract Manager <u>ACOM</u>
3.26.2.1.4 3.26.2.3.4	Infectious Disease Report	Monthly	Medical Director Director of Nursing
<u>3.3.1.1.1</u>	<u>Clinical Position (required hours) versus the Actual Clinical Position (provided hours)</u>	<u>last day of following Month</u>	<u>Contract Manager</u>
3.27.2	Periodic Physical Exam Report	by the 3rd Monday of the following month for the exams due the previous month	Contract Manager Medical Director Director of Nursing
3.26.1.1	Seven (7) Day Exam Report	Monthly	Contract Manager
3.28.5	Sick Call Log	Monthly	Director of Nursing ACOM
3.59.5 3.63.2	Continuous Quality Improvement (CQI) Report ~ Mortality Review Report ~ Serious Incident Report	Monthly	Director of Nursing SDA Multidisciplinary CQI Committee
3.30.1.2	Chronic Care Clinic Attendance <u>and Enrollee</u> Report	Monthly	Contract Manager <u>Management Associate</u> Director of Nursing
<u>3.30.1.3</u>	<u>Glaucoma and Diabetic-Retinopathy Conditions-Monitoring Report</u>	<u>Monthly</u>	<u>Director of Nursing</u>
3.30.3 3.73.1.4.3.1	Chronic Care Report	Monthly	Medical Director Director of Nursing

*** Submit all Semi-Annual / Annual reports by the last day of the month following the end of year if that day is a weekday; if not the next available business day.*

Amendment #11, AtchAA-1: Reports

* Submit Mthly/Qtrly reports by the 10th of the following month or quarter (as appropriate) if that day is a weekday; if not the next available business day.

<u>RFP Section</u>	<u>Report</u>	<u>Submission Timeframe</u>	<u>Evidence Received/Approved By DPSCS Personnel:</u>
<u>3.42.7</u> <u>3.42.8</u>	<u>Lab Tracking Report</u>	<u>Monthly</u>	ACOM <u>Management Associate</u> <u>Medical Director</u>
<u>3.49.1.1</u>	<u>Reportable Positive Test Results</u>	<u>Monthly</u>	<u>Contract Manager</u> <u>Medical Director</u> <u>Director of Nursing</u>
3.49.3.1 3.57.1.2	Safety and Sanitation Report	Monthly	Director of Nursing ACOM
3.49.3.4 3.49.3.8	Infectious Disease Report	Monthly	Medical Director Director of Nursing
3.69.1.2.3.2	Medicaid Assistance Eligibility Collection Status Report	Monthly	Contract Manager
3.73.1.6(5)	Administrative Remedy Procedure (ARP) Report	Monthly	Medical Director
3.21.3 3.69.2.1 3.69.4.2 3.70.1 3.70.1.1 3.70.1.2	Utilization Management Report	Monthly	Contract Manager Medical Director
<u>3.49.2.5</u>	<u>Service Delivery Area (SDA) Continuous Quality Improvement (CQI) Report</u>	<u>Monthly</u>	<u>Contract Manager</u> <u>Medical Director</u> <u>Director of Nursing</u>
3.49.3.1.2	Infectious Disease Surveillance Report (MRSA & Hepatitis)	Monthly	Director of Nursing
<u>3.56.1</u>	<u>Peer Review Report</u>	<u>Monthly</u>	<u>Medical Director</u>
3.58.2.2	Serious Incident Report-Summary (SIRS)	Monthly	Director of Nursing
3.65.1.6.1	Inmate Count in Methadone Program (upon Admission)	Monthly	Medical Director Director of Nursing
<u>3.69.1.2.3</u>	<u>Reimbursement / Direct Payments Summary Report</u>	<u>Monthly</u>	<u>Contract Manager</u>
3.73.1.2	State Stat Report	Monthly	Contract Manager or designee
3.73.1.2	Prime Contractor Paid/Unpaid MBE Invoice Report	Monthly	Contract Manager
3.72.3.1 3.59.5 3.63.2	Continuous Quality Improvement (CQI) Report ~ Mortality Review Report ~ Serious Incident Report	Quarterly	Management Associate for the Department Medical Director Director of Nursing SDA Multidisciplinary CQI Committee

** Submit all Semi-Annual / Annual reports by the last day of the month following the end of year if that day is a weekday; if not the next available business day.

Amendment #11, AtchAA-1: Reports

** Submit Mthly/Qtrly reports by the 10th of the following month or quarter (as appropriate) if that day is a weekday; if not the next available business day.*

<u>RFP Section</u>	<u>Report</u>	<u>Submission Timeframe</u>	<u>Evidence Received/Approved By DPSCS Personnel:</u>
3.58.2.3	Risk Management Report <u>~ Incident Report Summary</u>	Quarterly	Director of Nursing
3.32.2.5	Security Serious Incident- Report (SIR)	Quarterly	Contract Manager ACOM
3.49.2	Infectious Disease Report	Quarterly	Contract Manager Medical Director Director of Nursing
3.58.2.3	Serious Incident Report- Summary (SIRS)	Quarterly	Director of Nursing
3.21.3	Semi-Annual Durable Medical Equipment Report	Bi-Semi-Annually <u>by January 15th and July 15th</u> <u>of each calendar year</u> by the 15th of January every- other year	Contract Manager
3.73.1.5	Peer Review Report	Bi-Semi-Annually by the 10th of January <u>and July</u> <u>of each year</u> every other year	Medical Director
3.21.5.6.2	Annual Physical Inventory Report	Annually within last thirty (30) days of each contract year; due no later than June 1 st of each year	Contract Manager
3.23.2	Dispensary Services Clinic Schedule	Annually by the 10th of January every year	Contract Manager
3.70.1.3	Annual Utilization Management Report	by July 30th for each contract year, including the final year of the contract	Medical Director
3.49.4.2	Annual In-Service Training Calendar	within thirty (30) days after the commencement of the contract and each subsequent contract year	Director of Nursing
3.51.4	"Man Down" Drill Report [Per Facility Per Year]	within thirty (30) days of the activity each contract year	Contract Manager
3.21.5.6.3	Final Physical Inventory Report	within 20 days of the end of the Contract	Contract Manager
3.77.2.1.1	Outstanding Third Party Reimbursement Requests Report	5 days prior to end of the Contract	Contract Manager

*** Submit all **Semi-Annual** / Annual reports by the last day of the month following the end of year if that day is a weekday; if not the next available business day.*

Amendment #11 - Attachment CC - Contract Compliance Checklist

May not be all-inclusive of contract requirements

Specialist Staffing Requirements

Section	Contractor Activity	Time Frame	Completion Evidence	Evidence Received/Approved By:
3.41.4	Discharge Coordinator [1]	full-time	Review/Acceptance of Staffing Plan	Contract Manager Medical Director Director of Nursing
3.41.4.1	Discharge planning nurses [minimum of 7] 1-Hagerstown SDA, 1-Cumberland SDA, 1-Eastern SDA, 1-Baltimore Pre-Trial, 1-Baltimore DOC, 2-Jessup SDA	full-time	Review/Acceptance of Staffing Plan	Contract Manager Medical Director Director of Nursing
3.65.1.5	Board certified addictions specialist	minimum of 30 hours per week	Review/Acceptance of Staffing Plan	Contract Manager Medical Director Director of Nursing
3.67.3.1.3.1	Full-time IT System Analysts trained in NextGen, located within 25 miles of <u>to work full-time on-site @ DPSCS location in Baltimore area (@ or nearby DPSCS Headquarters on Reisterstown Road)</u> [minimum of 2]	as needed	Review/Acceptance of Staffing Plan	Contract Manager Medical Director Director of Nursing
3.68.1.9	EHR Project Manager [1]	Full time	Review/Acceptance of Staffing Plan	Contract Manager Medical Director Director of Nursing
3.69.1.1	Availability of medical professional 24 hours per day, seven days per week	twenty-four (24) hours per day, seven days per week basis by toll free telephone number	Review/Acceptance of Staffing Plan	Contract Manager Medical Director Director of Nursing
3.69.1.2	Master's level nurse [minimum of 1]	as needed to supervise utilization review and administrative support	Review/Acceptance of Staffing Plan	Contract Manager Medical Director Director of Nursing
3.69.1.2	Utilization Management Medical Director located in Maryland	as needed	Review/Acceptance of Staffing Plan	Contract Manager Medical Director Director of Nursing

Amendment #11 - Attachment CC - Contract Compliance Checklist

May not be all-inclusive of contract requirements

Specialist Staffing Requirements

Section	Contractor Activity	Time Frame	Completion Evidence	Evidence Received/Approved By:
3.69.1.2.1	Fulltime equivalent Bachelor's degreed nurses for Utilization Management support [minimum of 2]	as needed	Review/Acceptance of Staffing Plan	Contract Manager Medical Director Director of Nursing
3.69.1.2.2	Utilization Management Report Coordinator [minimum of 1]	as needed	Review/Acceptance of Staffing Plan	Contract Manager Medical Director Director of Nursing
3.69.1.2.3	Medical Assistance Coordinator [minimum of 1]	as needed	Review/Acceptance of Staffing Plan	Contract Manager Medical Director Director of Nursing

ATTACHMENT JJ

Department of Public Safety & Correctional Services
Information Technology & Communications Division
(ITCD)

Information Security Policy



Version 2.0

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PURPOSE

The purpose of this Policy is to describe a set of minimum security requirements that the Department of Public Safety and Correctional Services (DPSCS) Information Technology & Communications Division (ITCD) must meet in order to protect the confidentiality, integrity and availability of DPSCS owned information. This Policy shall serve as best practice.

SCOPE

This policy applies to all information that is electronically generated, received, stored, printed, filmed, and typed. The provisions of this policy apply to all units under the Department of Public Safety and Correctional Services maintained by the ITCD unless an exception has been previously approved.

AUTHORITY

The Information Technology & Communications Division (ITCD) has the authority to set policy and provide guidance and oversight for the security of all IT systems in accordance with Maryland Code § 3A-303 and § 3A-305.

RECORD OF REVISIONS Date	Revision Description
September, 2008	Version 1.0: 1. Major changes in document presentation and format. 2. More compliant with The Department of Information Technology guidelines
November, 2009	Version 2.0: 1. Revised Appendix A – Computer Security Incident Handling Form 2. Added more information to also comply with changing FBI CJIS security policy changes

SECTION 1: Preface

The Information Technology & Communications Division maintains essential assets for the Department of Public Safety and Correctional Services providing vital resources for the State, Law Enforcement and to Maryland citizens. These assets are critical to the services that the ITCD provides to citizens, businesses, and educational institutions, as well as to local and federal government entities. All information created with DPSCS resources for DPSCS operations is the property of the State of Maryland. All employees and contractors of DPSCS are responsible for protecting information from unauthorized access, modification, disclosure and destruction.

SECTION 2: Roles and Responsibilities

The following policy sets the minimum level of responsibility for the following individuals and/or groups:

- Information Technology & Communications Division;
- Agency;
- Employees and Contractors.

2.0 Information Technology & Communications Division

The duties of the Information Technology & Communications Division are:

- Developing, maintaining, and revising IT policies, procedures, and standards;
- Providing technical assistance, advice, and recommendations to the Secretary and any unit of DPSCS concerning IT matters;
- Developing and maintaining an IT master plan; and
- Adopting by regulation and enforcing non-visual access standards to be used in the procurement of IT services by or on behalf of units of the ITCD

2.1 ITCD Security

Information security is an ITCD responsibility shared by all members of the management team. The management team shall provide clear direction and visible support for security initiatives. The ITCD is also responsible for:

- Implementing and maintaining the ITCD IT Security Program
- Monitoring and enforcing the IT Security Program within ITCD;
- Identifying a role (position/person/title) that is responsible for implementing and maintaining the ITCD security program;
- Managing the ITCD Security Program and initiating measures to assure and demonstrate compliance with security requirements;
- Ensuring that security is part of the information planning and procurement process;
- Implementing an IT Security Certification and Accreditation process for the life cycle of each critical IT System;
- Identifying security vulnerabilities within ITCD systems and recommending corrective action;
- Assessing the adequacy and coordinating the implementation of specific information security controls for new systems or services;
- Assuring the confidentiality, integrity, availability, and accountability of all ITCD information while it is being processed, stored, and/or transmitted electronically, and the security of the resources associated with the processing functions;
- Assuming the lead role in resolving ITCD security and privacy incidents;
- Documenting and ensuring that a process is implemented for the classification of information in accordance with the Policy for Classifying Confidential Information;
- Specifying the level of security required to protect all information assets under their control to comply with this Policy;
- Ensuring a configuration/change management process is used to maintain the security of the IT system;
- Development, implementation and testing of the IT Disaster Recovery Plan for critical ITCD IT Systems in accordance with IT Disaster Recovery Plan Guidelines;
- Ensuring separation of duties and assigning appropriate system permissions and responsibilities for ITCD system users.

Each ITCD unit shall identify system ‘data owners’ (usually business unit managers) that are responsible for:

- Classifying data;
- Approving access and permissions to the data; and
- Determining when to retire or purge the data.

2.2 Employees and Contractors

All ITCD employees and contract personnel are responsible for:

- Being aware of statewide and internal policies and their responsibilities for protecting IT assets of their agency and the State;
- Using IT resources only for intended purposes as defined by policies, laws and regulations of the State or agency; and
- Being accountable for their actions relating to their use of all IT Systems.

SECTION 3: Asset Management

All major information systems assets shall be accounted for and have a named owner. Accountability for assets helps to ensure that appropriate protection is maintained. Owners shall be identified for all major assets and the responsibility for the maintenance of appropriate controls shall be assigned. Responsibility for implementing controls may be delegated. Accountability shall remain with the named owner of the asset.

3.0 Information Classification Policy

This policy provides general requirements for data classification. The classification level definitions emphasize common sense steps to be taken to protect confidential information.

This policy pertains to all information within State of Maryland systems that is processed, stored, or transmitted via any means. This includes: electronic information, information on paper, and information shared orally or visually. Data and record custodians must adhere to this policy and educate users that may have access to confidential information for which they are responsible.

All Maryland State information is categorized into two main classifications with regard to disclosure:

- Public
- Confidential

Public information is information that has been declared publicly available by a Maryland State official with the explicit authority to do so, and can freely be given to anyone without concern for potential impact to the State of Maryland, its employees or citizens.

Confidential describes all other information. It is understood that some information has the potential for greater negative impact if disclosed than other information, and hence requiring greater protection. Maryland State personnel are encouraged to use common sense judgment in applying this policy. If an employee is uncertain of the classification of a particular piece of information, the employee should contact their manager for clarification.

All confidential information should be clearly marked “Confidential” and will be subject to the following handling guidelines.

3.1.1 Guidelines for Marking and Handling State Owned Information

It is necessary to classify information so that every individual that comes in contact with it knows how to properly handle and/or protect it.

Public Information: Information that has no restrictions on disclosure.

- Marking: No marking requirements.
- Access: Unrestricted
- Distribution within Maryland State systems No restrictions.
- Distribution outside of Maryland State systems: No restrictions.
- Storage: Standard operating procedures based on the highest security category of the information recorded on the media. (*Refer to the System Security Categorization Policy in the following section*).
- Disposal/Destruction: Refer to Physical Security section of this document.
- Penalty for deliberate or inadvertent disclosure: Not applicable.

Confidential Information: Non-public information that if disclosed could result in a high negative impact to the State of Maryland, its' employees or citizens and may include information or records deemed as Private, Privileged or Sensitive.

- Marking: Confidential information is to be clearly marked as "Confidential".
- Access: Only those Maryland State employees with explicit need-to-know and other individuals for whom an authorized Maryland State official has determined there is a mission-essential need-to-share and the individual has signed a non-disclosure agreement.
- Distribution within State of Maryland systems; Delivered direct - signature required, envelopes stamped Confidential, or an approved, encrypted electronic email or electronic file transmission method.
- Distribution outside of State of Maryland systems: Delivered direct; signature required; approved private carriers; or approved encrypted electronic email or electronic file transmission method.
- Storage: Physically control access to and securely store information system media, both paper and digital, based on the highest security category of the information recorded on the media. Storage is prohibited on portable devices unless prior written approval from agency Secretary (or delegated authority) has been granted. Approved storage on portable devices must be encrypted. Refer to State IT Security Policy and Standard State Data Encryption Standard. Keep from view by unauthorized individuals; protect against viewing while in use and when unattended, store in locked desks, cabinets, or offices within a physically secured building.
- Disposal/Destruction: Dispose of paper information in specially marked disposal bins on Maryland State premises or shred; electronic media is sanitized or destroyed using an approved method. *Refer to Physical Security section of this document.*

Confidential information is prohibited on portable devices and non-state owned devices unless prior written approval from agency Secretary (or delegated authority) has been granted. Approved storage on any portable or remote access device must be encrypted. The penalty for deliberate or inadvertent disclosure of confidential information can range from administrative actions to adverse personnel actions up to termination of employment. Deliberate, unauthorized disclosure of confidential information may result in civil and/or criminal penalties.

3.2 System Security Categorization Policy

This policy defines common security category levels for information systems providing a framework that promotes effective management and oversight of information security programs. Formulating and documenting the security level of an information system helps to determine the level of effort required for security certification and accreditation.

This policy shall apply to all information systems within the State government. Agency officials shall use the security categorizations described in FIPS Publication 199 (<http://csrc.nist.gov/publications/fips/fips199/FIPS-PUB-199-final.pdf>). Additional security designators may be developed under the framework of FIOS and used at agency discretion.

The security categories are based on potential impact on an agency should certain events occur which jeopardize the information and information systems needed by that agency to accomplish its assigned mission, protect its assets, fulfill its legal responsibilities, maintain its day-to-day functions, and protect individuals. Security categories are to be used in conjunction with vulnerability and threat information in assessing the risk to an agency.

Security Objectives

The Federal Information Security Management Act (FISMA) defines three security objectives for information and information systems:

- **Confidentiality**
 - “Preserving authorized restrictions on information access and disclosure, including means for protecting personal privacy and proprietary information...” [44 U.S.C., Sec. 3542]
 - A loss of *confidentiality* is the unauthorized disclosure of information.
- **Integrity**
 - “Guarding against improper information modification or destruction, and includes ensuring information non-repudiation and authenticity...” [44 U.S.C., Sec. 3542]
 - A loss of *integrity* is the unauthorized modification or destruction of information.
- **Availability**
 - “Ensuring timely and reliable access to and use of information...” [44 U.S.C., SEC. 3542]
 - A loss of *availability* is the disruption of access to or use of information or an information system.

Potential Impact on Organizations and Individuals

FIPS Publication 199 defines three levels of potential impact (low, medium, high) on organizations or individuals should there be a breach of security (i.e., a loss of confidentiality, integrity, or availability). The application of these definitions must take place within the context of each organization and overall State interest.

The potential impact is LOW if—

– The loss of confidentiality, integrity, or availability could be expected to have a limited adverse effect on organizational operations, organizational assets, or individuals. Clarification: A limited adverse effect means that, for example, the loss of confidentiality, integrity, or availability might: (i) cause a degradation in mission capability to an extent and duration that the organization is able to perform its primary functions, but the effectiveness of the functions is noticeably reduced; (ii) result in minor damage to organizational assets; (iii) result in minor financial loss; or (iv) result in minor harm to individuals.

The potential impact is MODERATE if—

– The loss of confidentiality, integrity, or availability could be expected to have a serious adverse effect on organizational operations, organizational assets, or individuals. Clarification: A serious adverse effect means that, for example, the loss of confidentiality, integrity, or availability might: (i) cause a significant degradation in mission capability to an extent and duration that the agency is able to perform its primary functions, but the effectiveness of the functions is significantly reduced; (ii) result in significant damage to agency assets; (iii) result in significant financial loss; or (iv) result in significant harm to individuals that does not involve loss of life or serious life threatening injuries.

The potential impact is HIGH if—

– The loss of confidentiality, integrity, or availability could be expected to have a severe or catastrophic adverse effect on agency operations, organizational assets, or individuals. Clarification: A severe or catastrophic adverse effect means that, for example, the loss of confidentiality, integrity, or availability might: (i) cause a severe degradation in or loss of mission capability to an extent and duration that the agency is not able to perform one or more of its primary functions; (ii) result in major damage to agency assets; (iii) result in major financial loss; or (iv) result in severe or catastrophic harm to individuals involving loss of life or serious life threatening injuries

3.3 Security Categorization Applied to Information Systems

Determining the security category of an information system requires consideration of the sensitivity of the information resident on that system. For an information system, the potential impact values assigned to the respective security objectives (confidentiality, integrity, availability) shall be the highest if the information stored on them is considered ‘confidential’. The generalized format for expressing the security category, SC, of an information system is: SC information system = {(confidentiality, impact), (integrity, impact), (availability, impact)}, Where the acceptable values for potential impact are LOW, MODERATE, or HIGH.

It is recognized that information systems are composed of both programs and information. Programs in execution within an information system (i.e., system processes) facilitate the processing, storage, and transmission of information and are necessary for the organization to conduct its essential mission-related functions and operations. These system processing functions also require protection and could be subject to security categorization as well. However, in the interest of simplification, it is assumed that the security categorization of all information types associated with the information system provide an appropriate worst case potential impact for the overall information system—thereby averting the need to consider the system processes in the security categorization of the information system.

SECTION 4: Security Program

An effective enterprise-wide information security program provides a strong foundation for understanding and implementing security throughout an agency. This Policy identifies key components that must be considered by an agency when implementing, reviewing, or seeking to improve the value of its information security program. It is encouraged that these components be reviewed for applicability to an agency's business environment and compliance with existing laws and policies, and implemented as appropriate for each agency. Some agencies may not require all components, but where a component is applicable to an agency's program, it should be adopted and implemented. Each agency is responsible for developing an IT Security Program illustrating how it will protect the agency's IT infrastructure in accordance with ITCB Security Policy. The following are minimum components that must be included within the program:

- IT Security Policy
- Risk Management Process
- Systems Development Life Cycle Methodology
- IT Security Certification and Accreditation
- IT Disaster Recovery Plan
- Security Awareness
- IT Incident Response Process

4.0 IT Security Policy

Information security policy is an essential component of information security governance—without the policy, governance has no substance and rules to enforce. Security Policy Management refers to the practices and methods used to create and maintain security policies to translate, clarify, and communicate management's position on high-level security principles. Policy management includes development, deployment, communication, updating, and enforcement of agency security policies. Agency information security policies should address the fundamentals of agency information security governance structure, including:

- Information security roles and responsibilities.
- Statement of security controls baseline and rules for exceeding the baseline.
- Rules of behavior that agency users are expected to follow and minimum repercussions for noncompliance.

Supporting guidance and procedures on how to effectively implement specific controls across the enterprise should be developed to augment an agency's security policy. This subsequent guidance on information security, created by the agency, in consideration of external guidance (e.g. NIST Special Publications and FIPS), should be consistent with the information security policy and may not supersede it, unless the policy itself is being modified. Agencies should ensure that their information security policy is sufficiently current to accommodate the information security environment and agency mission and operational requirements. To ensure that information security does not become obsolete, agencies should implement a policy review and revision cycle. As a part of the periodic review and the initial development of the information security policies, agencies should work to ensure that all internal security policies (i.e., physical and personnel) are sufficiently coordinated to ensure effective implementation of crosscutting and convergent security objectives, such as access control initiatives.

4.1 Risk Management

Risk Management refers to the process of identifying risk, assessing risk, and taking steps to reduce risk to an acceptable level. A risk management process must be implemented to assess the acceptable risk to agency IT systems as part of a risk-based approach used to determine adequate security for the system. Agencies shall analyze threats and vulnerabilities and select appropriate, cost-effective controls to achieve and maintain a level of acceptable risk. Agencies will define a schedule for on-going risk management review and evaluation based on the system sensitivity and data classification of the system. Refer to NIST Special Publication 800-30, Risk Management Guide for IT for guidance: <http://csrc.nist.gov/publications/nistpubs/800-30/sp800-30.pdf>. A risk management program is an essential management function and is critical for any agency to successfully implement and maintain an acceptable level of security.

A successful risk management program is a proactive, ongoing process of identifying and assessing risk, and weighing business tradeoffs on acceptable levels of risk against ever changing technologies and solutions.

Risk *assessment* is the first process in risk management. Agencies should use risk assessment to determine the extent of the potential threat and the risk associated with an IT system or an operational function. Depending upon the complexity and criticality of an agency's business, the risk assessment process may encompass up to nine primary steps, which include identification and evaluation of risks and risk impacts, and recommendation of risk-reducing measures. The output of this process helps to identify appropriate controls for reducing or eliminating risk during the risk mitigation process.

Risk *mitigation*, the second process of risk management, involves prioritizing, evaluating, and implementing the appropriate risk-reducing controls recommended from the risk assessment process. Controls are defined as IT processes and technologies designed to close vulnerabilities, maintain continuity of operation at specified performance levels, and achieve and document compliance with external and internal policy requirements.

The third process of risk management, *evaluation*, is ongoing and evolving. Evaluation emphasizes the good practice to develop an effective risk management program within the agency's information security program. Not only should the risk management program engage changes to existing systems, but should also integrate into the agency's operational functions, as well as the System Development Life Cycle (SDLC) for new systems and applications.

4.2 Systems Development Life Cycle Methodology

Agencies should ensure that security is an integral part of information systems, which include operating systems, infrastructure, applications and off-the-shelf products, services, and user-developed applications. Security requirements shall be identified and agreed upon prior to the development and/or implementation of information systems and documented as part of the overall business case. The requirements must also ensure compliance with any applicable laws, regulations, statutes, or state policies (e.g., HIPAA, PCI Standards, etc.). Security should be considered and designed in from the beginning and during the entire system development lifecycle. The following are minimum requirements that shall be included as part of the SDLC methodology;

- Implement requirements for ensuring authenticity and protecting message integrity in applications.
- Implement the use of encryption (cryptographic) measures to protect confidential or sensitive information and protect encryption keys from modification, loss and destruction.
- Implement input and output data validation checks to ensure data is correct and appropriate.
- Implement processes to control the installation of software on operating systems.
- Implement procedures to select, protect, and control test data. Do not use test data in a production environment or use production data in a test environment without careful consideration.
- Limit access to program source code and place source code in a secure environment.
- Implement change control procedures to minimize the corruption of information systems.
- Limit modifications to vendor-supplied software packages.
- When outsourcing software development, consider contractual language for licensing arrangements, code ownership, quality and security functionality, testing to detect malicious code, and escrow arrangements in the event of third party failure.

4.3 System Certification and Accreditation

Security *accreditation* is the official management decision given by a senior agency official to authorize operation of an information system and to explicitly accept the risk to agency operations, agency assets, or individuals based on the implementation of an agreed-upon set of security controls. The senior agency official should have the authority to oversee the budget and business operations of the information system. Security accreditation provides a form of quality control and challenges managers and technical staffs at all levels to implement the most effective security controls possible in an information system, given mission requirements, technical constraints, operational constraints, and cost/schedule constraints. By accrediting an information system, an agency official accepts responsibility for the security of the system and is fully accountable for any adverse impacts to the agency if a breach of security occurs. Thus, responsibility and accountability are core principles that characterize security accreditation.

The assessment of risk and the development of system security plans are two important activities in an agency's information security program that directly support security accreditation. Risk assessments influence the development of the security controls for information systems and generate much of the information needed for the associated system security plans. Risk assessments can be accomplished in a variety of ways depending on the specific needs of the agency. Some agencies may choose to assess risk informally. Other agencies may choose to employ a more formal and structured approach. In either case, the assessment of risk is a process that should be incorporated into the system development life cycle. At a minimum, documentation should be produced that describes the process employed and the results obtained. System security plans provide an overview of the information security requirements and describe the security controls in place or planned for meeting those requirements. System security plans can include as references or attachments, other important security-related documents (e.g., risk assessments, contingency plans, incident response plans, security awareness and training plans, information system rules of behavior, configuration management plans, security configuration checklists, privacy impact assessments, system interconnection agreements) produced as part of an agency's information security program.

In addition to risk assessments and system security plans, security assessments play an important role in security accreditation. It is essential that agency officials have the most complete, accurate and trustworthy information possible on the security status of their information systems in order to make timely, credible, risk-based decisions on whether to authorize operation of those systems. The information and supporting evidence needed for security accreditation is developed during a detailed security review of an information system, typically referred to as security certification. Security *certification* is a comprehensive assessment of the management, operational, and technical security controls in an information system, made in support of security accreditation, to determine the extent to which the controls are implemented correctly, operating as intended, and producing the desired outcome with respect to meeting the security requirements for the system. The results of a security certification are used to reassess the risks and update the system security plan, thus providing the factual basis for an authorizing official to render a security accreditation decision.

By accrediting an information system, an agency official accepts the risks associated with operating the system and the associated implications on agency operations, agency assets, or individuals. Completing a security accreditation ensures that an information system will be operated with appropriate management review, that there is ongoing monitoring of security controls, and that reaccreditation occurs periodically in accordance with federal or agency policy and whenever there is a significant change to the system or its operational environment.

4.4 IT Disaster Recovery Plan

Agencies shall develop, implement, and test an IT Disaster Recovery plan for each critical system to ensure that contingency procedures will be available in the event of a disaster resulting in the loss of services from the primary production system. Creation, maintenance, and annual testing of a plan will minimize the impact of recovery and loss of information assets caused by events ranging from a single disruption of business to a disaster. Planning and testing provides a foundation for a systematic and orderly resumption of all computing services within an agency when disaster strikes.

4.5 Security Awareness

A key component to assure that users understand their role and responsibility for information security is through an ongoing awareness program. Awareness is not training. The purpose of awareness is simply to focus attention on security. Awareness presentations are intended to allow individuals to recognize IT security concerns and respond accordingly. An effective program ensures employees and contractors know about information security and privacy relative to their job responsibilities. A good awareness program promotes the agency's existing policies, standards, and practices.

A successful security awareness program should target various groups (such as employees and contractors, IT staff, or managers and supervisors) with information pertinent to their respective roles. Most users would be interested in awareness material addressing Internet use, email, and handling confidential information. Technical support personnel would be more focused on access control, anti-virus, and patch management administration. The executives would be more interested in the benefits of enabling business through information security, risk management, and business continuity. Agencies shall develop and implement a security awareness program that, at a minimum, includes the following;

- Promote security awareness using techniques such as: posters, email messages, formal instruction, web-based instruction, videos, newsletters, and security awareness days.
- Ensure all users sign confidential and acceptable use statements.
- Ensure all users can quickly identify threats, and know how to respond to security incidents.
- Inform all users about agency policies and procedures.
- Regularly review and update training content to reflect changes to the agency's environment.

Important Resources

<http://csrc.nist.gov/publications/nistpubs/800-50/NIST-SP800-50.pdf>

Building an IT Security Awareness and Training Program

<http://DoIT.maryland.gov/support/Pages/SecurityAwareness.aspx>

DoIT Security Awareness Web Page

<http://intranet.dpscs.mdstate/training/securityAware20091208.pdf>

DPSCS Security Awareness Page

4.6 IT Incident Response Process

Information Security Critical Incident Management refers to the processes and procedures agencies implement for identifying, responding to, and managing information security incidents. A critical incident is one that can shut down business, disrupt operations, cause physical damage, or that can threaten the agency's financial or public image. Examples of critical incidents could include activity such as:

- Unwanted disruption or denial of service
- The unauthorized use of a system for the processing or storage of data
- Changes to system hardware, firmware, or software characteristics without the owner's knowledge, instruction, or consent

Development, documentation, and implementation of an information security incident response plan provide the framework for an agency to proactively manage incidents when they occur. Agencies shall be required to detect, track, log and report critical security incidents. The speed with which an agency can recognize, analyze, and respond to an incident will limit the damage and lower the cost of recovery. The term damage means “impairment to the integrity or availability of data, a program, a system or information”. Agencies should report critical incidents to the ITCD Service Desk (410) 585-3800 or Helpdesk@dpscs.state.md.us. Appendix A contains the Computer Security Critical Incident Handling Form.

SECTION 5: Electronic Communications

This document sets forth policy of the ITCD with respect to access, disclosure, recording, and general usage of electronic communications created, received, or stored through the use of the electronic communications systems owned, leased, or otherwise affiliated with Executive Departments and Independent State Agencies. The purpose of this policy is to explain the ownership of the electronic communications created, received, or stored on the State electronic communications systems and to inform users of the systems about their rights and duties with respect to electronic communications.

This policy applies to users of State electronic communications systems and may be changed by the Agency, in its discretion, without prior notice. This policy is in addition to, and not in replacement of, any other published policy or code of conduct of Executive Departments and Independent State Agencies.

The State encourages the use of electronic communications and electronic communications systems to enhance efficiency. Electronic communications and electronic communications systems are to be used for business purposes in serving the interests of the State and the citizens, visitors, and commerce partners of the State of Maryland. All electronic communications created, received, or stored on the DPSCS’s electronic communications systems are the sole property of the State and not the author, recipient, or user.

Any non-government business use or intentional misuse of the DPSCS’s electronic communications systems is a violation of this policy. Non-government business uses include, but are not limited to:

- Sending and responding to lengthy private messages,
- Sending political messages,
- Operating a business for personal financial gain, and
- Purchasing goods or services for private uses.

Intentional misuse includes, but is not limited to, receiving, displaying, storing, or transmitting threatening or sexually-explicit images, messages, or cartoons as well as epithets or slurs based upon race, ethnic or national origin, gender, religious affiliation, disability, or sexual orientation and harassing, offensive, discriminatory, or defamatory communications or images without a government business purpose. It also includes attempting to access a secure database, whether private or public, without permission.

The DPSCS’s electronic communications systems may be used for minor, incidental personal uses, as determined by management that are not intentional misuses. Personal use shall not directly or indirectly interfere with the Agency’s business uses, directly or indirectly interfere with another user’s duties, or burden DPSCS with more than a negligible cost.

Users shall have no expectation as to the privacy or confidentiality of any electronic communication, including minor incidental personal uses.

DPSCS reserves and will exercise the right to access, intercept, inspect, record, and disclose any and all electronic communications on the DPSCS's electronic communications systems, including minor incidental personal uses, at any time, with or without notice to anyone, unless prohibited by law or privilege.

DPSCS reserves the right to monitor compliance with this policy by accessing, intercepting, recording, or disclosing any electronic communications, including minor incidental personal uses, unless prohibited by law or privilege.

DPSCS reserves the right to access, intercept, inspect, record, and disclose any electronic communications during or after normal working hours and even if the electronic communications appear to have been deleted from the electronic communications systems. The use of a DPSCS password shall not restrict the Agency's right to access electronic communications.

Senior management or individuals with delegated authority, from Executive Departments and Independent DPSCS Agencies have the authority to determine when employee personal use exceeds minor, incidental, or inappropriate.

Users are not permitted to hinder or obstruct any security measures instituted on the DPSCS's electronic communication systems.

5.0 Acceptable Use

The following activities are examples of acceptable use of agency electronic communications:

- Send and received electronic mail for job related messages, including reports, spreadsheets, maps etc.
- Use electronic mailing lists and file transfers to expedite official communications within and among DPSCS agencies, as well as other job related entities.
- Access on line information sources to gather information and knowledge on state and federal legislation, industry best practices, or to obtain specialized information useful to DPSCS agencies.
- Connect with other computer systems to execute job related computer applications, as well as exchange and access datasets.
- Communicate with vendors to resolve technical problems.

5.1 Unacceptable Use

The following activities are examples of unacceptable use of agency electronic communications:

- Engaging in any activity that is illegal under Local, State, Federal or International law in conjunction with the usage of the DPSCS's electronic communications systems.
- Violating the rights of any person or company protected by copyright, trade secret, patent or other intellectual property or similar laws or regulations.
- Unauthorized reproduction of copyrighted material including, but not limited to, digitization and distribution of photographs from magazines, books or other copyrighted sources, copyrighted music, and the installation of any copyrighted software for which the Agency or the user does not have a specific and active license.
- Exporting software, technical information, or technology in violation of International or regional export control laws.

- Introduction of malicious programs into the DPSCS's electronic communications systems infrastructure including, but not limited to, computer workstations, servers, and networks.
- Circumventing user authentication or security of any account, host, or network, including disclosing a user's password to others or allowing a user's account to be used by others.
- Interfering with or denying electronic communications system services to any user.
- Inappropriate purposes, in violation of the intended use of the network, as defined by this policy and ITCD.
- Interference or disruption of network users, services, or computers, including distribution of unsolicited advertising, and/or propagation of computer viruses.
- Effecting security breaches or disruptions of any electronic communications system. This includes, but is not limited to tampering with the security of State owned computers, network equipment, services or files.

User's access to DPSCS electronic communications systems resources shall cease when one of the following occurs:

- Termination of employment.
- Termination of a contractor's or consultant's relationship with DPSCS.
- Leave of absence of employee.
- Lay-off of employee.

SECTION 6: Physical Security

Physical access to IT information processing, storage areas, and storage devices and its supporting infrastructure (communications, power, and environmental) must be controlled to prevent, detect, and minimize the effects of unauthorized or unintended access to these areas. Agencies must:

- Secure IT areas with controls commensurate to the risks;
- Ensure secure storage of media;
- Obtain personnel security clearances where appropriate;
- Ensure secure media reuse;
- Ensure the secure destruction of storage media.

6.0 Secured IT Areas

Physical access controls must be in place for the following:

- Data Centers;
- Areas containing servers and associated media;
- Networking cabinets and wiring closets;
- Power and emergency backup equipment;
- Operations and control areas.

Access to data centers and secured areas will be granted for those employees, contractors, technicians and vendors who have legitimate business responsibilities in those areas. Authorization should be:

- Based on frequency of need for access;
- Approved by the manager responsible for the secured area.

Each agency is responsible for:

- Issuing picture identification badges to all Employees/contractors and ensuring that these badges are openly displayed at all times;
- Ensuring that all portable storage media such as hard drives, flash media drives, diskettes, magnetic tapes, laptops, PDA devices, DVDs and CDs are physically secured;
- Ensuring proper environmental and physical controls are established to prevent accidental or unintentional loss of information residing on IT systems;
- Ensuring that any physical access controls are auditable.

6.1 Storage and Marking

IT Systems and electronic media shall be protected and marked in accordance with the data sensitivity (see Section 3). Users shall not store data on electronic media that cannot be adequately secured against unauthorized access. Data to be electronically transferred to a remote storage location should be transferred only by a secure and encrypted method.

6.2 Personnel

Fingerprint based criminal history background checks are required for personnel as determined by the system sensitivity and data classification. Agencies will ensure that an appropriate background checks (e.g., CJIS, State Police) has been completed on personnel as necessary and maintain personnel background check information on file.

6.3 Storage Media Reuse

When no longer required for mission or project completion, media to be used by another person within the agency shall be overwritten with software and protected consistent with the classification of the data. Specific procedures shall be documented in the IT System Security Plan.

6.4 Storage Media Disposal

Throughout the lifecycle of IT equipment, there are times when an agency will be required to relinquish custody of the asset. The transfer of custody may be temporary, such as when equipment is serviced or loaned, or the transfer may be permanent; examples being a donation, trade-in, lease termination or disposal through the Department of General Services. Any transfer of custody of equipment poses a significant risk that sensitive information, licensed software and intellectual property stored on that equipment may also be transferred. Despite the application of media clearing processes, in many cases, information that appears to have been removed may be easily recoverable.

This policy applies to all electronic storage media equipment that is owned or leased by the DPSCS. This may also include cell phones. The purpose of this policy is to ensure secure handling of electronic storage media containing DPSCS data, licensed software, and intellectual property at the time of disposal, servicing or transfer of State agency IT equipment.

To eliminate the possibility of inadvertently releasing residual representation of State data, DPSCS agencies will physically remove all hard drives when permanently relinquishing custody of IT equipment. The removed hard drives may either be re-used within an agency or must be physically destroyed such that they are permanently rendered functionally useless. Agency CIOs will be responsible for the hard drive removal, recycling, destruction and/or disposal process. A waiver may be requested from ITCD's Enterprise Information Services to allow disposal of a device with a hard drive provided that the agency CIO provides justification for this variance as well as written certification that the included electronic media has been overwritten in accordance with U.S. Department of Defense media cleaning standards.

For situations in which the IT equipment leaves the custody of the agency temporarily, such as servicing of equipment or a temporary loan of equipment outside of an agency, the agency shall conduct an assessment of the information stored on the equipment and appropriately secure the information such that the unauthorized disclosure or use of the information is prevented. If the equipment contains confidential or high-risk information, the agency shall remove the hard drive. If removal of the hard drive is not feasible, the agency shall sanitize the equipment or encrypt the information commensurate with the assessment of the information contained on the hard disk.

SECTION 7: Network Security

The DPSCS owns and operates a local area network infrastructure to support approved user applications and services. It must ensure that all networks are protected from unauthorized access at all entry points. To help accomplish this, each agency must, at a minimum:

- Establish a process for restricting local network access to authorized devices only;
- Establish a process to protect from unauthorized dial-in access;
- Utilize the State approved banner text;
- Establish a process to ensure that all external IP connections are made through a firewall;
- Implement and monitor an Intrusion Detection Systems (IDS) or Intrusion Prevention System (IPS);
- Establish a process to ensure that all Service Interface Agreements (SIAs) are managed in accordance with their IT Security Program and the ITCD Policy;
- Establish a process to ensure that the same level of controls that exist on-site exist for users working remotely;
- Establish a process to prevent unauthorized active content from being loaded onto DPSCS IT equipment;
- Establish a process for ensuring that wireless network connections do not compromise the Agency's network;
- Establish a process for securing all Private Branch Exchanges (PBXs);
- Establish a process to prevent unauthorized networks to access VoIP networks.

7.0 Local Network Access

- Network devices shall be configured and maintained so as to not cause network performance degradation, not cause excessive, unwarranted traffic flows, and be suitably hardened against network security threats

- Authorized users shall not connect devices which are not the property of, nor under the control of the Agency, to the Agency’s computing resources without prior written approval by the CIO or other delegated authority of the Executive Departments or Independent State Agency. If approved, the user may be granted restricted network access rights and is required to provide protections equivalent to the Agency’s protection of its own equipment
- Authorized users shall adhere to the Agency’s Policy on Acceptable Use of the Information Infrastructure
- In accessing the network, authorized users shall adhere to, and network connecting devices shall conform to, the policies set forth in this document

7.1 Dial-in Access

Dial-up refers to connecting a device to a network via a modem utilizing a public telephone network. The following controls for dial-in users must be implemented:

- Unique network access user ids different from their application or network user id;
- A minimum prohibition of answer or pickup until after the sixth (6th) ring;
- Access privileges must be prohibited to any applications except those expressly required (i.e. cannot grant access to entire network, must be application specific);
- Annual review of access requirements;
- Remote user shall not store data unless the data can be protected from unauthorized access, modification, or destruction.

The following services are prohibited except where they are specifically approved by the Agency CIO or other delegated authority of the Executive Departments or Independent DPSCS Agency:

- Dial-in desktop modems;
- Use of any type of “remote control” product (e.g., PCAnywhere, GoToMyPC);
- Use of any network-monitoring tool.

7.2 Banner Text Policy

Banners are electronic messages that provide notice of legal rights to users of computer networks. DPSCS banners are used to generate consent to real-time monitoring and eliminate the "reasonable expectation of privacy" that government employees or other users might otherwise retain in their use of the government's network. The following is an example of the type of banner text that must be displayed at all system entry points and at all access points to servers, subsystems, etc... where initial user logon occurs.

“Access to this system is restricted to authorized users only and limited to approved business purposes. By using this system, you expressly consent to the monitoring of all activities. Any unauthorized access or use of this system is prohibited and could be subject to criminal and civil penalties. All records, reports, e-mail, software, and other data generated by or residing upon this system are the property of State of Maryland and may be used by the State of Maryland for any purpose.”

An automatic pause, slow roll rate, or user acknowledgement is required to ensure that the banner can be read. The banner is:

- Required for all mainframe, midrange, workstation, personal computer, and network systems;
- Must be used in addition to, and is not a substitute for, any default banners or copyright/proprietary notices;

- The first banner that is displayed, except for citizen interfaces where use will negatively impact the citizen. In such cases, this negative impact must be documented in the Agency's IT Security Program.

7.3 Firewalls & Network Devices

Firewalls provide a layer of defense that protects local area networks from un-trusted (Internet) sources. DPSCS networks shall be protected by firewalls at identified points of interface as determined by system and data classification. Firewall implementation requirements;

- Permit only documented and approved inbound traffic to non-internal host/subnets;
- Disable all unused services;
- Hide and prevent direct access to ITCD trusted network addresses from un-trusted sources;
- Default administrator username and password must be changed;
- Management access must be limited to appropriate personnel;
- Maintain comprehensive audit logs and implement review procedures;
- Fail in a closed state;
- Operate on a dedicated platform (device);
- All devices shall have updates and patches installed on a timely basis to correct significant security flaws.
- All publicly accessible servers must be separated from any internal subnets by a firewall. Strict access control must be enforced between publicly accessible subnets and internal subnets by documented and approved access-lists.
- Management access must utilize a secure communication channel (encryption)

7.4 Intrusion Detection Policy

Intrusion Detection/Prevention Systems provide a means for detecting suspicious behavior within the network, generating alerts and offering mitigation options. DPSCS networks shall be monitored by an IDS or IPS implemented at critical junctures. Host-based, network-based, or a combination of both may be utilized. IDS/IPS implementation requirements;

- Default administrator username and password must be changed;
- Management access must be limited to appropriate personnel;
- System must be monitored and/or information logged 24x7x365;
- Signature-based solutions must be updated on a regular schedule;
- Each agency must establish a severity and escalation list based upon anticipated events that include immediate response capability when appropriate. These plans should be incorporated in the Agency's IT Security Program.

7.5 Service Interface Agreements

External network connections shall be permitted only after all approvals are obtained consistent with this policy and shall be managed in accordance with a Service Interface Agreement (SIA) that is agreed to by the DPSCS agency and the non-DPSCS entity. These connections are subject to the Maryland Public Information Act and should not be part of the ordinary process of doing business. Specific criteria should be included in the system IT Security Certification and Accreditation package and in the IT System security plan. An SIA shall include:

- Purpose and duration of the connection as stated in the agreement, lease, or contract;
- Points-of-contact and cognizant officials for both the DPSCS and non-DPSCS organizations;

- Roles and responsibilities of points-of-contact and cognizant officials for both DPSCS and non-DPSCS organizations;
- Security measures to be implemented by the non-DPSCS organization to protect the DPSCS's IT assets against unauthorized use or exploitation of the external network connection;
- Requirements for notifying a specified DPSCS official within a specified period of time of a security incident on the network, with the recommended time within 4 hours of the incident;
- A provision allowing the DPSCS to periodically test the ability to penetrate the non-DPSCS network through the external network connection or system.

7.6 Remote Access

This policy applies to all employees, contractors, vendors and agents with a computer used to connect to an agency network (including the connections used) to perform work on behalf of the agency including reading or sending email and viewing intranet web resources.

Storage of confidential information on any non-DPSCS owned device is prohibited. Confidential information may not be stored on any DPSCS owned portable device without prior written approval from agency Secretary (or delegated authority). Approved storage on any portable device must be encrypted.

It is the responsibility of employees and contractors with remote access privileges to ensure that their remote access connection is given the same consideration as the user's on-site agency connection. All remote access users are expected to comply with agency policies, may not perform illegal activities, and may not use the access for outside business interests. The minimum requirements for a remote access solution are;

- Equipment that is used to connect to an agency's network must meet the minimum security requirements of agency-owned equipment.
- Remote access must be strictly controlled with unique user credentials.
- Remote access passwords are to be used only by the individual to whom they were assigned and may not be shared.
- All remote access connections that utilize a shared infrastructure, such as the Internet, must utilize some form of encryption.
- Split-tunneling or dual homing is not permitted at any time.

7.7 Active Content

Active content or mobile code refers to electronic documents that can carry out or trigger actions automatically without an individual directly or knowingly invoking the actions. Active content technologies allow code, in the form of a script, macro, or other kind of portable instruction representation, to execute when the document is rendered. Like any technology, active content can be used to deliver essential services, but it can also become a source of vulnerability for exploitation. Agencies should understand the concept of active content and how it affects the security of their systems.

Security is inversely related to complexity – the more complex a system, the more difficult it is to secure. Therefore, the functionality of a system should be reduced to the minimum needed to carry out its operation. Administrators should remove unnecessary applications and program components to reduce complexity and shut off possible avenues of attack.

- Procedures shall be implemented to remove any unnecessary software including development tools not needed in providing Web services.

- Server-side scripts must constrain users to a small set of well-defined functionality and validate the size and values of input parameters.
- Scripts must be run only with minimal privileges (i.e., non-administrator).
- Create and distribute active content documents only after carefully considering the risk and benefits.
- Agencies shall obtain all software through approved distribution channels.
- Institutionalize how needed plug-ins and other software code are obtained from software manufactures, evaluated, and distributed throughout the agency.
- Administrators must become knowledgeable of the security settings of desktop applications and turn off unneeded functionality such as unnecessary plug-ins or ActiveX controls.
- Keep systems current with the latest software upgrades and patches that address security vulnerabilities in desktop applications, such as Web browsers, readers, email clients, and other critical software.
- Evaluate and install anti-malware software, firewalls, active content filters, and dynamic behavior monitors according to agency security requirements. Keep these products upgraded to the latest version.
- Educate users to not peruse active content or run downloaded software from untrusted sources. Enable ActiveX code only from trusted Web sites that require its use.
- Educate users to not open active content documents or execute any email attachments without first verifying them with the sender.
- Disable JavaScript and any other active content processing capabilities within email desktop applications that are capable of handling HTML or other markup language encoded messages.
- Administrators must keep informed of latest security advisories from the United States Computer Emergency Readiness Team (US-CERT) and the Computer Emergency Response Team (CERT) Coordination Center, and subscribe to security mailing lists.
- Administrators must periodically cross-check products against published lists of known vulnerabilities, such as the National Vulnerability Database (NVD) that provide pointers to solution resources and patch information.
- Know who to contact and what steps to take when discovering evidence of an intrusion.

7.8 Wireless

This policy specifies the conditions that wireless infrastructure devices must satisfy to connect to any DPSCS agency network. Only wireless systems that meet the criteria of this policy or have been granted an exclusive waiver by the Agency CIO (or similar delegated Agency authority) are approved for connectivity to agency networks. Agencies shall;

- Establish a process for documenting all wireless access points
- Ensure proper security mechanisms are in place to prevent the theft, alteration, or misuse of access points
- Restrict hardware implementation to utilize Wi-Fi certified devices that are configured to use the latest security features available
- Change default administrator credentials
- Change default SNMP strings if used, otherwise disable SNMP
- Change default SSID
- Deploy secure access point management protocols and disable telnet
- Strategically place and configure access points so that the SSID broadcast range does not exceed the physical perimeter of the building
- Require wireless users to provide unique authentication over encrypted channels if accessing internal LAN services

- Require wireless users to utilize encrypted data transmission if accessing internal LAN services

7.9 Private Branch Exchange (PBX)

If PBX processors require remote vendor maintenance via a dial-in telephone line the following controls must be in place:

- A single dedicated telephone line that disables access to the public-switched telephone network;
- An automated audit trail;
- Encryption of transmissions;
- Access controls.

SECTION 8: Access Control

All Agencies must ensure that information is accessed by the appropriate persons for authorized use only. To help accomplish this each agency must establish at a minimum the following:

- An authentication process to verify the identity of users prior to initiating a session or transaction on an IT system;
- An authorization process which specifically grants access to information ensuring that access is strictly controlled, audited, and that it supports the concepts of “least possible privileges” and “need-to-know”;
- An audit trail process to ensure accountability of system and security-related events;
- A process for ensuring that all systems have the ability to log and report specific security incidents and all attempted violations of system security. In addition, this capability must be enabled at all times;
- A review process of security audit logs, incident reports and on-line reports at least one (1) time per business day using automated tools to facilitate the review where possible;
- An investigation process for any unusual or suspicious items, which will incorporate reporting the incident to ITCD Enterprise Information Services’ Security Team.
- The processes to establish, manage, and document user id and password administration;
- A review of access privileges on an annual basis;
- A process for protecting confidential information;
- A process for explicitly authorizing access to confidential information;
- A process for documenting and escalating all instances of non-compliance with the ITCD IT Security Policy;
- A segregation of the functions of system administration and security administration to provide separation of duties;
- Independent audits of agency security administrators’ security transactions.

8.0 Authentication

All users must be uniquely identified. Group or shared ids are prohibited unless they are documented as “Functional ids”. Functional ids are user accounts associated with a group or role that may be used by multiple individuals (e.g., Emergency Problem/Fix Ids) or that are associated with a particular production job process (e.g., RACF id used to run production jobs). Passwords associated with functional ids are exempt from the password restriction on sharing and change requirements specified below.

8.1 Password Construction Rules and Change Requirements

Passwords must meet the following construction, usage and change requirements:

- The password must not be the same as the user id;
- Passwords must not be stored in clear text;
- Passwords must never be displayed on the screen;
- Change temporary passwords at the first logon;
- Passwords must be a minimum of eight (8) characters and consist of mixed alphabetic and numeric characters. Passwords must not consist of all numbers, all special characters, or all alphabetic characters;
- Passwords must not contain leading or trailing blanks;
- Change passwords at regular intervals;
- Password reuse must be prohibited by not allowing the last 10 passwords to be reused with a minimum password age of at least 2 days;
- Where possible, users should be prohibited from only changing/or adding one (1) character to their previous password (i.e., users should be prohibited from using passwords that are similar to their previous password);
- Automated controls must ensure that passwords are changed at least as frequently as every ninety (90) days for regular users, forty-five (45) days for power users, such as network and database administrators;
- Passwords older than its expiration date must be changed before any other system activity is performed;
- User ids associated with a password must be disabled after not more than four (4) consecutive failed login attempts while allowing a minimum of a ten (10) minute automatic reset of the account;
- When a user password is reset or redistributed, the validation of the user identity must be at least as strong as when originally established.

8.2 Authorization

All Agencies must have the following authorization controls implemented:

- A documented process to ensure that access privileges are verified at least annually;
- An automated process to ensure that individual user sessions either time out or initiate a password protected screen saver after a period of thirty (30) minutes of inactivity;
- A documented process to ensure that access rights reflect changes in employee/contractor status within twenty-four (24) hours of the change;
- A documented process to ensure that physical and logical access is immediately disabled upon a change in employment status where appropriate;
- An automated process to ensure that user ids are disabled after sixty (60) days of inactivity unless they are extended through the explicit approval of the Information Custodian (Note: Functional ids may be exempted from this requirement);
- A documented process to ensure that all default access capabilities are removed, disabled, or protected to prevent unauthorized use;
- A process/system to ensure that access privileges are traceable to a unique user id;
- An automated display, after a successful logon, showing the date and time of last successful logon and the number of unsuccessful logon attempts since the last successful logon.

8.3 Audit Trail

The following minimum set of events/actions must be logged and kept as required by State and Federal laws/regulations:

- Additions, changes or deletions to data produced by IT systems;
- Identification and authentication processes;

- Actions performed by system operators, system managers, system engineers, technical support, data security officers, and system administrators;
- Emergency actions performed by support personnel and highly privileged system and security resources.

The audit trails must include at least the following information:

- Date and time of event;
- User id of person performing the action;
- Type of event;
- Asset or resource name and type of access;
- Success or failure of event;
- Source (terminal, port, location, IP address) where technically feasible.

8.4 Violation Log Management and Review

The Information Custodian must review all violations within one business day of a discovered occurrence. Automated tools are recommended when performing this review whenever possible. At a minimum the following events should be reviewed:

- Two (2) or more failed attempts per system day to access or modify security files, password tables or security devices;
- Disabled logging or attempts to disable logging;
- Two (2) or more failed attempts to access or modify confidential information within a week (5 business days);
- Any unauthorized attempts to modify software or to disable hardware configurations.

SECTION 9: Communication and Operations Management

System communications protection refers to the key elements used to assure data and systems are available, and exhibit the confidentiality and integrity expected by owners and users to conduct their business. The appropriate level of security applied to the information and systems is based on the classification and criticality of the information and the business processes that use it.

The key elements of system and communications protection are backup protection, denial of service protection, boundary protection, use of validated cryptography (encryption), public access protection, and protection from malicious code. Although the elements are described in terms of the technologies needed and/or used for system and communication protection it is really the processes that administer and monitor the technologies that assure the required level of security.

Operations management refers to implementing appropriate controls and protections on hardware, software, and resources; maintaining appropriate auditing and monitoring; and evaluating system threats and vulnerabilities. As always, it is a balance of these types of controls against business requirements, cost, efficiency, and effectiveness.

Operations management covers IT assets throughout their lifecycle. Thus, it is greater than the cost of just purchasing assets, and includes all ongoing maintenance, security, monitoring and problem resolution. The overall goal of operations management is to lower the total cost of ownership of all organizational devices, from enterprise servers to mobile devices attached to the network, while keeping the environment secure.

Proper operations management safeguards all of the organization's computing resources from loss or compromise, including main storage, storage media (e.g., tape, disk, and optical devices), communications software and hardware, processing equipment, standalone computers, and printers. The method of protection used should not make working within the agency's computing environment an onerous task, nor should it be so flexible that it cannot adequately control excesses. Ideally, it should obtain a balance between these extremes, as dictated by the agency's specific business needs.

This balance depends, at least in part, on two items. One is the value of the data, which may be stated in terms of intrinsic value or monetary value. Intrinsic value is determined by the information's criticality and sensitivity — for example, health- and personal-related information may have a high intrinsic value. The monetary value is the potential financial or physical losses that would occur should the information be breached or violated. The second item is the ongoing business need for the information, which is particularly relevant when continuous availability (i.e., round-the-clock processing) is required.

Minimum agency requirements include;

- Implement cryptographic solutions (encryption) when the confidentiality or sensitivity of information must be maintained while a message is in transit between computing devices and when confidential or sensitive information is stored in a file or database.
- Deploy and routinely update appropriate anti-virus, anti-spyware and file extension blocking solutions at the gateway entry points and on the desktop and server systems to prevent these systems from being compromised.
- Ensure a firewall or other boundary protection mechanism is in place and has the ability to (1) evaluate source and destination network addresses, and (2) compare the request (including destination ports) to predefined access control lists for filtering purposes.
- Deploy appropriate Intrusion Detection System and Intrusion Prevention System (IDS/IPS) solutions at the correct network location(s) and monitor to detect when the agency is under attack so an effective detection and defense strategy can be deployed.
- Implement an appropriate change management process to ensure changes to systems are controlled.
- Provide for separation of duties by assigning tasks to different personnel, preventing one person from having total control of the security measures.
- Establish procedures to implement an agreed backup policy and strategy, including the extent (e.g., full or differential/incremental), frequency, offsite storage, testing, physical and environmental protection, restoration, and encryption.
- Secure certain internal data and systems (Personnel Services, for instance) from other data and systems on the networks.
- Do not place confidential or sensitive data on any application servers, database servers, or infrastructure components that require direct access from the Internet. Components that meet these criteria must be placed behind a de-militarized zone (DMZ) where they are not accessible from the Internet and can only interact with DMZ components through a firewall.
- Establish appropriate procedures to protect documents, computer media, information/data, and system documentation from unauthorized disclosure, modification, removal, and destruction, including suitable measures to properly dispose of media when it is no longer needed.
- Establish procedures and standards to protect information and physical media containing information in transit, including using facsimile machines, exchange agreements between the agency and external parties, transportation of physical media, and monitoring (e.g., audit logging, monitoring system use.)

- Implement appropriate levels of security monitoring including intrusion detection, penetration testing, and violation analysis.
- Perform reviews of audit trails on a regular basis to alert an agency to inappropriate practices.
- Ensure preventive or detection controls are in place to decrease or identify the threat of unintentional errors or unauthorized users accessing the system and modifying data.
- Implement appropriate retention policies as dictated by the agency's policies, standards, legal and business rules.
- Implement appropriate documentation such as security policies and procedures, business contingency plans, disaster recovery plans, and incident response plans, including a plan for cyber attacks, such as a denial of service attack.

SECTION 10: Policy Violations

Executive Departments and Independent DPSCS Agencies will determine the appropriate corrective measures necessary to immediately remedy the violation. Disciplinary action, up through termination, may be warranted in cases of severe negligence.

APPENDICES

Appendix A: Computer Security Critical Incident Handling Form

Critical Incident Identification

Date_____

Incident Detector's Information:

Name: _____

Title: _____

Phone: _____

Fax: _____

E-mail: _____

The ITCD: _____

Address: _____

Date and Time Detected: _____

Type of Incident Detected:

Denial of Service Unauthorized Use Unauthorized Access Malicious Code
Probe Other _____

How was the incident discovered?

Additional Information:

Detector's Signature: _____

Appendix B: Definitions

Approved Electronic File Transmission Methods	Includes Virtual Private Network (VPN) tunnels supported by Executive Departments and Independent DPSCS Agencies.
Approved Electronic Mail	Includes all mail systems supported by Executive Departments and Independent DPSCS Agencies.
Cable Modem	Cable companies provide Internet access over Cable TV coaxial cable. A cable modem accepts this coaxial cable and can receive data from the Internet.
Dial-in Modem	An external device or internal electronic circuitry used to transmit and receive digital data over a communications line normally used for analog signals.
DMZ	Also known as a Data Management Zone or demarcation zone, is a physical or logical subnetwork that contains and exposes an organization's external services to a larger, untrusted network, usually the Internet. The purpose of a DMZ is to add an additional layer of security to an organization's Local Area Network (LAN); an external attacker only has access to equipment in the DMZ, rather than the whole of the network.
DSL	Digital Subscriber Line (DSL) is a form of high-speed Internet access competing with cable modems.
Dual Homing	Having concurrent connectivity to more than one network from a computer or network device. Examples include: Being logged into the Corporate network via a local Ethernet connection, and dialing into AOL or other Internet service provider (ISP). Being on an ITCD provided Remote Access home network, and connecting to another network, such as a spouse's remote access.
Electronic Communications	Including, but not limited to, messages, transmissions, records, files, data, and software, whether in electronic form or hardcopy.
Electronic Communications Systems	Including, but not limited to, hardware, software, equipment, storage media, electronic mail, telephones, voice mail, mobile messaging, Internet access, and facsimile machines.
Encryption	The process of transforming information (referred to as plain text) using an algorithm (called cipher) to make it unreadable to anyone except those possessing special knowledge, usually referred to as a key. Refer to ITCD's Acceptable Encryption Policy for more information.
HTTPS	Hypertext Transfer Protocol over Secure Socket Layer is a URL scheme used to indicate a secure HTTP connection.
Media clearing	Media clearing is the removal of sensitive data from storage devices in such a way that there is assurance, proportional to the sensitivity of the data, that the data may not be reconstructed using normal system functions. The data may still be recoverable, but not without unusual effort.
Network	A computer network is a system for communication among two or more computers.
Network Device	Includes; servers, desktop computers, laptop computers, printers, scanners, photocopiers, personal computing devices and other computing devices

	with networking interfaces capable of connecting to the Agency's network.
Private	Personally Identifiable Information (PII); such as an individual's social security number, financial or health records.
Privileged	Records protected from disclosure by the doctrine of executive privilege which may include but not limited to records: <ul style="list-style-type: none"> • Relating to budgetary and fiscal analyses, policy papers, and recommendations made by the Department or by any person working for the Department; • Provided by any other agency to the Department in the course of the Department's exercise of its responsibility to prepare and monitor the execution of the annual budget; • Relating to a State procurement when a final contract award has not been made or when disclosure of the record would adversely affect future procurement activity; • Of confidential advisory and deliberative communications relating to the preparation of management analysis projects conducted by the Department pursuant to State Finance and Procurement Article, §7-103, Annotated Code of Maryland.
Remote Access	Any access to ITCD's corporate network through a non-ITCD controlled network, device, or medium.
Sensitive	Information that, if divulged, could compromise or endanger the citizens or assets of DPSCS.
SNMP	Simple Network Management Protocol is used in network management systems to monitor network-attached devices for conditions that warrant administrative attention.
Split-tunneling	Simultaneous direct access to a non-ITCD network (such as the Internet, or a home network) from a remote device (PC, PDA, WAP phone, etc.) while connected into ITCD's corporate network via a VPN tunnel. VPN Virtual Private Network (VPN) is a method for accessing a remote network via "tunneling" through the Internet.
SSH	Secure Shell is a network protocol that allows data to be exchanged using a secure channel between two computers.
SSID	Service Set Identifier is a name used to identify the particular 802.11 wireless LAN to which a client wants to attach.
Wi-Fi Certified	Wi-Fi CERTIFIED is a program for testing products to the 802.11 industry standards for interoperability, security, easy installation, and reliability



Criminal Justice Information Services (CJIS) Security Policy

Version 5.0
2/09/2011

CJISD-ITS-DOC-08140-5.0



Prepared by:
CJIS Information Security Officer

Approved by:
CJIS Advisory Policy Board

EXECUTIVE SUMMARY

Law enforcement needs timely and secure access to services that provide data wherever and whenever for stopping and reducing crime. In response to these needs, the Advisory Policy Board (APB) recommended to the Federal Bureau of Investigation (FBI) that the Criminal Justice Information Services (CJIS) Division authorize the expansion of the existing security management structure in 1998. Administered through a shared management philosophy, the CJIS Security Policy contains information security requirements, guidelines, and agreements reflecting the will of law enforcement and criminal justice agencies for protecting the sources, transmission, storage, and generation of Criminal Justice Information (CJI). The Federal Information Security Management Act of 2002 provides further legal basis for the APB approved management, operational, and technical security requirements mandated to protect CJI and by extension the hardware, software and infrastructure required to enable the services provided by the criminal justice community.

The essential premise of the CJIS Security Policy is to provide appropriate controls to protect the full lifecycle of CJI, whether at rest or in transit. The CJIS Security Policy provides guidance for the creation, viewing, modification, transmission, dissemination, storage, and destruction of CJI data. This policy applies to every individual—contractor, private entity, noncriminal justice agency representative, or member of a criminal justice entity—with access to, or who operate in support of, criminal justice services and information.

The CJIS Security Policy integrates Presidential directives, Federal laws, FBI directives and the criminal justice community's APB decisions along with nationally recognized guidance from the National Institute of Standards and Technology. The Policy is presented at both strategic and tactical levels and is periodically updated to reflect the security requirements of evolving business models. The policy features modular sections enabling more frequent updates to address emerging threats and new security measures. The provided security criterion assists agencies with designing and implementing systems to meet a uniform level of risk and security protection while enabling agencies the latitude to institute more stringent security requirements and controls based on their business model and local needs.

The CJIS Security Policy strengthens the partnership between the FBI and CJIS Systems Agencies (CSA), including, in those states with separate authorities, the State Identification Bureaus. Further, as use of criminal history record information for noncriminal justice purposes continues to expand, the CJIS Security Policy becomes increasingly important in guiding the National Crime Prevention and Privacy Compact Council and State Compact Officers in the secure exchange of criminal justice records.

The policy describes the vision and captures the security concepts that set the policies, protections, roles, and responsibilities with minimal impact from changes in technology. The policy empowers CSAs with the insight and ability to tune their security programs according to their needs, budgets, and resource constraints while remaining compliant with the baseline level of security set forth in this policy. The CJIS Security Policy provides a secure framework of laws, standards, and elements of published and vetted policies for accomplishing the mission across the broad spectrum of the criminal justice and noncriminal justice communities.

APPROVALS


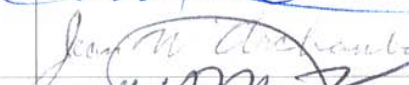



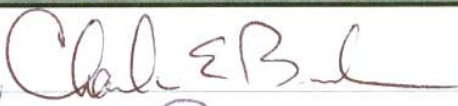
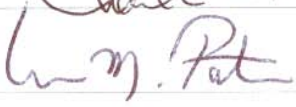

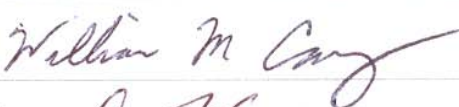

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Mr. William G. McKinsey, Chief, Information Technology Management Section	 12/11/10
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1 INTRODUCTION

This section details the purpose of this document, its scope, relationship to other information security policies, and its distribution constraints.

1.1 Purpose

The CJIS Security Policy provides Criminal Justice Agencies (CJA) and Noncriminal Justice Agencies (NCJA) with a minimum set of security requirements for the access to Federal Bureau of Investigation (FBI) Criminal Justice Information Services (CJIS) Division systems and information and to protect and safeguard Criminal Justice Information (CJI). This minimum standard of security requirements ensures continuity of information protection. The essential premise of the CJIS Security Policy is to provide the appropriate controls to protect CJI, from creation through dissemination; whether at rest or in transit.

The CJIS Security Policy integrates Presidential directives, Federal laws, FBI directives, the criminal justice community's Advisory Policy Board (APB) decisions along with nationally recognized guidance from the National Institute of Standards and Technology (NIST) and the National Crime Prevention and Privacy Compact Council (Compact Council).

1.2 Scope

At the consent of the advisory process, and taking into consideration Federal law and state statutes, the CJIS Security Policy applies to all entities with access to, or who operate in support of, FBI CJIS Division's services and information. The CJIS Security Policy provides minimum security requirements associated with the creation, viewing, modification, transmission, dissemination, storage, or destruction of CJI.

Entities engaged in the interstate exchange of CJI data for noncriminal justice purposes are also governed by the standards and rules promulgated by the Compact Council.

1.3 Relationship to Local Security Policy and Other Policies

The CJIS Security Policy may be used as the sole security policy for the agency. The local agency may complement the CJIS Security Policy with a local policy, or the agency may develop their own stand-alone security policy; however, the CJIS Security Policy shall always be the minimum standard and local policy may augment, or increase the standards, but shall not detract from the CJIS Security Policy standards.

The agency shall develop, disseminate, and maintain formal, documented procedures to facilitate the implementation of the CJIS Security Policy and, where applicable, the local security policy. The policies and procedures shall be consistent with applicable laws, Executive Orders, directives, policies, regulations, standards, and guidance. Procedures developed for CJIS Security Policy areas can be developed for the security program in general, and for a particular information system, when required.

This document is a compendium of applicable policies in providing guidance on the minimum security controls and requirements needed to access FBI CJIS information and services. These policies include Presidential directives, Federal laws, FBI directives and the criminal justice community's APB decisions. State, local, and Tribal CJA may implement more stringent

policies and requirements. Appendix I contains the references while Appendix E lists the security forums and organizational entities referenced in this document.

1.4 Terminology Used in This Document

The following terms are used interchangeably throughout this document:

- **Agency and Organization:** The two terms in this document refer to any entity that submits or receives information, by any means, to/from FBI CJIS systems or services.
- **Information and Data:** Both terms refer to CJI.
- **System, Information System, Service, or named applications like NCIC:** all refer to connections to the FBI's criminal justice information repositories and the equipment used to establish said connections.

Appendix A and B provide an extensive list of the terms and acronyms.

1.5 Distribution of the CJIS Security Policy

The CJIS Security Policy is a publically available document and may be posted and shared without restrictions.

2 CJIS SECURITY POLICY APPROACH

The CJIS Security Policy represents the shared responsibility between FBI CJIS, CJIS Systems Agency (CSA), and the State Identification Bureaus (SIB) of the lawful use and appropriate protection of CJJ. The policy provides a baseline of security requirements for current and planned services and sets a minimum standard for new initiatives.

2.1 CJIS Security Policy Vision Statement

The executive summary of this document describes the vision in terms of business needs for confidentiality, integrity, and availability of information. The APB collaborates with the FBI CJIS Division to ensure that the policy remains updated to meet ever-changing business, technology and security needs.

2.2 Architecture Independent

Due to advancing technology and evolving business models, the FBI CJIS Division is transitioning from legacy stovepipe systems and moving toward a flexible services approach. Systems such as National Crime Information Center (NCIC), National Instant Criminal Background Check System (NICS), and Integrated Automated Fingerprint Identification System (IAFIS) will continue to evolve and may no longer retain their current system platforms, hardware, or program name. However, the data and services provided by these systems will remain stable.

The CJIS Security Policy looks at the data (information), services, and protection controls that apply regardless of the implementation architecture. Architectural independence is not intended to lessen the importance of systems, but provide for the replacement of one technology with another while ensuring the controls required to protect the information remain constant. This objective and conceptual focus on security policy areas provide the guidance and standards while avoiding the impact of the constantly changing landscape of technical innovations. The architectural independence of the policy provides agencies with the flexibility for tuning their information security infrastructure and policies to reflect their own environments.

2.3 Risk Versus Realism

Every “shall” statement contained within the CJIS Security Policy has been scrutinized for risk versus the reality of resource constraints and real-world application. The purpose of the CJIS Security Policy is to establish the minimum security requirements; therefore, individual agencies are encouraged to implement additional controls to address agency specific risks.

3 ROLES AND RESPONSIBILITIES

3.1 Shared Management Philosophy

In the scope of information security, the FBI CJIS Division employs a shared management philosophy with federal, state, local, and tribal law enforcement agencies. Although an advisory policy board for the NCIC has existed since 1969, the Director of the FBI established the CJIS APB in March 1994 to enable appropriate input and recommend policy with respect to CJIS services. Through the APB and its Subcommittees and Working Groups, consideration is given to the needs of the criminal justice and law enforcement community regarding public policy, statutory and privacy aspects, as well as national security relative to CJIS systems and information. The Advisory Process represents federal, state, local, and tribal law enforcement and criminal justice agencies throughout the United States, its territories, and Canada.

The FBI has a similar relationship with the Compact Council, which governs the interstate exchange of criminal history records for noncriminal justice purposes. The Compact Council is mandated by federal law to promulgate rules and procedures for the use of the Interstate Identification Index (III) for noncriminal justice purposes. To meet that responsibility, the Compact Council depends on the CJIS Security Policy as the definitive source for standards defining the security and privacy of records exchanged with noncriminal justice practitioners.

3.2 Roles and Responsibilities for Agencies and Parties

It is the responsibility of all agencies covered under this policy to ensure the protection of CJI between the FBI CJIS Division and its user community. The following figure provides an abstract representation of the strategic functions and roles such as governance and operations.

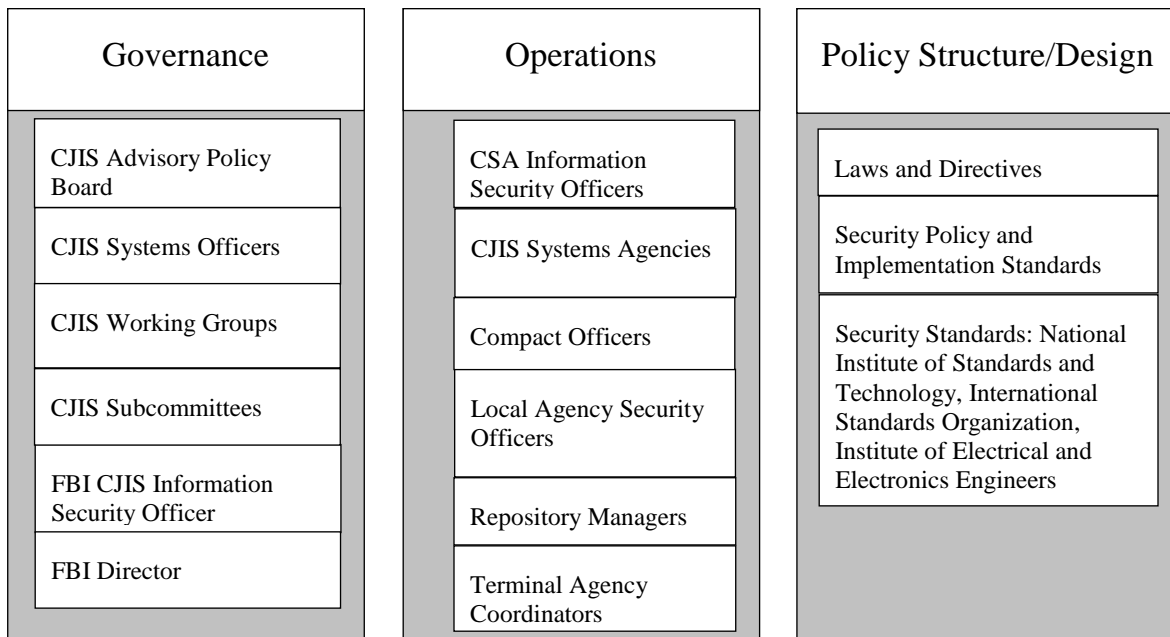


Figure 1 - Overview Diagram of Strategic Functions and Policy Components

This section provides a description of the following entities and roles:

1. CJIS Systems Agency.
2. CJIS Systems Officer.
3. Terminal Agency Coordinator.
4. Criminal Justice Agency.
5. Noncriminal Justice Agency.
6. Contracting Government Agency.
7. Agency Coordinator.
8. CJIS Systems Agency Information Security Officer.
9. Local Agency Security Officer.
10. FBI CJIS Division Information Security Officer.
11. Repository Manager.
12. Compact Officer.

3.2.1 CJIS Systems Agencies (CSA)

The CSA is responsible for establishing and administering an information technology security program throughout the CSA's user community, to include the local levels. The head of each CSA shall appoint a CJIS Systems Officer (CSO). The CSA may impose more stringent protection measures than outlined in this document. Such decisions shall be documented and kept current.

3.2.2 CJIS Systems Officer (CSO)

The CSO is an individual located within the CSA responsible for the administration of the CJIS network for the CSA. Pursuant to The Bylaws for the CJIS Advisory Policy Board and Working Groups, the role of CSO shall not be outsourced. The CSO may delegate responsibilities to subordinate agencies. The CSO shall set, maintain, and enforce the following:

1. Standards for the selection, supervision, and separation of personnel who have access to CJI.
2. Policy governing the operation of computers, access devices, circuits, hubs, routers, firewalls, and other components that comprise and support a telecommunications network and related CJIS systems used to process, store, or transmit CJI, guaranteeing the priority, confidentiality, integrity, and availability of service needed by the criminal justice community.
 - a. Ensure appropriate use, enforce system discipline, and ensure CJIS Division operating procedures are followed by all users of the respective services and information.
 - b. Ensure state/federal agency compliance with policies approved by the APB and adopted by the FBI.

- c. Ensure the appointment of the CSA ISO and determine the extent of authority to the CSA ISO.
 - d. The CSO, or designee, shall ensure that a Terminal Agency Coordinator (TAC) is designated within each agency that has devices accessing CJIS systems.
 - e. Ensure each agency having access to CJI has someone designated as the Local Agency Security Officer.
 - f. Approve access to FBI CJIS systems.
 - g. Assume ultimate responsibility for managing the security of CJIS systems within their state and/or agency.
 - h. Perform other related duties outlined by the user agreements with the FBI CJIS Division.
3. Outsourcing of Criminal Justice Functions
- a. Responsibility for the management of the approved security requirements shall remain with the CJA. Security control includes the authority to enforce the standards for the selection, supervision, and separation of personnel who have access to CJI; set and enforce policy governing the operation of computers, circuits, and telecommunications terminals used to process, store, or transmit CJI; and to guarantee the priority service needed by the criminal justice community.
 - b. Responsibility for the management control of network security shall remain with the CJA. Management control of network security includes the authority to enforce the standards for the selection, supervision, and separation of personnel who have access to CJI; set and enforce policy governing the operation of circuits and network equipment used to transmit CJIS data; and to guarantee the priority service as determined by the criminal justice community.

3.2.3 Terminal Agency Coordinator (TAC)

The TAC serves as the point-of-contact at the local agency for matters relating to CJIS information access. The TAC administers CJIS systems programs within the local agency and oversees the agency's compliance with CJIS systems policies.

3.2.4 Criminal Justice Agency (CJA)

A CJA is defined as a court, a governmental agency, or any subunit of a governmental agency which performs the administration of criminal justice pursuant to a statute or executive order and which allocates a substantial part of its annual budget to the administration of criminal justice. State and federal Inspectors General Offices are included.

3.2.5 Noncriminal Justice Agency (NCJA)

A NCJA is defined (for the purposes of access to CJI) as an entity or any subunit thereof that provides services primarily for purposes other than the administration of criminal justice.

3.2.6 Contracting Government Agency (CGA)

A CGA is a government agency, whether a CJA or a NCJA, that enters into an agreement with a private contractor subject to the CJIS Security Addendum. The CGA entering into an agreement with a contractor is to appoint an agency coordinator.

3.2.7 Agency Coordinator (AC)

An AC is a staff member of the CGA who manages the agreement between the Contractor and agency. The AC shall be responsible for the supervision and integrity of the system, training and continuing education of employees and operators, scheduling of initial training and testing, and certification testing and all required reports by NCIC. The AC shall:

1. Understand the communications, records capabilities, and needs of the Contractor which is accessing federal and state records through or because of its relationship with the CGA.
2. Participate in related meetings and provide input and comments for system improvement.
3. Receive information from the CGA (e.g., system updates) and disseminate it to appropriate Contractor employees.
4. Maintain and update manuals applicable to the effectuation of the agreement, and provide them to the Contractor.
5. Maintain up-to-date records of Contractor's employees who access the system, including name, date of birth, social security number, date fingerprint card(s) submitted, date security clearance issued, and date initially trained, tested, certified or recertified (if applicable).
6. Train or ensure the training of Contractor personnel. If Contractor personnel access NCIC, schedule the operators for testing or a certification exam with the CSA staff, or AC staff with permission from the CSA staff. Schedule new operators for the certification exam within six (6) months of assignment. Schedule certified operators for biennial re-certification testing within thirty (30) days prior to the expiration of certification. Schedule operators for other mandated class.
7. The AC will not permit an untrained/untested or non-certified Contractor employee to access CJI or systems supporting CJI where access to CJI can be gained.
8. Where appropriate, ensure compliance by the Contractor with NCIC validation requirements.
9. Provide completed applicant fingerprint cards on each Contractor employee who accesses the system to the CJA (or, where appropriate, CSA) for criminal background investigation prior to such employee accessing the system.
10. Any other responsibility for the AC promulgated by the FBI.

3.2.8 CJIS System Agency Information Security Officer (CSA ISO)

The CSA ISO shall:

1. Serve as the security point of contact (POC) to the FBI CJIS Division ISO.

2. Document technical compliance with the CJIS Security Policy with the goal to assure the confidentiality, integrity, and availability of criminal justice information to the user community throughout the CSA's user community, to include the local level.
3. Document and provide assistance for implementing the security-related controls for the Interface Agency and its users.
4. Establish a security incident response and reporting procedure to discover, investigate, document, and report to the CSA, the affected criminal justice agency, and the FBI CJIS Division ISO major incidents that significantly endanger the security or integrity of CJI.

3.2.9 Local Agency Security Officer (LASO)

Each LASO shall:

1. Identify who is using the CSA approved hardware, software, and firmware and ensure no unauthorized individuals or processes have access to the same.
2. Identify and document how the equipment is connected to the state system.
3. Ensure that personnel security screening procedures are being followed as stated in this policy.
4. Ensure the approved and appropriate security measures are in place and working as expected.
5. Support policy compliance and ensure CSA ISO is promptly informed of security incidents.

3.2.10 FBI CJIS Division Information Security Officer (FBI CJIS ISO)

The FBI CJIS ISO shall:

1. Maintain the CJIS Security Policy.
2. Disseminate the FBI Director approved CJIS Security Policy.
3. Serve as a liaison with the CSA's ISO and with other personnel across the CJIS community and in this regard provide technical guidance as to the intent and implementation of operational and technical policy issues.
4. Serve as a point-of-contact (POC) for computer incident notification and distribution of security alerts to the CSOs and ISOs.
5. Assist with developing audit compliance guidelines as well as identifying and reconciling security-related issues.
6. Develop and participate in information security training programs for the CSOs and ISOs, and provide a means by which to acquire feedback to measure the effectiveness and success of such training.
7. Maintain a current ISO homepage on the Law Enforcement Online (LEO) network and keep the CSOs and ISOs updated on pertinent information via the iso@leo.gov email address.

3.2.11 Repository Manager

The State Identification Bureau (SIB) Chief, i.e. Repository Manager, is the designated manager of the agency having oversight responsibility for a state's fingerprint identification services. If both state fingerprint identification services and CJIS systems control are managed within the same state agency, the SIB Chief and CSO may be the same person.

3.2.12 Compact Officer

Pursuant to the National Crime Prevention and Privacy Compact, each party state shall appoint a Compact Officer who shall ensure that Compact provisions and rules, procedures, and standards established by the Compact Council are complied with in their respective state.

4 CRIMINAL JUSTICE AND PERSONALLY IDENTIFIABLE INFORMATION

4.1 Criminal Justice Information (CJI)

Criminal Justice Information is the term used to refer to all of the FBI CJIS provided data necessary for law enforcement and civil agencies to perform their missions including, but not limited to biometric, identity history, biographic, property, and case/incident history data. The following categories of CJI describe the various data sets housed by the FBI CJIS architecture:

1. **Biometric Data**—data derived from one or more intrinsic physical or behavioral traits of humans typically for the purpose of uniquely identifying individuals from within a population. Used to identify individuals, to include: fingerprints, palm prints, iris scans, and facial recognition data.
2. **Identity History Data**—textual data that corresponds with an individual’s biometric data, providing a history of criminal and/or civil events for the identified individual.
3. **Biographic Data**—information about individuals associated with a unique case, and not necessarily connected to identity data. Biographic data does not provide a history of an individual, only information related to a unique case.
4. **Property Data**—information about vehicles and property associated with crime.
5. **Case/Incident History**—information about the history of criminal incidents.

The intent of the CJIS Security Policy is to ensure the protection of the aforementioned CJI until such time as the information is either released to the public via authorized dissemination (e.g. within a court system or when presented in crime reports data), or is purged or destroyed in accordance with applicable record retention rules.

4.1.1 Criminal History Record Information (CHRI)

Criminal History Record Information (CHRI), sometimes informally referred to as “restricted data”, is a subset of CJI. Due to its comparatively sensitive nature, additional controls are required for the access, use and dissemination of CHRI. In addition to the dissemination restrictions outlined below, Title 28, Part 20, Code of Federal Regulations (CFR), defines CHRI and provides the regulatory guidance for dissemination of CHRI. While the CJIS Security Policy attempts to be architecturally independent, the III and the NCIC are specifically identified in Title 28, Part 20, CFR, and the NCIC Operating Manual, as associated with CHRI.

4.2 Access, Use and Dissemination of Criminal History Record Information (CHRI) and NCIC Hot File Information

This section describes the requirements for the access, use and dissemination of CHRI and NCIC hot file information.

4.2.1 Terminology

Information obtained from the III is considered CHRI. Proper access to, and use and dissemination of, data from these files shall be consistent with the use and dissemination policies

concerning the III described in Title 28, Part 20, CFR, and the NCIC Operating Manual. The following files shall be protected as CHRI:

1. Gang File.
2. Known or Appropriately Suspected Terrorist File.
3. Convicted Persons on Supervised Release File.
4. Immigration Violator File (formerly the Deported Felon File).
5. National Sex Offender Registry File.
6. Historical Protection Order File of the NCIC.
7. Identity Theft File.

The remaining NCIC files are considered “hot files.”

4.2.2 Proper Access, Use, and Dissemination

4.2.2.1 Proper Use of CHRI

The III shall be accessed only for an authorized purpose. Further, CHRI shall only be used for an authorized purpose consistent with the purpose for which III was accessed. Dissemination to another agency is authorized if (a) the other agency is an Authorized Recipient of such information and is being serviced by the accessing agency, or (b) the other agency is performing personnel and appointment functions for criminal justice employment applicants.

4.2.2.2 Proper Use of Hot File Information

4.2.2.2.1 Use for Official Purposes

NCIC hot files may be accessed for any authorized purpose consistent with the inquiring agency’s responsibility. Information obtained may be re-disseminated to (a) other government agencies or (b) private entities authorized by law to receive such information for any purpose consistent with their responsibilities.

4.2.2.2.2 Access and Dissemination for Other Authorized Purposes

NCIC hot files may be accessed for other purposes consistent with the resources of the inquiring agency; however, requests for bulk data are discouraged. Information derived from national hot file records for other than law enforcement purposes can be used by authorized criminal justice personnel only to confirm the status of a person or article (i.e., wanted or stolen). An inquiring agency is authorized to charge a nominal administrative fee for such service. The commercial dissemination of hot file information is prohibited.

4.2.2.2.3 CSO Authority in Other Circumstances

If no federal, state or local law or policy prohibition exists, the CSO may exercise discretion to approve or deny dissemination of hot file information.

4.2.3 Storage

When CHRI is stored, agencies shall establish appropriate administrative, technical and physical safeguards to ensure the security and confidentiality of the information. These records shall be stored for extended periods only when they are key elements for the integrity and/or utility of case files and/or criminal record files. See section 5.9 for physical security controls.

4.2.4 Justification and Penalties

4.2.4.1 Justification

In addition to the use of purpose codes and logging information, all users shall provide a reason for all III inquiries whenever requested by NCIC System Managers, CSAs, local agency administrators, or their representatives.

4.2.4.2 Penalties

Improper access, use or dissemination of CHRI and Hot File information is serious and may result in administrative sanctions including, but not limited to, termination of services and state and federal criminal penalties.

4.3 Personally Identifiable Information (PII)

For the purposes of this document, PII is information which can be used to distinguish or trace an individual's identity, such as name, social security number, or biometric records, alone or when combined with other personal or identifying information which is linked or linkable to a specific individual, such as date and place of birth, or mother's maiden name. Any FBI CJIS provided data maintained by an agency, including but not limited to, education, financial transactions, medical history, and criminal or employment history may include PII. A criminal history record for example inherently contains PII as would an N-DEX case file.

PII shall be extracted from CJI for the purpose of official business only. Agencies shall develop policies, based on state and local privacy rules, to ensure appropriate controls are applied when handling PII extracted from CJI. Due to the expansive nature of PII, this policy does not specify auditing, logging, or personnel security requirements associated with the life cycle of PII.

5 POLICY AND IMPLEMENTATION

The policy areas focus upon the data and services that the FBI CJIS Division exchanges and provides to the criminal justice community and its partners. Each policy area provides both strategic reasoning and tactical implementation requirements and standards.

While the major theme of the policy areas is concerned with electronic exchange directly with the FBI, it is understood that further dissemination of CJI to Authorized Recipients by various means (hard copy, e-mail, web posting, etc.) constitutes a significant portion of CJI exchanges. Regardless of its form, use, or method of dissemination, CJI requires protection throughout its life.

Not every consumer of FBI CJIS services will encounter all of the policy areas therefore the circumstances of applicability are based on individual agency/entity configurations and usage. Use cases within each of the policy areas will help users relate the policy to their own agency circumstances. The policy areas are:

- Policy Area 1—Information Exchange Agreements
- Policy Area 2—Security Awareness Training
- Policy Area 3—Incident Response
- Policy Area 4—Auditing and Accountability
- Policy Area 5—Access Control
- Policy Area 6—Identification and Authentication
- Policy Area 7—Configuration Management
- Policy Area 8—Media Protection
- Policy Area 9—Physical Protection
- Policy Area 10—Systems and Communications Protection and Information Integrity
- Policy Area 11—Formal Audits
- Policy Area 12—Personnel Security

5.1 Policy Area 1: Information Exchange Agreements

The information shared through communication mediums shall be protected with appropriate security safeguards. The agreements established by entities sharing information across systems and communications mediums are vital to ensuring all parties fully understand and agree to a set of security standards.

5.1.1 Information Exchange

Before exchanging CJI, agencies shall put formal agreements in place that specify security controls. The exchange of information may take several forms including electronic mail, instant messages, web services, facsimile, hard copy, and information systems sending, receiving and storing CJI.

Information exchange agreements outline the roles, responsibilities, and data ownership between agencies and any external parties. Information exchange agreements for agencies sharing CJI data that is sent to and/or received from the FBI CJIS shall specify the security controls and conditions described in this document.

Information exchange agreements shall be supported by documentation committing both parties to the terms of information exchange. As described in subsequent sections, different agreements and policies apply, depending on whether the parties involved are CJAs or NCJAs. See Appendix D for examples of Information Exchange Agreements.

There may be instances, on an ad-hoc basis, where CJI is authorized for further dissemination to Authorized Recipients not covered by an information exchange agreement with the releasing agency. In these instances the dissemination of CJI is considered to be secondary dissemination. See Section 5.1.3 for secondary dissemination guidance.

5.1.1.1 Information Handling

Procedures for handling and storage of information shall be established to protect that information from unauthorized disclosure, alteration or misuse. Using the requirements in this policy as a starting point, the procedures shall apply to the handling, processing, storing, and communication of CJI. These procedures apply to the exchange of CJI no matter the form of exchange.

The policies for information handling and protection also apply to using CJI shared with or received from FBI CJIS for noncriminal justice purposes. In general, a noncriminal justice purpose includes the use of criminal history records for purposes authorized by federal or state law other than purposes relating to the administration of criminal justice, including – but not limited to - employment suitability, licensing determinations, immigration and naturalization matters, and national security clearances.

5.1.1.2 State and Federal Agency User Agreements

Each CSA head or SIB Chief shall execute a signed written user agreement with the FBI CJIS Division stating their willingness to demonstrate conformity with this policy before accessing and participating in CJIS records information programs. This agreement shall include the standards and sanctions governing utilization of CJIS systems. As coordinated through the particular CSA or SIB Chief, each Interface Agency shall also allow the FBI to periodically test

the ability to penetrate the FBI's network through the external network connection or system per authorization of Department of Justice (DOJ) Order 2640.2F. All user agreements with the FBI CJIS Division shall be coordinated with the CSA head.

5.1.1.3 Criminal Justice Agency User Agreements

Any CJA receiving access to FBI CJIS data shall enter into a signed written agreement with the appropriate signatory authority of the CSA providing the access. The written agreement shall specify the FBI CJIS systems and services to which the agency will have access, and the FBI CJIS Division policies to which the agency must adhere. These agreements shall include:

1. Audit.
2. Dissemination.
3. Hit confirmation.
4. Logging.
5. Quality Assurance (QA).
6. Screening (Pre-Employment).
7. Security.
8. Timeliness.
9. Training.
10. Use of the system.
11. Validation.

5.1.1.4 Inter-Agency and Management Control Agreements

A NCJA (government) designated to perform criminal justice functions for a CJA shall be eligible for access to the CJI. Access shall be permitted when such designation is authorized pursuant to Executive Order, statute, regulation, or inter-agency agreement. The NCJA shall sign and execute a management control agreement (MCA) with the CJA, which stipulates management control of the criminal justice function remains solely with the CJA. The MCA may be a separate document or included with the language of an inter-agency agreement. An example of an NCJA (government) is a city IT department.

5.1.1.5 Private Contractor User Agreements and CJIS Security Addendum

The CJIS Security Addendum is a uniform addendum to an agreement between the government agency and a private contractor, approved by the Attorney General of the United States, which specifically authorizes access to criminal history record information, limits the use of the information to the purposes for which it is provided, ensures the security and confidentiality of the information is consistent with existing regulations and the CJIS Security Policy, provides for sanctions, and contains such other provisions as the Attorney General may require.

Private contractors who perform criminal justice functions shall meet the same training and certification criteria required by governmental agencies performing a similar function, and shall be subject to the same extent of audit review as are local user agencies. All private contractors who perform criminal justice functions shall acknowledge, via signing of the CJIS Security

Addendum Certification page, and abide by all aspects of the CJIS Security Addendum. The CJIS Security Addendum is presented in Appendix H. Modifications to the CJIS Security Addendum shall be enacted only by the FBI.

1. Private contractors designated to perform criminal justice functions for a CJA shall be eligible for access to CJI. Access shall be permitted pursuant to an agreement which specifically identifies the agency's purpose and scope of providing services for the administration of criminal justice. The agreement between the CJA and the private contractor shall incorporate the CJIS Security Addendum approved by the Director of the FBI, acting for the U.S. Attorney General, as referenced in Title 28 CFR 20.33 (a)(7).
2. Private contractors designated to perform criminal justice functions on behalf of a NCJA (government) shall be eligible for access to CJI. Access shall be permitted pursuant to an agreement which specifically identifies the agency's purpose and scope of providing services for the administration of criminal justice. The agreement between the NCJA and the private contractor shall incorporate the CJIS Security Addendum approved by the Director of the FBI, acting for the U.S. Attorney General, as referenced in Title 28 CFR 20.33 (a)(7).

5.1.1.6 Agency User Agreements

A NCJA (public) designated to request civil fingerprint-based background checks, with the full consent of the individual to whom a background check is taking place, for noncriminal justice functions, shall be eligible for access to CJI. Access shall be permitted when such designation is authorized pursuant to federal law or state statute approved by the U.S. Attorney General. An NCJA (public) receiving access to FBI CJIS data shall enter into a signed written agreement with the appropriate signatory authority of the CSA/SIB providing the access. An example of a NCJA (public) is a county school board.

A NCJA (private) designated to request civil fingerprint-based background checks, with the full consent of the individual to whom a background check is taking place, for noncriminal justice functions, shall be eligible for access to CJI. Access shall be permitted when such designation is authorized pursuant to federal law or state statute approved by the U.S. Attorney General. An NCJA (private) receiving access to FBI CJIS data shall enter into a signed written agreement with the appropriate signatory authority of the CSA/SIB providing the access. An example of a NCJA (private) is a local bank.

All NCJAs accessing CJI shall be subject to all pertinent areas of the CJIS Security Policy (see Appendix J for supplemental guidance). Each NCJA that directly accesses FBI CJI shall also allow the FBI to periodically test the ability to penetrate the FBI's network through the external network connection or system per authorization of Department of Justice (DOJ) Order 2640.2F.

5.1.1.7 Security and Management Control Outsourcing Standard

Channelers designated to request civil fingerprint-based background checks or noncriminal justice ancillary functions on behalf of a NCJA (public) or NCJA (private) for noncriminal justice functions shall be eligible for access to CJI. Access shall be permitted when such designation is authorized pursuant to federal law or state statute approved by the U.S. Attorney General. All Channelers accessing CJI shall be subject to the terms and conditions described in

the Compact Council Security and Management Control Outsourcing Standard. Each Channeler that directly accesses CJI shall also allow the FBI to conduct periodic penetration testing.

Channelers leveraging CJI to perform civil functions on behalf of an Authorized Recipient shall meet the same training and certification criteria required by governmental agencies performing a similar function, and shall be subject to the same extent of audit review as are local user agencies.

5.1.2 Monitoring, Review, and Delivery of Services

As specified in the inter-agency agreements, MCAs, and contractual agreements with private contractors, the services, reports and records provided by the service provider shall be regularly monitored and reviewed. The CJA shall maintain sufficient overall control and visibility into all security aspects to include, but not limited to, identification of vulnerabilities and information security incident reporting/response. The incident reporting/response process used by the service provider shall conform to the incident reporting/response specifications provided in this policy.

5.1.2.1 Managing Changes to Service Providers

Any changes to services provided by a service provider shall be managed by the CJA. This includes provision of services, changes to existing services, and new services. Evaluation of the risks to the agency shall be undertaken based on the criticality of the data, system, and the impact of the change.

5.1.3 Secondary Dissemination

If CHRI is released to another authorized agency, and that agency was not part of the releasing agency's primary information exchange agreement(s), the releasing agency shall log such dissemination.

5.1.4 References/Citations/Directives

Appendix I contains all of the references used in this policy and may contain additional sources that apply to this section.

Figure 2 - Information Exchange Agreements Implemented by a Local Police Department

A local police department executed a Memorandum of Understanding (MOU) for the interface with their state CSA. The local police department also executed an MOU (which included an MCA) with the county information technology (IT) department for the day-to-day operations of their criminal-justice infrastructure. The county IT department, in turn, outsourced operations to a local vendor who signed the CJIS Security Addendum.

5.2 Policy Area 2: Security Awareness Training

Basic security awareness training shall be required within six months of initial assignment, and biennially thereafter, for all personnel who have access to CJI. The CSO/SIB may accept the documentation of the completion of security awareness training from another agency. Accepting such documentation from another agency means that the accepting agency assumes the risk that the training may not meet a particular requirement or process required by federal, state, or local laws.

5.2.1 Awareness Topics

A significant number of topics can be mentioned and briefly discussed in any awareness session or campaign. To help further the development and implementation of individual agency security awareness training programs the following baseline guidance is provided.

5.2.1.1 All Personnel

At a minimum, the following topics shall be addressed as baseline security awareness training for all authorized personnel with access to CJI:

1. Rules that describe responsibilities and expected behavior with regard to CJI usage.
2. Implications of noncompliance.
3. Incident response (Points of contact; Individual actions).
4. Media protection.
5. Visitor control and physical access to spaces—discuss applicable physical security policy and procedures, e.g., challenge strangers, report unusual activity.
6. Protect information subject to confidentiality concerns — hardcopy through destruction.
7. Proper handling and marking of CJI.
8. Threats, vulnerabilities, and risks associated with handling of CJI.
9. Dissemination and destruction.

5.2.1.2 Personnel with Physical and Logical Access

In addition to 5.2.1.1 above, the following topics, at a minimum, shall be addressed as baseline security awareness training for all authorized personnel with both physical and logical access to CJI:

1. Rules that describe responsibilities and expected behavior with regard to information system usage.
2. Password usage and management—including creation, frequency of changes, and protection.
3. Protection from viruses, worms, Trojan horses, and other malicious code.
4. Unknown e-mail/attachments.
5. Web usage—allowed versus prohibited; monitoring of user activity.

6. Spam.
7. Social engineering.
8. Physical Security—increases in risks to systems and data.
9. Media Protection.
10. Handheld device security issues—address both physical and wireless security issues.
11. Use of encryption and the transmission of sensitive/confidential information over the Internet—address agency policy, procedures, and technical contact for assistance.
12. Laptop security—address both physical and information security issues.
13. Personally owned equipment and software—state whether allowed or not (e.g., copyrights).
14. Access control issues—address least privilege and separation of duties.
15. Individual accountability—explain what this means in the agency.
16. Use of acknowledgement statements—passwords, access to systems and data, personal use and gain.
17. Desktop security—discuss use of screensavers, restricting visitors’ view of information on screen (mitigating “shoulder surfing”), battery backup devices, allowed access to systems.
18. Protect information subject to confidentiality concerns—in systems, archived, on backup media, and until destroyed.
19. Threats, vulnerabilities, and risks associated with accessing CJIS Service systems and services.

5.2.1.3 Personnel with Information Technology Roles

In addition to 5.2.1.1 and 5.2.1.2 above, the following topics at a minimum shall be addressed as baseline security awareness training for all Information Technology personnel (system administrators, security administrators, network administrators, etc.):

1. Protection from viruses, worms, Trojan horses, and other malicious code—scanning, updating definitions.
2. Data backup and storage—centralized or decentralized approach.
3. Timely application of system patches—part of configuration management.
4. Access control measures.
5. Network infrastructure protection measures.

5.2.2 Security Training Records

Records of individual basic security awareness training and specific information system security training shall be documented, kept current, and maintained by the CSO/SIB/Compact Officer. Maintenance of training records can be delegated to the local level.

5.2.3 References/Citations/Directives

Appendix I contains all of the references used in this policy and may contain additional sources that apply to this section.

Figure 3 - Security Awareness Training Implemented by a Local Police Department

A local police department with a staff of 20 sworn law-enforcement officers and 15 support personnel worked with a vendor to develop role-specific security-awareness training, and required all staff to complete this training upon assignment and every two years thereafter. The local police department scheduled the sworn law-enforcement training to coincide with their NCIC certification training. The vendor maintained the training records for the police department's entire staff, and provided reporting to the department to help it ensure compliance with the CJIS Security Policy.

5.3 Policy Area 3: Incident Response

There has been an increase in the number of accidental or malicious computer attacks against both government and private agencies, regardless of whether the systems are high or low profile. Agencies shall: (i) establish an operational incident handling capability for agency information systems that includes adequate preparation, detection, analysis, containment, recovery, and user response activities; (ii) track, document, and report incidents to appropriate agency officials and/or authorities.

ISOs have been identified as the POC on security-related issues for their respective agencies and shall ensure LASOs institute the CSA incident response reporting procedures at the local level. Appendix F contains a sample incident notification letter for use when communicating the details of an incident to the FBI CJIS ISO.

5.3.1 Reporting Information Security Events

The agency shall promptly report incident information to appropriate authorities. Information security events and weaknesses associated with information systems shall be communicated in a manner allowing timely corrective action to be taken. Formal event reporting and escalation procedures shall be in place. Wherever feasible, the agency shall employ automated mechanisms to assist in the reporting of security incidents. All employees, contractors and third party users shall be made aware of the procedures for reporting the different types of event and weakness that might have an impact on the security of agency assets and are required to report any information security events and weaknesses as quickly as possible to the designated point of contact.

5.3.1.1 Reporting Structure and Responsibilities

5.3.1.1.1 FBI CJIS Division Responsibilities

The FBI CJIS Division shall:

1. Manage and maintain the CJIS Division's Computer Security Incident Response Capability (CSIRC).
2. Serve as a central clearinghouse for all reported intrusion incidents, security alerts, bulletins, and other security-related material.
3. Ensure additional resources for all incidents affecting FBI CJIS Division controlled systems as needed.
4. Disseminate prompt advisories of system threats and operating system vulnerabilities to all CSOs and ISOs through the use of the iso@leo.gov e-mail account, to include but not limited to: Product Security Bulletins, Virus Bulletins, and Security Clips.
5. Track all reported incidents and/or trends.
6. Monitor the resolution of all incidents.

5.3.1.1.2 CSA ISO Responsibilities

The CSA ISO shall:

1. Assign individuals in each state, federal, and international law enforcement organization to be the primary point of contact for interfacing with the FBI CJIS Division concerning incident handling and response.
2. Identify individuals who are responsible for reporting incidents within their area of responsibility.
3. Collect incident information from those individuals for coordination and sharing among other organizations that may or may not be affected by the incident.
4. Develop, implement, and maintain internal incident response procedures and coordinate those procedures with other organizations that may or may not be affected.
5. Collect and disseminate all incident-related information received from the Department of Justice (DOJ), FBI CJIS Division, and other entities to the appropriate local law enforcement POCs within their area.
6. Act as a single POC for their jurisdictional area for requesting incident response assistance.

5.3.2 Management of Information Security Incidents

A consistent and effective approach shall be applied to the management of information security incidents. Responsibilities and procedures shall be in place to handle information security events and weaknesses effectively once they have been reported.

5.3.2.1 Incident Handling

The agency shall implement an incident handling capability for security incidents that includes preparation, detection and analysis, containment, eradication, and recovery. Wherever feasible, the agency shall employ automated mechanisms to support the incident handling process.

Incident-related information can be obtained from a variety of sources including, but not limited to, audit monitoring, network monitoring, physical access monitoring, and user/administrator reports. The agency incorporates the lessons learned from ongoing incident handling activities into the incident response procedures and implements the procedures accordingly.

5.3.2.2 Collection of Evidence

Where a follow-up action against a person or agency after an information security incident involves legal action (either civil or criminal), evidence shall be collected, retained, and presented to conform to the rules for evidence laid down in the relevant jurisdiction(s).

5.3.3 Incident Response Training

The agency shall ensure general incident response roles responsibilities are included as part of required security awareness training.

5.3.4 Incident Monitoring

The agency shall track and document information system security incidents on an ongoing basis. The CSA ISO shall maintain completed security incident reporting forms until the subsequent

FBI triennial audit or until legal action (if warranted) is complete; whichever time-frame is greater.

5.3.5 References/Citations/Directives

Appendix I contains all of the references used in this policy and may contain additional sources that apply to this section.

Figure 4 - Incident Response Process Initiated by an Incident in a Local Police Department

A state ISO received a notification from a local police department that suspicious network activity from a known botnet was detected on their network. The state ISO began the process of collecting all pertinent information about this incident, e.g. incident date/time, points-of-contact, systems affected, nature of the incident, actions taken, etc. and requested that the local police department confirm that their malware signatures were up to date. The state ISO contacted both the FBI CJIS ISO and state CSO to relay the preliminary details of this incident. The FBI CJIS ISO instructed the involved parties to continue their investigation and to submit an incident response form once all the information had been gathered. The FBI CJIS ISO contacted the lead for the FBI CSIRC to inform them that an incident response form was forthcoming. The state ISO gathered the remainder of the information from the local police department and submitted a completed incident response form to the FBI CJIS ISO who subsequently provided it to the FBI CSIRC. The FBI CSIRC notified the Department of Justice Computer Incident Response Team (DOJCIRT). The state ISO continued to monitor the situation, passing relevant details to the FBI CJIS ISO, ultimately determining that the botnet was eliminated from the local police department's infrastructure. Subsequent investigations determined that the botnet was restricted to the department's administrative infrastructure and thus no CJI was compromised.

5.4 Policy Area 4: Auditing and Accountability

Agencies shall implement audit and accountability controls to increase the probability of authorized users conforming to a prescribed pattern of behavior. Agencies shall carefully assess the inventory of components that compose their information systems to determine which security controls are applicable to the various components.

Auditing controls are typically applied to the components of an information system that provide auditing capability (servers, etc.) and would not necessarily be applied to every user-level workstation within the agency. As technology advances, more powerful and diverse functionality can be found in such devices as personal digital assistants and cellular telephones, which may require the application of security controls in accordance with an agency assessment of risk.

5.4.1 Auditable Events and Content (Information Systems)

The agency's information system shall generate audit records for defined events. These defined events include identifying significant events which need to be audited as relevant to the security of the information system. The agency shall specify which information system components carry out auditing activities. Auditing activity can affect information system performance and this issue must be considered as a separate factor during the acquisition of information systems.

The agency's information system shall produce, at the application and/or operating system level, audit records containing sufficient information to establish what events occurred, the sources of the events, and the outcomes of the events. The agency shall periodically review and update the list of agency-defined auditable events. In the event an agency does not use an automated system, manual recording of activities shall still take place.

5.4.1.1 Events

The following events shall be logged:

1. Successful and unsuccessful system log-on attempts.
2. Successful and unsuccessful attempts to access, create, write, delete or change permission on a user account, file, directory or other system resource.
3. Successful and unsuccessful attempts to change account passwords.
4. Successful and unsuccessful actions by privileged accounts.
5. Successful and unsuccessful attempts for users to access, modify, or destroy the audit log file.

5.4.1.1.1 Content

The following content shall be included with every audited event:

1. Date and time of the event.
2. The component of the information system (e.g., software component, hardware component) where the event occurred.
3. Type of event.

4. User/subject identity.
5. Outcome (success or failure) of the event.

5.4.2 Response to Audit Processing Failures

The agency's information system shall provide alerts to appropriate agency officials in the event of an audit processing failure. Audit processing failures include, for example: software/hardware errors, failures in the audit capturing mechanisms, and audit storage capacity being reached or exceeded.

5.4.3 Audit Monitoring, Analysis, and Reporting

The responsible management official shall designate an individual or position to review/analyze information system audit records for indications of inappropriate or unusual activity, investigate suspicious activity or suspected violations, to report findings to appropriate officials, and to take necessary actions. Audit review/analysis shall be conducted at a minimum once a week. The frequency of review/analysis should be increased when the volume of an agency's processing indicates an elevated need for audit review. The agency shall increase the level of audit monitoring and analysis activity within the information system whenever there is an indication of increased risk to agency operations, agency assets, or individuals based on law enforcement information, intelligence information, or other credible sources of information.

5.4.4 Time Stamps

The agency's information system shall provide time stamps for use in audit record generation. The time stamps shall include the date and time values generated by the internal system clocks in the audit records. The agency shall synchronize internal information system clocks on an annual basis.

5.4.5 Protection of Audit Information

The agency's information system shall protect audit information and audit tools from modification, deletion and unauthorized access.

5.4.6 Audit Record Retention

The agency shall retain audit records for at least 365 days. Once the minimum retention time period has passed, the agency shall continue to retain audit records until it is determined they are no longer needed for administrative, legal, audit, or other operational purposes. This includes, for example, retention and availability of audit records relative to Freedom of Information Act (FOIA) requests, subpoena, and law enforcement actions.

5.4.7 Logging NCIC and III Transactions

A log shall be maintained for a minimum of one (1) year on all NCIC and III transactions. The III portion of the log shall clearly identify both the operator and the authorized receiving agency. III logs shall also clearly identify the requester and the secondary recipient. The identification on the log shall take the form of a unique identifier that shall remain unique to the individual requester and to the secondary recipient throughout the minimum one year retention period.

5.4.8 Reserved for Future Use

5.4.9 Reserved for Future Use

5.4.10 References/Citations/Directives

Appendix I contains all of the references used in this policy and may contain additional sources that apply to this section.

Figure 5 - Local Police Department's Use of Audit Logs

A state CSO contacted a local police department regarding potentially inappropriate use of CHRI that was retrieved using the local department's ORI. The state CSO requested all relevant information from the police department to reconcile state NCIC and III logs against local police department logs. The police department provided the combination of their CJI processing application's logs with relevant operating system and network infrastructure logs to help verify the identity of the users conducting these queries. The review of these logs substantiated the CSO's suspicion.

5.5 Policy Area 5: Access Control

Access control provides the planning and implementation of mechanisms to restrict reading, writing, processing and transmission of CJIS information and the modification of information systems, applications, services and communication configurations allowing access to CJIS information.

5.5.1 Account Management

The agency shall manage information system accounts, including establishing, activating, modifying, reviewing, disabling, and removing accounts. The agency shall validate information system accounts at least annually and shall document the validation process. The validation and documentation of accounts can be delegated to local agencies.

Account management includes the identification of account types (i.e., individual, group, and system), establishment of conditions for group membership, and assignment of associated authorizations. The agency shall identify authorized users of the information system and specify access rights/privileges. The agency shall grant access to the information system based on:

1. Valid need-to-know/need-to-share that is determined by assigned official duties.
2. Satisfaction of all personnel security criteria.

The agency responsible for account creation shall be notified when:

1. A user's information system usage or need-to-know or need-to-share changes.
2. A user is terminated or transferred or associated accounts are removed, disabled, or otherwise secured.

5.5.2 Access Enforcement

The information system shall enforce assigned authorizations for controlling access to the system and contained information. The information system controls shall restrict access to privileged functions (deployed in hardware, software, and firmware) and security-relevant information to explicitly authorized personnel.

Explicitly authorized personnel include, for example, security administrators, system and network administrators, and other privileged users with access to system control, monitoring, or administration functions (e.g., system administrators, information system security officers, maintainers, system programmers).

Access control policies (e.g., identity-based policies, role-based policies, rule-based policies) and associated access enforcement mechanisms (e.g., access control lists, access control matrices, cryptography) shall be employed by agencies to control access between users (or processes acting on behalf of users) and objects (e.g., devices, files, records, processes, programs, domains) in the information system.

5.5.2.1 Least Privilege

The agency shall approve individual access privileges and shall enforce physical and logical access restrictions associated with changes to the information system; and generate, retain, and review records reflecting all such changes. The agency shall enforce the most restrictive set of

rights/privileges or access needed by users for the performance of specified tasks. The agency shall implement least privilege based on specific duties, operations, or information systems as necessary to mitigate risk to CJI. This limits access to CJI to only authorized personnel with the need and the right to know.

Logs of access privilege changes shall be maintained for a minimum of one year or at least equal to the agency's record retention policy – whichever is greater.

5.5.2.2 System Access Control

Access control mechanisms to enable access to CJI shall be restricted by object (e.g., data set, volumes, files, records) including the ability to read, write, or delete the objects. Access controls shall be in place and operational for all IT systems to:

1. Prevent multiple concurrent active sessions for one user identification, for those applications accessing CJI, unless the agency grants authority based upon operational business needs. Agencies shall document the parameters of the operational business needs for multiple concurrent active sessions.
2. Ensure that only authorized personnel can add, change, or remove component devices, dial-up connections, and remove or alter programs.

5.5.2.3 Access Control Criteria

Agencies shall control access to CJI based on one or more of the following:

1. Job assignment or function (i.e., the role) of the user seeking access.
2. Physical location.
3. Logical location.
4. Network addresses (e.g., users from sites within a given agency may be permitted greater access than those from outside).
5. Time-of-day and day-of-week/month restrictions.

5.5.2.4 Access Control Mechanisms

When setting up access controls, agencies shall use one or more of the following mechanisms:

1. Access Control Lists (ACLs). ACLs are a register of users (including groups, machines, processes) who have been given permission to use a particular object (system resource) and the types of access they have been permitted.
2. Resource Restrictions. Access to specific functions is restricted by never allowing users to request information, functions, or other resources for which they do not have access. Three major types of resource restrictions are: menus, database views, and network devices.
3. Encryption. Encrypted information can only be decrypted, and therefore read, by those possessing the appropriate cryptographic key. While encryption can provide strong access control, it is accompanied by the need for strong key management. If encryption of stored information is employed as an access enforcement mechanism, the

cryptography used is Federal Information Processing Standards (FIPS) 140-2 (as amended) compliant (see section 5.10.1.2 for encryption requirements).

4. Application Level. In addition to controlling access at the information system level, access enforcement mechanisms are employed at the application level to provide increased information security for the agency.

5.5.3 Unsuccessful Login Attempts

Where technically feasible, the system shall enforce a limit of no more than 5 consecutive invalid access attempts by a user (attempting to access CJI or systems with access to CJI). The system shall automatically lock the account/node for a 10 minute time period unless released by an administrator.

5.5.4 System Use Notification

The information system shall display an approved system use notification message, before granting access, informing potential users of various usages and monitoring rules. The system use notification message shall, at a minimum, provide the following information:

1. The user is accessing a restricted information system.
2. System usage may be monitored, recorded, and subject to audit.
3. Unauthorized use of the system is prohibited and may be subject to criminal and/or civil penalties.
4. Use of the system indicates consent to monitoring and recording.

The system use notification message shall provide appropriate privacy and security notices (based on associated privacy and security policies or summaries) and remain on the screen until the user acknowledges the notification and takes explicit actions to log on to the information system.

Privacy and security policies shall be consistent with applicable laws, Executive Orders, directives, policies, regulations, standards, and guidance. System use notification messages can be implemented in the form of warning banners displayed when individuals log in to the information system. For publicly accessible systems: (i) the system use information is available and when appropriate, is displayed before granting access; (ii) any references to monitoring, recording, or auditing are in keeping with privacy accommodations for such systems that generally prohibit those activities; and (iii) the notice given to public users of the information system includes a description of the authorized uses of the system.

5.5.5 Session Lock

The information system shall prevent further access to the system by initiating a session lock after a maximum of 30 minutes of inactivity, and the session lock remains in effect until the user reestablishes access using appropriate identification and authentication procedures. Users shall directly initiate session lock mechanisms to prevent inadvertent viewing when a device is unattended. A session lock is not a substitute for logging out of the information system. In the interest of officer safety, devices that are: (1) part of a police vehicle; or (2) used to perform dispatch functions and located within a physically secure location, are exempt from this requirement. Note: an example of a session lock is a screen saver with password.

5.5.6 Remote Access

The agency shall authorize, monitor, and control all methods of remote access to the information system. Remote access is any temporary access to an agency's information system by a user (or an information system) communicating temporarily through an external, non-agency-controlled network (e.g., the Internet).

The agency shall employ automated mechanisms to facilitate the monitoring and control of remote access methods. The agency shall control all remote accesses through managed access control points. The agency may permit remote access for privileged functions only for compelling operational needs but shall document the rationale for such access in the security plan for the information system.

5.5.6.1 Personally Owned Information Systems

A personally owned information system shall not be authorized to access, process, store or transmit CJI unless the agency has established and documented the specific terms and conditions for personally owned information system usage.

This control does not apply to the use of personally owned information systems to access agency's information systems and information that are intended for public access (e.g., an agency's public website that contains purely public information).

5.5.6.2 Publicly Accessible Computers

Utilizing publicly accessible computers to access, process, store or transmit CJI is prohibited. Publicly accessible computers include but are not limited to: hotel business center computers, convention center computers, public library computers, public kiosk computers, etc.

5.5.7 Wireless Access Restrictions

The agency shall: (i) establish usage restrictions and implementation guidance for wireless technologies; and (ii) authorize, monitor, control wireless access to the information system. Wireless technologies, in the simplest sense, enable one or more devices to communicate without physical connections—without requiring network or peripheral cabling.

Examples of wireless technologies include, but are not limited to: 802.11x, cellular networks, Bluetooth, satellite and microwave. Wireless technologies require at least the minimum security applied to wired technology and, based upon the specific technology, may require some additional security controls as described below.

5.5.7.1 All 802.11x Wireless Protocols

Agencies shall:

1. Perform validation testing to ensure rogue APs (Access Points) do not exist in the 802.11 Wireless Local Area Network (WLAN) and to fully understand the wireless network security posture.
2. Maintain a complete inventory of all Access Points (APs) and 802.11 wireless devices.

3. Place APs in secured areas to prevent unauthorized physical access and user manipulation.
4. Test AP range boundaries to determine the precise extent of the wireless coverage and design the AP wireless coverage to limit the coverage area to only what is needed for operational purposes.
5. Enable user authentication and encryption mechanisms for the management interface of the AP.
6. Ensure that all APs have strong administrative passwords and ensure that all passwords are changed in accordance with section 5.6.2.1.
7. Ensure the reset function on APs is used only when needed and is only invoked by authorized personnel. Restore the APs to the latest security settings, when the reset functions are used, to ensure the factory default settings are not utilized.
8. Change the default service set identifier (SSID) in the APs. Disable the broadcast SSID feature so that the client SSID must match that of the AP. Validate that the SSID character string does not contain any agency identifiable information (division, department, street, etc.) or services.
9. Enable all security features of the wireless product, including the cryptographic authentication, firewall, and other privacy features.
10. Ensure that encryption key sizes are at least 128-bits and the default shared keys are replaced by unique keys.
11. Ensure that the ad hoc mode has been disabled unless the environment is such that the risk has been assessed and is tolerable. Note: some products do not allow disabling this feature; use with caution or use different vendor.
12. Disable all nonessential management protocols on the APs and disable hypertext transfer protocol (HTTP) when not needed or protect HTTP access with authentication and encryption.
13. Enable logging (if supported) and review the logs on a recurring basis per local policy. At a minimum logs shall be reviewed monthly.
14. Segregate, virtually (e.g. virtual local area network (VLAN) and ACLs) or physically (e.g. firewalls), the wireless network from the operational wired infrastructure. Limit access between wireless networks and the wired network to only operational needs.
15. When disposing of access points that will no longer be used by the agency, clear access point configuration to prevent disclosure of network configuration, keys, passwords, etc.

5.5.7.2 Legacy 802.11 Protocols

Wired Equivalent Privacy (WEP) and Wi-Fi Protected Access (WPA) cryptographic algorithms, used by all pre-802.11i protocols, do not meet the requirements for FIPS 140-2 and are to be used only if additional security controls are employed.

Agencies shall follow the guidelines below regarding wireless implementation and cases where the WEP and WPA security features are used to provide wireless security in conjunction with the CJIS required minimum encryption specifications.

1. Deploy media access control (MAC) access control lists (ACL); however, MAC ACLs do not represent a strong defense mechanism by themselves because they are transmitted in the clear from WLAN clients to APs so they can be captured easily.
2. Enable WEP/WPA.
3. Ensure the default shared keys are replaced by more secure unique keys.
4. Enable utilization of key-mapping keys rather than default keys so that sessions are unique when using WEP.

5.5.7.3 Cellular

Cellular telephones, smartphones (i.e. Blackberry, iPhones, etc.), personal digital assistants (PDA), and “aircards” are examples of cellular handheld devices or devices that employ cellular technology. Additionally, cellular handheld devices typically include Bluetooth, infrared, and other wireless protocols capable of joining infrastructure networks or creating dynamic ad hoc networks. Cellular devices are at risk due to a multitude of threats and consequently pose a risk to the enterprise.

Threats to cellular handheld devices stem mainly from their size, portability, and available wireless interfaces and associated services. Examples of threats to cellular handheld devices include:

1. Loss, theft, or disposal.
2. Unauthorized access.
3. Malware.
4. Spam.
5. Electronic eavesdropping.
6. Electronic tracking (threat to security of data and safety of law enforcement officer).
7. Cloning (not as prevalent with later generation cellular technologies).
8. Server-resident data.

5.5.7.3.1 Cellular Risk Mitigations

Organizations shall, at a minimum, ensure that cellular devices:

1. Apply available critical patches and upgrades to the operating system.
2. Are configured for local device authentication.
3. Use advanced authentication.
4. Encrypt all CJI resident on the device.
5. Erase cached information when session is terminated.
6. Employ personal firewalls.

7. Employ antivirus software.

5.5.7.3.2 Voice Transmissions Over Cellular Devices

Any cellular device used to transmit CJI via voice is exempt from the encryption and authentication requirements when an officer determines there is an immediate need for the CJI to further an investigation or situations affecting the safety of an officer or the general public.

5.5.7.4 Bluetooth

Bluetooth is an open standard for short-range radio frequency (RF) communication and is used primarily to establish wireless personal area networks (WPAN), commonly referred to as ad hoc networks or piconets. A piconet is composed of two or more Bluetooth devices in close physical proximity that operate on the same channel using the same frequency hopping sequence and can scale to include up to seven active slave devices and up to 255 inactive slave devices. Bluetooth voice and data transfer technology has been integrated into many types of business and consumer devices, including cellular phones, personal digital assistants (PDA), laptops, automobiles, printers, and headsets.

Bluetooth does not provide end-to-end, audit, or non-repudiation security services. If such services are needed, they shall be provided through additional, higher-layer means in addition to the Bluetooth specification and 802.11 standards.

The cryptographic algorithms employed by the Bluetooth standard are not FIPS approved. When communications require FIPS-approved cryptographic protection, this can be achieved by employing application-level FIPS-approved encryption over the native Bluetooth encryption.

Agencies shall:

1. Provide users with a list of precautionary measures they should take to better protect handheld Bluetooth devices from theft. The organization and its employees should be responsible for its wireless technology components because theft of those components could lead to malicious activities against the organization's information system resource.
2. Maintain a complete inventory of all Bluetooth-enabled wireless devices and addresses (BD_ADDRs). A complete inventory of Bluetooth-enabled wireless devices can be referenced when conducting an audit that searches for unauthorized use of wireless technologies.
3. Change the default setting of the Bluetooth device to reflect the organization's security policy. Because default settings are generally not secure, a careful review of those settings should be performed to ensure that they comply with the organization's security policy.
4. Set Bluetooth devices to the lowest necessary and sufficient power level so that transmissions remain within the secure perimeter of the organization. Setting Bluetooth devices to the lowest necessary and sufficient power level ensures a secure range of access to authorized users. The use of Class 1 devices should be avoided due to their extended range (approximately 100 meters).
5. Choose personal identification number (PIN) codes that are sufficiently random and long. Avoid static and weak PINs, such as all zeroes. PIN codes should be random so that they cannot be easily reproduced by malicious users. Longer PIN codes are more resistant to

brute force attacks. For Bluetooth v2.0 (or earlier) devices, an eight-character alphanumeric PIN shall be used.

6. For v2.1 devices using Secure Simple Pairing, avoid using the “Just Works” model. The “Just Works” model does not provide protection against man-in-the-middle (MITM) attacks. Devices that only support Just Works should not be procured if similarly qualified devices that support one of the association models (i.e. Numeric Comparison, Out of Band, or Passkey Entry) are available.
7. Bluetooth devices should be configured by default as, and remain, undiscoverable except as needed for pairing. Bluetooth interfaces should be configured as non-discoverable, which prevents visibility to other Bluetooth devices except when discovery is specifically needed. Also, the default self-identifying or discoverable names provided on Bluetooth devices should be changed to anonymous unidentifiable names.
8. Invoke link encryption for all Bluetooth connections regardless of how needless encryption may seem (i.e. no Security Mode 1). Link encryption should be used to secure all data transmissions during a Bluetooth connection; otherwise, transmitted data is vulnerable to eavesdropping.
9. If multi-hop wireless communication is being utilized, ensure that encryption is enabled on every link in the communication chain. Every link should be secured because one unsecured link results in compromising the entire communication chain.
10. Ensure device mutual authentication is performed for all accesses. Mutual authentication is required to provide verification that all devices on the network are legitimate.
11. Enable encryption for all broadcast transmission (Encryption Mode 3). Broadcast transmissions secured by link encryption provide a layer of security that protects these transmissions from user interception for malicious purposes.
12. Configure encryption key sizes to the maximum allowable. Using maximum allowable key sizes provides protection from brute force attacks.
13. Establish a “minimum key size” for any negotiation process. Establishing minimum key sizes ensures that all keys are long enough to be resistant to brute force attacks. See Section 5.10.1.2 for minimum key encryption standards.
14. Use Security Mode 3 in order to provide link-level security prior to link establishment.
15. Users do not accept transmissions of any kind from unknown or suspicious devices. These types of transmissions include messages, files, and images. With the increase in the number of Bluetooth enabled devices, it is important that users only establish connections with other trusted devices and only accept content from these trusted devices.

5.5.8 References/Citations/Directives

Appendix I contains all of the references used in this policy and may contain additional sources that apply to this section.

Figure 6 - A Local Police Department's Access Controls

A local police department purchased a new computer-assisted dispatch (CAD) system that integrated with their state CSA's CJI interfaces. In doing so, the police department employed least-privilege practices to ensure that its employees were only given those privileges needed to perform their jobs, and as such, excluding IT administrators, employees had only non-administrative privileges on all equipment they used. The police department also used ACLs in the operating systems to control access to the CAD client's executables. The CAD system used internal role-based access controls to ensure only those users that needed access to CJI were given it. The police department performed annual audits of user accounts on all systems under their control including remote access mechanisms, operating systems, and the CAD system to ensure all accounts were in valid states. The police department implemented authentication-failure account lockouts, system use notification via login banners, and screen-saver passwords on all equipment that processes CJI.

5.6 Policy Area 6: Identification and Authentication

The agency shall identify information system users and processes acting on behalf of users and authenticate the identities of those users or processes as a prerequisite to allowing access to agency information systems or services.

5.6.1 Identification Policy and Procedures

Each person who is authorized to store, process, and/or transmit CJI shall be uniquely identified. A unique identification shall also be required for all persons who administer and maintain the system(s) that access CJI or networks leveraged for CJI transit. The unique identification can take the form of a full name, badge number, serial number, or other unique alphanumeric identifier. Agencies shall require users to identify themselves uniquely before the user is allowed to perform any actions on the system. Agencies shall ensure that all user IDs belong to currently authorized users. Identification data shall be kept current by adding new users and disabling and/or deleting former users.

5.6.1.1 Use of Originating Agency Identifiers in Transactions and Information Exchanges

An FBI authorized originating agency identifier (ORI) shall be used in each transaction on CJIS systems in order to identify the sending agency and to ensure the proper level of access for each transaction. The original identifier between the requesting agency and the CSA/SIB/Channeler shall be the ORI, and other agency identifiers, such as user identification or personal identifier, an access device mnemonic, or the Internet Protocol (IP) address.

Agencies may act as a servicing agency and perform transactions on behalf of authorized agencies requesting the service. Servicing agencies performing inquiry transactions on behalf of another agency may do so using the requesting agency's ORI. Servicing agencies may also use their own ORI to perform inquiry transactions on behalf of a requesting agency if the means and procedures are in place to provide an audit trail for the current specified retention period. Because the agency performing the transaction may not necessarily be the same as the agency requesting the transaction, the CSA/SIB/Channeler shall ensure that the ORI for each transaction can be traced, via audit trail, to the specific agency which is requesting the transaction.

Audit trails can be used to identify the requesting agency if there is a reason to inquire into the details surrounding why an agency ran an inquiry on a subject. Agencies assigned a P (limited access) ORI shall not use the full access ORI of another agency to conduct an inquiry transaction.

5.6.2 Authentication Policy and Procedures

Authentication refers to mechanisms or processes that verify users are valid once they are uniquely identified. The CSA/SIB may develop an authentication strategy which centralizes oversight but decentralizes the establishment and daily administration of the security measures for access to CJI.

Each individual's identity shall be authenticated at either the local agency, CSA, SIB or Channeler level. The authentication strategy shall be part of the agency's audit for policy compliance. The FBI CJIS Division shall identify and authenticate all individuals who establish

direct web-based interactive sessions with FBI CJIS Services. The FBI CJIS Division shall authenticate the ORI of all message-based sessions between the FBI CJIS Division and its customer agencies but will not further authenticate the user nor capture the unique identifier for the originating operator because this function is performed at the local agency, CSA, SIB or Channeler level.

5.6.2.1 Standard Authentication (Password)

Agencies shall follow the secure password attributes, below, to authenticate an individual's unique ID. Passwords shall:

1. Be a minimum length of eight (8) characters on all systems.
2. Not be a dictionary word or proper name.
3. Not be the same as the Userid.
4. Expire within a maximum of 90 calendar days.
5. Not be identical to the previous ten (10) passwords.
6. Not be transmitted in the clear outside the secure location.
7. Not be displayed when entered.

5.6.2.2 Advanced Authentication

Advanced Authentication (AA) provides for additional security to the typical user identification and authentication of login ID and password, such as: biometric systems, user-based public key infrastructure (PKI), smart cards, software tokens, hardware tokens, paper (inert) tokens, or "Risk-based Authentication" that includes a software token element comprised of a number of factors, such as network information, user information, positive device identification (i.e. device forensics, user pattern analysis and user binding), user profiling, and high-risk challenge/response questions.

5.6.2.2.1 Advanced Authentication Policy and Rationale

The requirement to use or not use AA is dependent upon the physical, personnel and technical security controls associated with the user location. For example, AA shall not be required for users requesting access to CJI from within the perimeter of a physically secure location (Section 5.9), when the technical security controls have been met (Sections 5.5 and 5.10). Conversely, if the technical security controls have not been met AA shall be required even if the request for CJI originates from within a physically secure location. Section 5.6.2.2.2 provides agencies with a decision tree to help guide AA decisions.

INTERIM COMPLIANCE:

1. For interim compliance, users accessing CJI from devices associated with, and located within, a police vehicle are exempt from the AA requirement until September 30th 2013 if the information system being used has not been procured or upgraded anytime after September 30th, 2005. For the purposes of this policy, a police vehicle is defined as an enclosed criminal justice conveyance with the capability to comply, during operational periods, with Section 5.9.1.3.

2. Internet Protocol Security (IPSec) does not meet the 2011 requirements for advanced authentication; however, agencies that have funded/implemented IPSec in order to meet the AA requirements of CJIS Security Policy v.4.5 may continue to utilize IPSec for AA until 2013. Examples:
 - a. A police officer runs a query for CJI from his/her laptop mounted in a police vehicle. The police officer leverages a cellular network as the transmission medium; authenticates the device using IPSec key exchange; and tunnels across the cellular network using the IPSec virtual private network (VPN). IPSec was funded and installed in order to meet the AA requirements of CJIS Security Policy version 4.5. AA requirements are waived until 2013.
 - b. A detective accesses CJI from various locations while investigating a crime scene. The detective uses an agency managed laptop with IPSec installed and leverages a cellular network as the transmission medium. IPSec was funded and installed in order to meet the AA requirements of CJIS Security Policy version 4.5. AA requirements are waived until 2013.

EXCEPTION:

AA shall be required when the requested service has built AA into its processes and requires a user to provide AA before granting access. **EXAMPLES:**

- a. A user, irrespective of his/her location, accesses the LEO website. The LEO has AA built into its services and requires AA prior to granting access. AA is required.
- b. A user, irrespective of their location, accesses a State's portal through which access to CJI is facilitated. The State Portal has AA built into its processes and requires AA prior to granting access. AA is required.

5.6.2.2.2 Advanced Authentication Decision Tree

The following AA Decision Tree, coupled with figures 8 and 9 below, assist decision makers in determining whether or not AA is required.

1. Can request's originating location be determined physically?

If either (a) or (b) below are true the answer to the above question is "yes". Proceed to question 2.

- a. The IP address is attributed to a physical structure; or
- b. The mnemonic is attributed to a specific device assigned to a specific location that is a physical structure.

If neither (a) or (b) above are true then the answer is "no". Skip to question number 4.

2. Does request originate from within a physically secure location (that is not a police vehicle) as described in section 5.9.1?

If either (a) or (b) below are true the answer to the above question is "yes". Proceed to question 3.

- a. The IP address is attributed to a physically secure location; or
- b. If a mnemonic is used it is attributed to a specific device assigned to a specific physically secure location.

If neither (a) or (b) above are true then the answer is “no”. Decision tree completed. AA required.

3. Are all required technical controls implemented at this location or at the controlling agency?

If either (a) or (b) below are true the answer to the above question is “yes”. Decision tree completed. AA requirement waived.

- a. Appropriate technical controls listed in sections 5.5 and 5.10 are implemented; or
- b. The controlling agency (i.e. parent agency or agency leveraged as conduit to FBI CJIS data) extends its wide area network controls down to the requesting agency and the extended controls provide assurance equal or greater to the controls listed in sections 5.5 and 5.10.

If neither (a) or (b) above are true then the answer is “no”. Decision tree completed. AA required.

4. Does request originate from an agency-managed user device?

If either (a) or (b) below are true the answer to the above question is “yes”. Proceed to question 5.

- a. The static IP address or MAC address can be traced to registered device; or
- b. Certificates are issued to agency managed devices only and certificate exchange is allowed only between authentication server and agency issued devices.

If neither (a) or (b) above are true then the answer is “no”. Decision tree completed. AA required.

5. Is the agency managed user device associated with a law enforcement conveyance?

If any of the (a), (b), or (c) statements below is true the answer to the above question is “yes”. Proceed to question 6.

- a. The static IP address or MAC address is associated with a device associated with a law enforcement conveyance; or
- b. The certificate presented is associated with a device associated with a law enforcement conveyance; or
- c. The mnemonic presented is associated with a specific device assigned and that device is attributed to a law enforcement conveyance.

If none of the (a), (b), or (c) statements above are true then the answer is “no”. Skip to question number 7.

6. Has there been an acquisition or upgrade since 2005?

If any of the (a), (b), (c), or (d) statements below are true the answer to the above question is “yes”. Proceed to question number 7.

- a. The “green-screen” MDTs have been replaced with laptops or other mobile devices; or
- b. An upgrade of technology exceeding 25% of the cost of the system being upgraded has taken place; or
- c. Any upgrade to the system encryption module has taken place; or
- d. Any upgrade to the system that is not replacing like technology has taken place.

If none of the (a), (b), (c), or (d) statements above are true then the answer is “no”. Decision tree completed. AA requirement waived.

7. Was IPSec implemented to meet the requirements of Policy Version 4.5?

If either (a) or (b) below are true the answer to the above question is “yes”. Decision tree completed. AA requirement is waived.

- a. The budget acquisition of IPSec was completed prior to January 1st, 2009 and IPSec was subsequently implemented; or
- b. Implementation of IPSec was completed prior to January 1st, 2009.

If neither (a) or (b) above are true then the answer is “no”. Decision tree completed. AA required.

5.6.3 Identifier and Authenticator Management

The agency shall establish identifier and authenticator management processes.

5.6.3.1 Identifier Management

In order to manage user identifiers, agencies shall:

- 1. Uniquely identify each user.
- 2. Verify the identity of each user.
- 3. Receive authorization to issue a user identifier from an appropriate agency official.
- 4. Issue the user identifier to the intended party.
- 5. Disable the user identifier after a specified period of inactivity.
- 6. Archive user identifiers.

5.6.3.2 Authenticator Management

In order to manage information system authenticators, agencies shall:

- 1. Define initial authenticator content.

2. Establish administrative procedures for initial authenticator distribution, for lost/compromised, or damaged authenticators, and for revoking authenticators.
3. Change default authenticators upon information system installation.
4. Change/refresh authenticators periodically.

Information system authenticators include, for example, tokens, user-based PKI certificates, biometrics, passwords, and key cards. Users shall take reasonable measures to safeguard authenticators including maintaining possession of their individual authenticators, not loaning or sharing authenticators with others, and immediately reporting lost or compromised authenticators.

5.6.4 Assertions

Identity providers can be leveraged to identify individuals and assert the individual's identity to a service or to a trusted broker who will in-turn assert the identity to a service. Assertion mechanisms used to communicate the results of a remote authentication to other parties shall be:

1. Digitally signed by a trusted entity (e.g., the identity provider).
2. Obtained directly from a trusted entity (e.g. trusted broker) using a protocol where the trusted entity authenticates to the relying party using a secure protocol (e.g. transport layer security [TLS]) that cryptographically authenticates the verifier and protects the assertion.

Assertions generated by a verifier shall expire after 12 hours and shall not be accepted thereafter by the relying party.

5.6.5 References/Citations/Directives

Appendix C contains all of the references used in this policy and may contain additional sources that apply to this section.

Figure 7 - A Local Police Department's Authentication Controls

During the course of an investigation, a detective accessed CJI from a hotel room using an agency issued mobile broadband card. To gain access, the detective first established the remote session via a secure virtual private network (VPN) tunnel (satisfying the requirement for encryption), then was challenged to enter both password and the value from a hardware token (satisfying the requirement for advanced authentication). Once the detective's credentials were validated, his identity was asserted by the infrastructure to all authorized applications needed to complete his investigation.

Figure 8 - Authentication Decision for Known Location

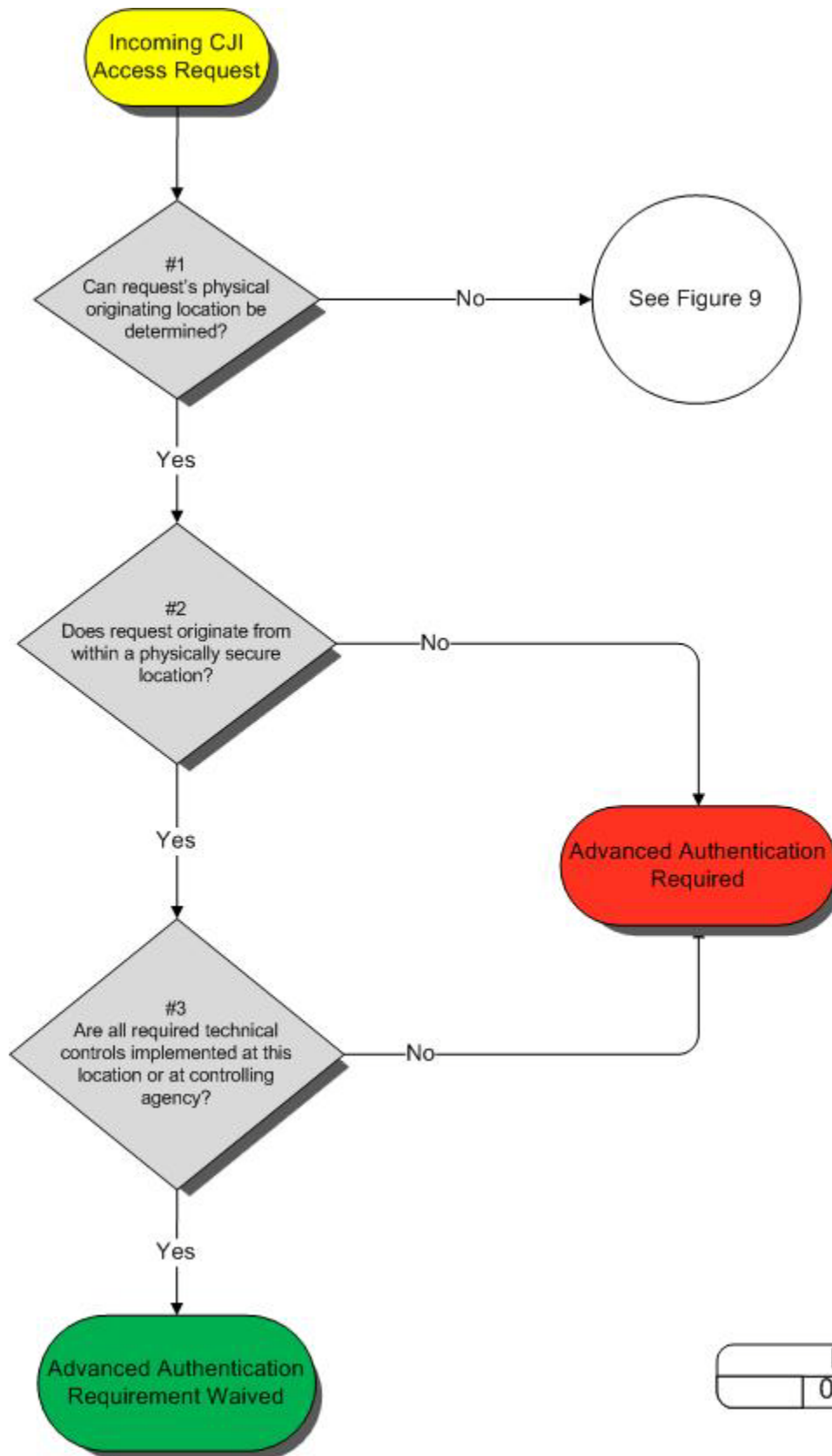


Figure 8		
	01/01/2011	

Figure 9 - Authentication Decision for Unknown Location

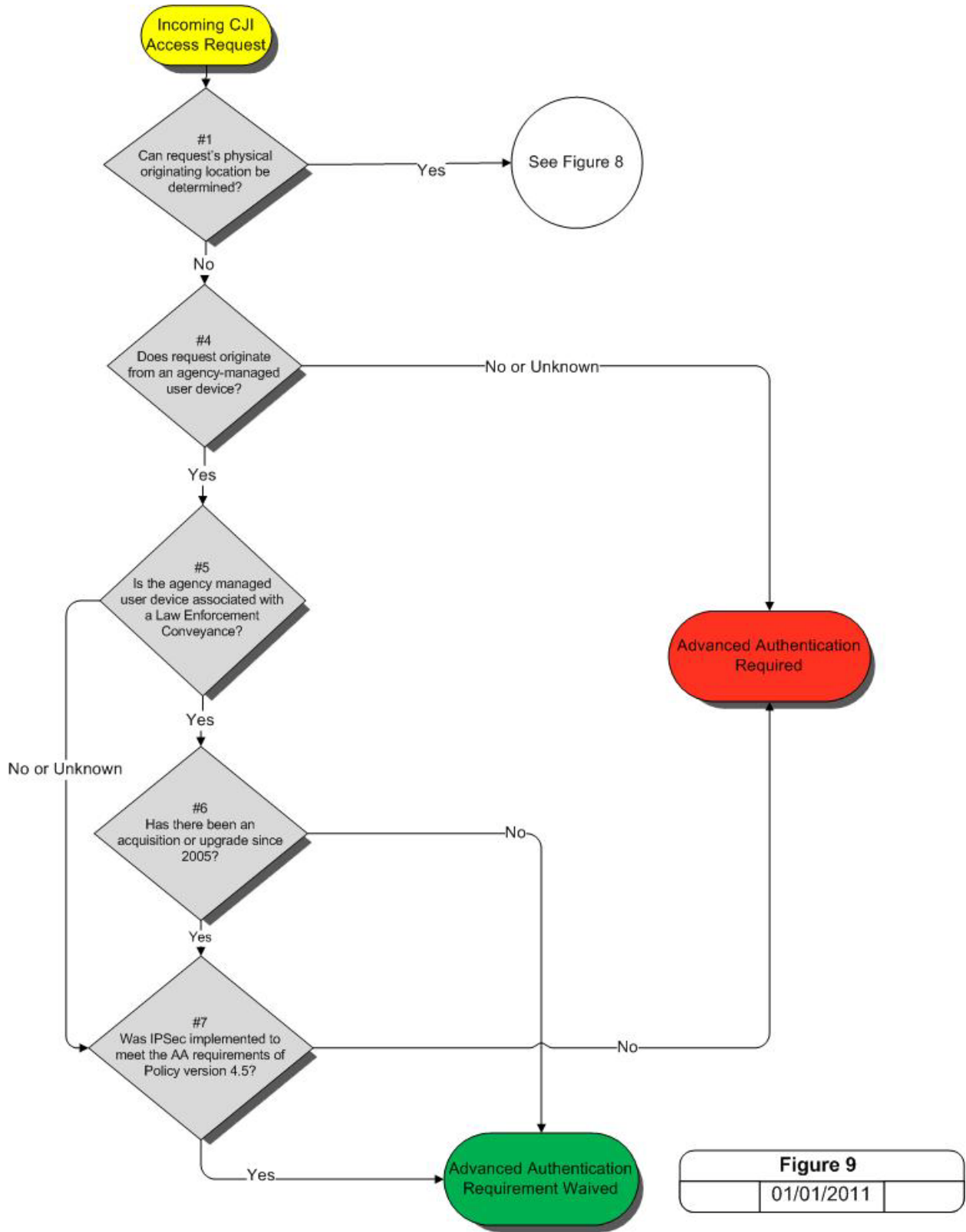


Figure 9		
	01/01/2011	

5.7 Policy Area 7: Configuration Management

5.7.1 Access Restrictions for Changes

Planned or unplanned changes to the hardware, software, and/or firmware components of the information system can have significant effects on the overall security of the system. The goal is to allow only qualified and authorized individuals access to information system components for purposes of initiating changes, including upgrades, and modifications. Section 5.5, Access Control, describes agency requirements for control of privileges and restrictions.

5.7.1.1 Least Functionality

The agency shall configure the application, service, or information system to provide only essential capabilities and shall specifically prohibit and/or restrict the use of specified functions, ports, protocols, and/or services.

5.7.1.2 Network Diagram

The agency shall ensure that a complete topological drawing depicting the interconnectivity of the agency network, to criminal justice information, systems and services is maintained in a current status. See Appendix C for sample network diagrams.

The network topological drawing shall include the following:

1. All communications paths, circuits, and other components used for the interconnection, beginning with the agency-owned system(s) and traversing through all interconnected systems to the agency end-point.
2. The logical location of all components (e.g., firewalls, routers, switches, hubs, servers, encryption devices, and computer workstations). Individual workstations (clients) do not have to be shown; the number of clients is sufficient.
3. “For Official Use Only” (FOUO) markings.
4. The agency name and date (day, month, and year) drawing was created or updated.

5.7.2 Security of Configuration Documentation

The system configuration documentation often contains sensitive details (e.g. descriptions of applications, processes, procedures, data structures, authorization processes, data flow, etc.) Agencies shall protect the system documentation from unauthorized access consistent with the provisions described in section 5.5 Access Control.

5.7.3 References/Citations/Directives

Appendix I contains all of the references used in this policy and may contain additional sources that apply to this section.

Figure 10 - A Local Police Department's Configuration Management Controls

A local police department decided to update their CAD system, and in doing so tracked all changes made to their infrastructure in a configuration management journal, updated their network topology documents to include all new components in their architecture, then marked all documentation as FOUO and stored them securely.

5.8 Policy Area 8: Media Protection

Media protection policy and procedures shall be documented and implemented to ensure that access to electronic and physical media in all forms is restricted to authorized individuals. Procedures shall be defined for securely handling, transporting and storing media.

5.8.1 Media Storage and Access

The agency shall securely store electronic and physical media within physically secure locations or controlled areas. The agency shall restrict access to electronic and physical media to authorized individuals. If physical and personnel restrictions are not feasible then the data shall be encrypted per section 5.10.1.2.

5.8.2 Media Transport

The agency shall protect and control electronic and physical media during transport outside of controlled areas and restrict the activities associated with transport of such media to authorized personnel.

5.8.2.1 Electronic Media in Transit

“Electronic media” means electronic storage media including memory devices in laptops and computers (hard drives) and any removable, transportable digital memory media, such as magnetic tape or disk, optical disk, flash drives, external hard drives, or digital memory card.

Controls shall be in place to protect electronic media containing CJI while in transport (physically moved from one location to another) to help prevent compromise of the data. Encryption, as defined in section 5.10.1.2 of this policy, is the optimal control during transport; however, if encryption of the data isn’t possible then each agency shall institute other controls to ensure the security of the data.

5.8.2.2 Physical Media in Transit

The controls and security measures in this document also apply to CJI in physical (printed documents, printed imagery, etc.) form. Physical media shall be protected at the same level as the information would be protected in electronic form.

5.8.3 Electronic Media Sanitization and Disposal

The agency shall sanitize, that is, overwrite at least three times or degauss electronic media prior to disposal or release for reuse by unauthorized individuals. Inoperable electronic media shall be destroyed (cut up, shredded, etc.). The agency shall maintain written documentation of the steps taken to sanitize or destroy electronic media. Agencies shall ensure the sanitization or destruction is witnessed or carried out by authorized personnel.

5.8.4 Disposal of Physical Media

Physical media shall be securely disposed of when no longer required, using formal procedures. Formal procedures for the secure disposal or destruction of physical media shall minimize the risk of sensitive information compromise by unauthorized individuals. Physical media shall be

destroyed by shredding or incineration. Agencies shall ensure the disposal or destruction is witnessed or carried out by authorized personnel.

5.8.5 References/Citations/Directives

Appendix I contains all of the references used in this policy and may contain additional sources that apply to this section.

Figure 11 - A Local Police Department's Media Management Policies

A local police department implemented a replacement CAD system that integrated to their state's CSA and was authorized to process CJI. The police department contracted with an off-site media manager to store backups of their data in the contractor's vaults, but the contractor was not authorized to process or store CJI. To ensure the confidentiality of the police department's data while outside its perimeter, they encrypted all data going to the contractor with Advanced Encryption Standard (AES)-256. The police department rotated and reused media through the contractor's vaults periodically, and when it required destruction, the police department incinerated the media to irreversibly destroy any data on it.

5.9 Policy Area 9: Physical Protection

Physical protection policy and procedures shall be documented and implemented to ensure CJI and information system hardware, software, and media are physically protected through access control measures.

5.9.1 Physically Secure Location

A physically secure location is a facility or an area, a room, or a group of rooms within a facility with both the physical and personnel security controls sufficient to protect CJI and associated information systems. The physically secure location is subject to criminal justice agency management control; SIB control; FBI CJIS Security addendum; or a combination thereof. Sections 5.9.1.1 – 5.9.1.9 describe the physical controls required in order to be considered a physically secure location, while section 5.12 describes the minimum personnel security controls required for unescorted access to a physically secure location.

For interim compliance, and for the sole purpose of meeting the advanced authentication policy, a police vehicle shall be considered a physically secure location until September 30th 2013. For the purposes of this policy, a police vehicle is defined as an enclosed criminal justice conveyance with the capability to comply, during operational periods, with section 5.9.1.3.

5.9.1.1 Security Perimeter

The perimeter of physically secure location shall be prominently posted and separated from non-secure locations by physical controls. Security perimeters shall be defined, controlled and secured in a manner acceptable to the CSA or SIB.

5.9.1.2 Physical Access Authorizations

The agency shall develop and keep current a list of personnel with authorized access to the physically secure location (except for those areas within the permanent facility officially designated as publicly accessible) or shall issue credentials to authorized personnel.

5.9.1.3 Physical Access Control

The agency shall control all physical access points (except for those areas within the facility officially designated as publicly accessible) and shall verify individual access authorizations before granting access.

5.9.1.4 Access Control for Transmission Medium

The agency shall control physical access to information system distribution and transmission lines within the physically secure location.

5.9.1.5 Access Control for Display Medium

The agency shall control physical access to information system devices that display CJI and shall position information system devices in such a way as to prevent unauthorized individuals from accessing and viewing CJI.

5.9.1.6 Monitoring Physical Access

The agency shall monitor physical access to the information system to detect and respond to physical security incidents.

5.9.1.7 Visitor Control

The agency shall control physical access by authenticating visitors before authorizing escorted access to the physically secure location (except for those areas designated as publicly accessible). The agency shall escort visitors at all times and monitor visitor activity.

5.9.1.8 Access Records

The agency shall maintain visitor access records to the physically secure location (except for those areas officially designated as publicly accessible) that includes:

1. Name and agency of the visitor.
2. Signature of the visitor.
3. Form of identification.
4. Date of access.
5. Time of entry and departure.
6. Purpose of visit.
7. Name and agency of person visited.

The visitor access records shall be maintained for a minimum of one year. Designated officials within the agency shall review the visitor access records frequently for accuracy and completeness.

5.9.1.9 Delivery and Removal

The agency shall authorize and control information system-related items entering and exiting the physically secure location.

5.9.2 Controlled Area

If an agency cannot meet all of the controls required for establishing a physically secure location, but has an operational need to access or store CJI, the agency shall designate an area, a room, or a storage container, as a “controlled area” for the purpose of day-to-day CJI access or storage. The agency shall, at a minimum:

1. Limit access to the controlled area during CJI processing times to only those personnel authorized by the agency to access or view CJI.
2. Lock the area, room, or storage container when unattended.
3. Position information system devices and documents containing CJI in such a way as to prevent unauthorized individuals from access and view.
4. Follow the encryption requirements found in section 5.10.1.2 for electronic storage (i.e. data “at rest”) of CJI.

5.9.3 References/Citations/Directives

Appendix I contains all of the references used in this policy and may contain additional sources that apply to this section.

Figure 12 - A Local Police Department's Physical Protection Measures

A local police department implemented a replacement CAD system that was authorized to process CJI over an encrypted VPN tunnel to the state's CSA. The police department established a physically separated wing within their precinct separated by locked doors, walls, and a monitored security system within which CJI was processed by dispatchers, officers, and detectives. Only those persons with the appropriate authorizations were permitted within this wing unless accompanied by such a person. Within this secure wing the police department further segregated the back-office information systems' infrastructure within a separately controlled area restricted only to those authorized administrative personnel with a need to enter.

5.10 Policy Area 10: System and Communications Protection and Information Integrity

Examples of systems and communications safeguards range from boundary and transmission protection to securing an agency's virtualized environment. In addition, applications, services, or information systems must have the capability to ensure system integrity through the detection and protection against unauthorized changes to software and information. This section details the policy for protecting systems and communications infrastructures.

5.10.1 Information Flow Enforcement

The network infrastructure shall control the flow of information between interconnected systems. Information flow control regulates where information is allowed to travel within an information system and between information systems (as opposed to who is allowed to access the information) and without explicit regard to subsequent accesses to that information. In other words, controlling how data moves from one place to the next in a secure manner. Examples of controls that are better expressed as flow control than access control (see section 5.5) are:

1. Prevent CJI from being transmitted unencrypted across the public network.
2. Block outside traffic that claims to be from within the agency.
3. Do not pass any web requests to the public network that are not from the internal web proxy.

Specific examples of flow control enforcement can be found in boundary protection devices (e.g. proxies, gateways, guards, encrypted tunnels, firewalls, and routers) that employ rule sets or establish configuration settings that restrict information system services or provide a packet filtering capability.

5.10.1.1 Boundary Protection

The agency shall:

1. Control access to networks processing CJI.
2. Monitor and control communications at the external boundary of the information system and at key internal boundaries within the system.
3. Ensure any connections to the Internet, other external networks, or information systems occur through controlled interfaces (e.g. proxies, gateways, routers, firewalls, encrypted tunnels). See Section 5.10.4.4 for guidance on personal firewalls.
4. Employ tools and techniques to monitor network events, detect attacks, and provide identification of unauthorized use.
5. Ensure the operational failure of the boundary protection mechanisms do not result in any unauthorized release of information outside of the information system boundary (i.e. the device shall "fail closed" vs. "fail open").
6. Allocate publicly accessible information system components (e.g. public Web servers) to separate sub networks with separate, network interfaces. Publicly accessible information

systems residing on a virtual host shall follow the guidance in section 5.10.3.2 to achieve separation.

5.10.1.2 Encryption

1. Encryption shall be a minimum of 128 bit.
2. When CJI is transmitted outside the boundary of the physically secure location, the data shall be immediately protected via cryptographic mechanisms (encryption).

EXCEPTIONS: See sections 5.5.7.3.2 and 5.10.2.

3. When CJI is at rest (i.e. stored electronically) outside the boundary of the physically secure location, the data shall be protected via cryptographic mechanisms (encryption).
4. When encryption is employed, the cryptographic module used shall be certified to meet FIPS 140-2 standards.

Note 1: Subsequent versions of approved cryptographic modules that are under current review for FIPS 140-2 compliancy can be used in the interim until certification is complete.

Note 2: While FIPS 197 (Advanced Encryption Standard) certification is desirable, a FIPS 197 certification alone is insufficient as the certification is for the algorithm only vs. the FIPS 140-2 standard which certifies the packaging of an implementation.

5. For agencies using public key infrastructure technology, the agency shall develop and implement a certificate policy and certification practice statement for the issuance of public key certificates used in the information system. Registration to receive a public key certificate shall:
 - a) Include authorization by a supervisor or a responsible official.
 - b) Be accomplished by a secure process that verifies the identity of the certificate holder.
 - c) Ensure the certificate is issued to the intended party.

5.10.1.3 Intrusion Detection Tools and Techniques

The agency shall implement network-based and/or host-based intrusion detection tools.

The CSA/SIB shall, in addition:

1. Monitor inbound and outbound communications for unusual or unauthorized activities.
2. Send individual intrusion detection logs to a central logging facility where correlation and analysis will be accomplished as a system wide intrusion detection effort.
3. Employ automated tools to support near-real-time analysis of events in support of detecting system-level attacks.

5.10.1.4 Voice Over Internet Protocol

Appropriate agency officials must explicitly authorize the use of Voice over Internet Protocol (VoIP). Agencies using the VoIP protocol shall:

1. Establish usage restrictions and implementation guidance for VoIP technologies.
2. Document, monitor and control the use of VoIP within the agency.

5.10.2 Facsimile Transmission of CJI

CJI transmitted via facsimile is exempt from encryption requirements.

5.10.3 Partitioning and Virtualization

As resources grow scarce, agencies are increasing the centralization of applications, services, and system administration. Advanced software now provides the ability to create virtual machines that allows agencies to reduce the amount of hardware needed. Although the concepts of partitioning and virtualization have existed for a while, the need for securing the partitions and virtualized machines has evolved due to the increasing amount of distributed processing and federated information sources now available across the Internet.

5.10.3.1 Partitioning

The application, service, or information system shall separate user functionality (including user interface services) from information system management functionality.

The application, service, or information system shall physically or logically separate user interface services (e.g. public web pages) from information storage and management services (e.g. database management). Separation may be accomplished through the use of one or more of the following:

1. Different computers.
2. Different central processing units.
3. Different instances of the operating system.
4. Different network addresses.
5. Other methods approved by the FBI CJIS ISO.

5.10.3.2 Virtualization

Virtualization refers to a methodology of dividing the resources of a computer (hardware and software) into multiple execution environments. Virtualized environments are authorized for criminal justice and noncriminal justice activities. In addition to the security controls described in this policy, the following additional controls shall be implemented in a virtual environment:

1. Isolate the host from the virtual machine. In other words, virtual machine users cannot access host files, firmware, etc.
2. Maintain audit logs for all virtual machines and hosts and store the logs outside the hosts' virtual environment.
3. Virtual Machines that are Internet facing (web servers, portal servers, etc.) shall be physically separate from Virtual Machines that process CJI internally.
4. Device drivers that are "critical" shall be contained within a separate guest.

The following are additional technical security control best practices and should be implemented wherever feasible:

1. Encrypt network traffic between the virtual machine and host.
2. Implement IDS and IPS monitoring within the virtual machine environment.
3. Virtually firewall each virtual machine from each other (or physically firewall each virtual machine from each other with an application layer firewall) and ensure that only allowed protocols will transact.
4. Segregate the administrative duties for the host.

Appendix G provides some reference and additional background information on virtualization.

5.10.4 System and Information Integrity Policy and Procedures

5.10.4.1 Patch Management

The agency shall identify applications, services, and information systems containing software or components affected by recently announced software flaws and potential vulnerabilities resulting from those flaws.

The agency (or the software developer/vendor in the case of software developed and maintained by a vendor/contractor) shall develop and implement a local policy that ensures prompt installation of newly released security relevant patches, service packs and hot fixes. Local policies should include such items as:

1. Testing of appropriate patches before installation.
2. Rollback capabilities when installing patches, updates, etc.
3. Automatic updates without individual user intervention.
4. Centralized patch management.

Patch requirements discovered during security assessments, continuous monitoring or incident response activities shall also be addressed expeditiously.

5.10.4.2 Malicious Code Protection

The agency shall implement malicious code protection that includes automatic updates for all systems with Internet access. Agencies with systems not connected to the Internet shall implement local procedures to ensure malicious code protection is kept current (i.e. most recent update available).

The agency shall employ virus protection mechanisms to detect and eradicate malicious code (e.g., viruses, worms, Trojan horses) at critical points throughout the network and on all workstations, servers and mobile computing devices on the network. The agency shall ensure malicious code protection is enabled on all of the aforementioned critical points and information systems and resident scanning is employed.

5.10.4.3 Spam and Spyware Protection

The agency shall implement spam and spyware protection.

The agency shall:

1. Employ spam protection mechanisms at critical information system entry points (e.g. firewalls, electronic mail servers, remote-access servers).
2. Employ spyware protection at workstations, servers and/or mobile computing devices on the network.
3. Use the spam and spyware protection mechanisms to detect and take appropriate action on unsolicited messages and spyware/adware, respectively, transported by electronic mail, electronic mail attachments, Internet accesses, removable media (e.g. diskettes or compact disks) or other removable media as defined in this policy document.

5.10.4.4 Personal Firewall

A personal firewall shall be employed on all devices that are mobile by design (i.e. laptops, handhelds, personal digital assistants, etc.). For the purpose of this policy, a personal firewall is an application that controls network traffic to and from a computer, permitting or denying communications based on policy. At a minimum, the personal firewall shall perform the following activities:

1. Manage program access to the Internet.
2. Block unsolicited requests to connect to the PC.
3. Filter incoming traffic by IP address or protocol.
4. Filter incoming traffic by destination ports.
5. Maintain an IP traffic log.

5.10.4.5 Security Alerts and Advisories

The agency shall:

1. Receive information system security alerts/advisories on a regular basis.
2. Issue alerts/advisories to appropriate personnel.
3. Document the types of actions to be taken in response to security alerts/advisories.
4. Take appropriate actions in response.
5. Employ automated mechanisms to make security alert and advisory information available throughout the agency as appropriate.

5.10.4.6 Information Input Restrictions

The agency shall restrict the information input to any connection to FBI CJIS services to authorized personnel only.

Restrictions on personnel authorized to input information to the information system may extend beyond the typical access controls employed by the system and include limitations based on specific operational/project responsibilities.

5.10.5 References/Citations/Directives

Appendix I contains all of the references used in this policy and may contain additional sources that apply to this section.

Figure 13 - A Local Police Department's Information Systems & Communications Protections

A local police department implemented a replacement CAD system within a physically secure location that was authorized to process CJI using a FIPS 140-2 encrypted VPN tunnel over the Internet to the state's CSA. In addition to the policies, physical and personnel controls already in place, the police department employed firewalls both at their border and at key points within their network, intrusion detection systems, a patch-management strategy that included automatic patch updates where possible, virus scanners, spam and spyware detection mechanisms that update signatures automatically, and subscribed to various security alert mailing lists and addressed vulnerabilities raised through the alerts as needed.

5.11 Policy Area 11: Formal Audits

Formal audits are conducted to ensure compliance with applicable statutes, regulations and policies.

5.11.1 Audits by the FBI CJIS Division

5.11.1.1 Triennial Compliance Audits by the FBI CJIS Division

The FBI CJIS Division is authorized to conduct audits, once every three (3) years as a minimum, to assess agency compliance with applicable statutes, regulations and policies. The CJIS Audit Unit (CAU) shall conduct a triennial audit of each CSA in order to verify compliance with applicable statutes, regulations and policies. This audit shall include a sample of CJAs and, in coordination with the SIB, the NCJAs. Audits may be conducted on a more frequent basis if the audit reveals that an agency has not complied with applicable statutes, regulations and policies. The FBI CJIS Division shall also have the authority to conduct unannounced security inspections and scheduled audits of Contractor facilities.

5.11.1.2 Triennial Security Audits by the FBI CJIS Division

The FBI CJIS Division is authorized to conduct security audits of the CSA and SIB networks and systems, once every three (3) years as a minimum, to assess agency compliance with the CJIS Security Policy. This audit shall include a sample of CJAs and NCJAs. Audits may be conducted on a more frequent basis if the audit reveals that an agency has not complied with the CJIS Security Policy.

5.11.2 Audits by the CSA

Each CSA shall:

1. At a minimum, triennially audit all CJAs and NCJAs which have direct access to the state system in order to ensure compliance with applicable statutes, regulations and policies.
2. In coordination with the SIB, establish a process to periodically audit all NCJAs, with access to CJ, in order to ensure compliance with applicable statutes, regulations and policies.
3. Have the authority to conduct unannounced security inspections and scheduled audits of Contractor facilities.

5.11.3 Special Security Inquiries and Audits

All agencies having access to CJ shall permit an inspection team to conduct an appropriate inquiry and audit of any alleged security violations. The inspection team shall be appointed by the APB and shall include at least one representative of the CJIS Division. All results of the inquiry and audit shall be reported to the APB with appropriate recommendations.

5.11.4 References/Citations/Directives

Appendix I contains all of the references used in this policy and may contain additional sources that apply to this section.

Figure 14 - The Audit of a Local Police Department

A local police department implemented a replacement CAD system that integrated to their state's CSA and was authorized to process CJI. Shortly after the implementation, their state's CSA conducted an audit of their policies, procedures, and systems that process CJI. The police department supplied all architectural and policy documentation, including detailed network diagrams, to the auditors in order to assist them in the evaluation. The auditors discovered a deficiency in the police department's systems and marked them "out" in this aspect of the FBI CJIS Security Policy. The police department quickly addressed the deficiency and took corrective action, notifying the auditors of their actions.

5.12 Policy Area 12: Personnel Security

Having proper security measures against the insider threat is a critical component for the CJIS Security Policy. This section's security terms and requirements apply to all personnel who have access to unencrypted CJI including those individuals with only physical or logical access to devices that store, process or transmit unencrypted CJI.

5.12.1 Personnel Security Policy and Procedures

5.12.1.1 Minimum Screening Requirements for Individuals Requiring Access to CJI:

1. To verify identification, a state of residency and national fingerprint-based record checks shall be conducted within 30 days of assignment for all personnel who have direct access to CJI and those who have direct responsibility to configure and maintain computer systems and networks with direct access to CJI. When appropriate, the screening shall be consistent with: (i) 5 CFR 731.106; (ii) Office of Personnel Management policy, regulations, and guidance; and (iii) agency policy, regulations, and guidance. (See Appendix J for applicable guidance regarding noncriminal justice agencies performing adjudication of civil fingerprint submissions.) Federal entities bypassing state repositories in compliance with federal law may not be required to conduct a state fingerprint-based record check.
2. All requests for access shall be made as specified by the CSO. The CSO, or their designee, is authorized to approve access to CJI. All CSO designees shall be from an authorized criminal justice agency.
3. If a felony conviction of any kind exists, the hiring authority in the Interface Agency shall deny access to CJI. However, the hiring authority may ask for a review by the CSO in extenuating circumstances where the severity of the offense and the time that has passed would support a possible variance.
4. If a record of any other kind exists, access to CJI shall not be granted until the CSO or his/her designee reviews the matter to determine if access is appropriate.
5. If the person appears to be a fugitive or has an arrest history without conviction, the CSO or his/her designee shall review the matter to determine if access to CJI is appropriate.
6. If the person is employed by a NCJA, the CSO or his/her designee, and, if applicable, the appropriate board maintaining management control, shall review the matter to determine if CJI access is appropriate. This same procedure applies if this person is found to be a fugitive or has an arrest history without conviction.
7. If the person already has access to CJI and is subsequently arrested and or convicted, continued access to CJI shall be determined by the CSO. This does not implicitly grant hiring/firing authority with the CSA, only the authority to grant access to CJI.
8. If the CSO or his/her designee determines that access to CJI by the person would not be in the public interest, access shall be denied and the person's appointing authority shall be notified in writing of the access denial.

9. Support personnel, contractors, and custodial workers with access to physically secure locations or controlled areas (during CJI processing) shall be subject to a state and national fingerprint-based record check unless these individuals are escorted by authorized personnel at all times.

It is recommended individual background re-investigations be conducted every five years unless Rap Back is implemented.

5.12.1.2 Personnel Screening for Contractors and Vendors

In addition to meeting the requirements in paragraph 5.12.1.1, contractors and vendors shall meet the following requirements:

1. Prior to granting access to CJI, the CGA on whose behalf the Contractor is retained shall verify identification via a state of residency and national fingerprint-based record check.
2. If a record of any kind is found, the CGA shall be formally notified and system access shall be delayed pending review of the criminal history record information. The CGA shall in turn notify the Contractor-appointed Security Officer.
3. When identification of the applicant with a criminal history has been established by fingerprint comparison, the CGA or the CJA (if the CGA does not have the authority to view CHRI) shall review the matter.
4. A Contractor employee found to have a criminal record consisting of felony conviction(s) shall be disqualified.
5. Applicants shall also be disqualified on the basis of confirmations that arrest warrants are outstanding for such applicants.
6. The CGA shall maintain a list of personnel who have been authorized access to CJI and shall, upon request, provide a current copy of the access list to the CSO.

Applicants with a record of misdemeanor offense(s) may be granted access if the CSO determines the nature or severity of the misdemeanor offense(s) do not warrant disqualification. The CGA may request the CSO to review a denial of access determination.

5.12.2 Personnel Termination

The agency, upon termination of individual employment, shall immediately terminate access to CJI.

5.12.3 Personnel Transfer

The agency shall review CJI access authorizations when personnel are reassigned or transferred to other positions within the agency and initiate appropriate actions such as closing and establishing accounts and changing system access authorizations.

5.12.4 Personnel Sanctions

The agency shall employ a formal sanctions process for personnel failing to comply with established information security policies and procedures.

5.12.5 References/Citations/Directives

Appendix I contains all of the references used in this policy and may contain additional sources that apply to this section.

Figure 15 - A Local Police Department's Personnel Security Controls

A local police department implemented a replacement CAD system that integrated to their state's CSA and was authorized to process CJI. In addition to the physical and technical controls already in place, the police department implemented a variety of personnel security controls to reduce the insider threat. The police department used background screening consistent with the FBI CJIS Security Policy to vet those with unescorted access to areas in which CJI is processed, including the IT administrators employed by a contractor and all janitorial staff. The police department established sanctions against any vetted person found to be in violation of stated policies. The police department re-evaluated each person's suitability for access to CJI every five years.

APPENDIX A TERMS AND DEFINITIONS

Access to Criminal Justice Information — The physical or logical (electronic) ability, right or privilege to view, modify or make use of Criminal Justice Information.

Administration of Criminal Justice — The detection, apprehension, detention, pretrial release, post-trial release, prosecution, adjudication, correctional supervision, or rehabilitation of accused persons or criminal offenders. It also includes criminal identification activities; the collection, storage, and dissemination of criminal history record information; and criminal justice employment. In addition, administration of criminal justice includes “crime prevention programs” to the extent access to criminal history record information is limited to law enforcement agencies for law enforcement programs (e.g. record checks of individuals who participate in Neighborhood Watch or “safe house” programs) and the result of such checks will not be disseminated outside the law enforcement agency.

Agency Coordinator (AC) — A staff member of the Contracting Government Agency who manages the agreement between the Contractor and agency.

Agency Liaison (AL) — Coordinator of activities between the criminal justice agency and the noncriminal justice agency when responsibility for a criminal justice system has been delegated by a criminal justice agency to a noncriminal justice agency, which has in turn entered into an agreement with a contractor. The agency liaison shall, inter alia, monitor compliance with system security requirements. In instances in which the noncriminal justice agency's authority is directly from the CJIS systems agency, there is no requirement for the appointment of an agency liaison.

Authorized User/Personnel — An individual, or group of individuals, who have been appropriately vetted through a national fingerprint-based record check and have been granted access to CJI data.

Authorized Recipient — (1) A criminal justice agency or federal agency authorized to receive CHRI pursuant to federal statute or executive order; (2) A nongovernmental entity authorized by federal statute or executive order to receive CHRI for noncriminal justice purposes; or (3) A government agency authorized by federal statute or executive order, or state statute which has been approved by the United States Attorney General to receive CHRI for noncriminal justice purposes.

Availability — The degree to which information, a system, subsystem, or equipment is operable and in a useable state; frequently represented as a proportion of time the element is in a functioning condition.

Biographic Data — Information collected about individuals associated with a unique case, and not necessarily connected to identity data. Biographic Data does not provide a history of an individual, only information related to a unique case.

Biometric Data — When applied to CJI, it is used to identify individuals, and includes the following types: finger prints, palm prints, DNA, iris, and facial recognition.

Case / Incident History — All relevant information gathered about an individual, organization, incident, or combination thereof, arranged so as to serve as an organized record to provide

analytic value for a criminal justice organization. In regards to CJI, it is the information about the history of criminal incidents.

Channeler — An FBI approved contractor, who has entered into an agreement with an Authorized Recipient(s), to receive noncriminal justice applicant fingerprint submissions and collect the associated fees. The Channeler ensures fingerprint submissions are properly and adequately completed, electronically forwards fingerprint submissions to the FBI's CJIS Division for national noncriminal justice criminal history record check, and receives electronic record check results for dissemination to Authorized Recipients. A Channeler is essentially an "expediter" rather than a user of criminal history record check results.

CJIS Advisory Policy Board (APB) — The governing organization within the FBI CJIS Advisory Process composed of representatives from criminal justice and national security agencies within the United States. The APB reviews policy, technical, and operational issues relative to CJIS Division programs and makes subsequent recommendations to the Director of the FBI.

CJIS Audit Unit (CAU) — The organization within the FBI CJIS Division responsible to perform audits of CSAs to verify compliance with the CJIS Security Policy.

CJIS Security Policy — The FBI CJIS Security Policy document as published by the FBI CJIS ISO; the document containing this glossary.

CJIS Systems Agency (CSA) — A duly authorized state, federal, international, tribal, or territorial criminal justice agency on the CJIS network providing statewide (or equivalent) service to its criminal justice users with respect to the CJIS data from various systems managed by the FBI CJIS Division. There shall be only one CSA per state or territory. In federal agencies, the CSA may be the interface or switch to other federal agencies connecting to the FBI CJIS systems.

CJIS Systems Agency Information Security Officer (CSA ISO) — The appointed FBI CJIS Division personnel responsible to coordinate information security efforts at all CJIS interface agencies.

CJIS Systems Officer (CSO) — An individual located within the CJIS Systems Agency responsible for the administration of the CJIS network on behalf for the CJIS Systems Agency.

Compact Council — The entity created by the National Crime Prevention and Privacy Compact of 1998 that has the authority to promulgate rules and procedures governing the use of the III system for noncriminal justice purposes.

Compact Officers — The leadership of the Compact Council, oversees the infrastructure established by the National Crime Prevention and Privacy Compact Act of 1998, which is used by ratifying states to exchange criminal records for noncriminal justice purposes. Their primary responsibilities are to promulgate rules and procedures for the effective and appropriate use of the III system.

Computer Security Incident Response Capability (CSIRC) — A collection of personnel, systems, and processes that are used to efficiently and quickly manage a centralized response to any sort of computer security incident which may occur.

Confidentiality — The concept of ensuring that information is observable only to those who have been granted authorization to do so.

Contractor — A private business, agency or individual which has entered into an agreement for the administration of criminal justice or noncriminal justice functions with a Criminal Justice Agency or a Noncriminal Justice Agency. Also, a private business approved by the FBI CJIS Division to contract with Noncriminal Justice Agencies to perform noncriminal justice functions associated with civil fingerprint submission for hiring purposes.

Contracting Government Agency (CGA) — The government agency, whether a Criminal Justice Agency or a Noncriminal Justice Agency, which enters into an agreement with a private contractor.

Crime Reports Data — The data collected through the Uniform Crime Reporting program and reported upon annually by the FBI CJIS division used to analyze the crime statistics for the United States.

Criminal History Record Information (CHRI) — A subset of CJJ. Any notations or other written or electronic evidence of an arrest, detention, complaint, indictment, information or other formal criminal charge relating to an identifiable person that includes identifying information regarding the individual as well as the disposition of any charges.

Criminal Justice Agency (CJA) — The courts, a governmental agency, or any subunit of a governmental agency which performs the administration of criminal justice pursuant to a statute or executive order and which allocates a substantial part of its annual budget to the administration of criminal justice. State and federal Inspectors General Offices are included.

Criminal Justice Agency User Agreement — A terms-of-service agreement that must be signed prior to accessing CJJ. This agreement is required by each CJA and spells out user's responsibilities, the forms and methods of acceptable use, penalties for their violation, disclaimers, and so on.

Criminal Justice Conveyance — A criminal justice conveyance is any mobile vehicle used for the purposes of criminal justice activities with the capability to comply, during operational periods, with the requirements of section 5.9.1.3.

Criminal Justice Information (CJI) — Criminal Justice Information is the abstract term used to refer to all of the FBI CJIS provided data necessary for law enforcement agencies to perform their mission and enforce the laws, including but not limited to: biometric, identity history, person, organization, property, and case/incident history data. In addition, CJI refers to the FBI CJIS-provided data necessary for civil agencies to perform their mission; including, but not limited to data used to make hiring decisions.

Criminal Justice Information Services Division (FBI CJIS or CJIS) — The FBI division responsible for the collection, warehousing, and timely dissemination of relevant CJI to the FBI and to qualified law enforcement, criminal justice, civilian, academic, employment, and licensing agencies.

Data — See Information and CJI.

Degauss — Neutralize a magnetic field to erase information from a magnetic disk or other storage device. In the field of information technology, degauss has become synonymous with erasing information whether or not the medium is magnetic. In the event the device to be degaussed is not magnetic (e.g. solid state drive, USB storage device), steps other than magnetic degaussing may be required to render the information irretrievable from the device.

Department of Justice (DoJ) — The Department within the U.S. Government responsible to enforce the law and defend the interests of the United States according to the law, to ensure public safety against threats foreign and domestic, to provide federal leadership in preventing and controlling crime, to seek just punishment for those guilty of unlawful behavior, and to ensure fair and impartial administration of justice for all Americans.

Direct Access — (1) Having the authority to access systems managed by the FBI CJIS Division, whether by manual or automated methods, not requiring the assistance of, or intervention by, any other party or agency (28 CFR, Chapter 1, Part 20). (2) Having the authority to query or update national databases maintained by the FBI CJIS Division including national queries and updates automatically or manually generated by the CSA.

Dissemination — The transmission/distribution of CJI to Authorized Recipients within an agency.

Federal Bureau of Investigation (FBI) — The agency within the DOJ responsible to protect and defend the United States against terrorist and foreign intelligence threats, to uphold and enforce the criminal laws of the United States, and to provide leadership and criminal justice services to federal, state, municipal, and international agencies and partners.

FBI CJIS Information Security Officer (FBI CJIS ISO) — The FBI personnel responsible for the maintenance and dissemination of the FBI CJIS Security Policy; the liaison between the FBI and the CSA's ISOs and other relevant security points-of-contact (POCs); the provider of technical guidance as to the intent and implementation of technical policy issues; the POC for computer incident notification which also disseminates security alerts to the CSOs and ISOs.

Federal Information Security Management Act (FISMA) — The Federal Information Security Management Act of 2002, a US Federal law that established information security standards for the protection of economic and national security interests of the United States. It requires each federal agency to develop, document, and implement an agency-wide program to provide information security for the information and information systems that support the operations and assets of the agency, including those provided or managed by another agency, contractor, or other source.

For Official Use Only (FOUO) — A caveat applied to unclassified sensitive information that may be exempt from mandatory release to the public under the Freedom of Information Act (FOIA), 5 U.S.C 522. In general, information marked FOUO shall not be disclosed to anybody except Government (Federal, State, tribal, or local) employees or contractors with a need to know.

Guest Operating System — An operating system that has emulated hardware presented to it by a host operating system. Also referred to as the virtualized operating system.

Host Operating System — In the context of virtualization, the operating system that interfaces with the actual hardware and arbitrates between it and the guest operating systems. It is also referred to as a hypervisor.

Hypervisor — See Host Operating System.

Identity History Data — Textual data that corresponds with an individual's biometric data, providing a history of criminal and/or civil events for the identified individual.

Information — See data and CJI.

Information Exchange Agreement — An agreement that codifies the rules by which two parties engage in the sharing of information. These agreements typically include language which establishes some general duty-of-care over the other party's information, whether and how it can be further disseminated, penalties for violations, the laws governing the agreement (which establishes venue), procedures for the handling of shared information at the termination of the agreement, and so on. This document will ensure consistency with applicable federal laws, directives, policies, regulations, standards and guidance.

Information Security Officer (ISO) — Typically a member of an organization who has the responsibility to establish and maintain information security policy, assesses threats and vulnerabilities, performs risk and control assessments, oversees the governance of security operations, and establishes information security training and awareness programs. The ISO also usually interfaces with security operations to manage implementation details and with auditors to verify compliance to established policies.

Information System — A system of people, data, and processes, whether manual or automated, established for the purpose of managing information.

Integrated Automated Fingerprint Identification System (IAFIS) — The national fingerprint and criminal history system maintained by the FBI CJIS Division that provides the law enforcement community with automated fingerprint search capabilities, latent searching capability, electronic image storage, and electronic exchange of fingerprints and responses.

Integrity — The perceived consistency of expected outcomes, actions, values, and methods of an individual or organization. As it relates to data, it is the concept that data is preserved in a consistent and correct state for its intended use.

Interconnection Security Agreement (ISA) — An agreement much like an Information Exchange Agreement as mentioned above, but concentrating more on formalizing the technical and security requirements pertaining to some sort of interface between the parties' information systems.

Interface Agency — A legacy term used to describe agencies with direct connections to the CSA. This term is now used predominantly in a common way to describe any sub-agency of a CSA or SIB that leverages the CSA or SIB as a conduit to FBI CJIS information.

Interstate Identification Index (III) — The CJIS service that manages automated submission and requests for CHRI that is warehoused subsequent to the submission of fingerprint information. Subsequent requests are directed to the originating State as needed.

Law Enforcement Online (LEO) — A secure, Internet-based communications portal provided by the FBI CJIS Division for use by law enforcement, first responders, criminal justice professionals, and anti-terrorism and intelligence agencies around the globe. Its primary purpose is to provide a platform on which various law enforcement agencies can collaborate on FOUO matters.

Local Agency Security Officer (LASO) — The primary Information Security contact between a local law enforcement agency and the CSA under which this agency interfaces with the FBI CJIS Division. The LASO actively represents their agency in all matters pertaining to Information Security, disseminates Information Security alerts and other material to their constituents, maintains Information Security documentation (including system configuration

data), assists with Information Security audits of hardware and procedures, and keeps the CSA informed as to any Information Security needs and problems.

Management Control Agreement (MCA) — An agreement between parties that wish to share or pool resources that codifies precisely who has administrative control over, versus overall management and legal responsibility for, assets covered under the agreement. An MCA must ensure the CJA's authority remains with regard to all aspects of section 3.2.2. The MCA usually results in the CJA having ultimate authority over the CJI supporting infrastructure administered by the NCJA.

National Crime Information Center (NCIC) — An information system which stores CJI which can be queried by appropriate Federal, state, and local law enforcement and other criminal justice agencies.

National Instant Criminal Background Check System (NICS) — A system mandated by the Brady Handgun Violence Prevention Act of 1993 that is used by Federal Firearms Licensees (FFLs) to instantly determine via telephone or other electronic means whether the transfer of a firearm would be in violation of Section 922 (g) or (n) of Title 18, United States Code, or state law, by evaluating the prospective buyer's criminal history.

National Institute of Standards and Technology (NIST) — Founded in 1901, NIST is a non-regulatory federal agency within the U.S. Department of Commerce whose mission is to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic and national security.

Noncriminal Justice Agency (NCJA) — A governmental agency, or any subunit thereof, that provides services primarily for purposes other than the administration of criminal justice. Examples of services include, but not limited to, employment suitability, licensing determinations, immigration and naturalization matters, and national security clearances.

NCJA (Government) — A Federal, state, local, or tribal governmental agency or any subunit thereof whose charter does not include the responsibility to administer criminal justice, but may have a need to process CJI. An example would be the central IT organization within a state government that administers equipment on behalf of a state law-enforcement agency.

NCJA (Private) — A private agency or subunit thereof whose charter does not include the responsibility to administer criminal justice, but may have a need to process CJI. An example would include a local bank.

NCJA (Public) — A public agency or sub-unit thereof whose charter does not include the responsibility to administer criminal justice, but may have a need to process CJI. An example would include a county school board which uses CHRI to assist in employee hiring decisions.

Noncriminal Justice Purpose — The uses of criminal history records for purposes authorized by federal or state law other than purposes relating to the administration of criminal justice, including employment suitability, licensing determinations, immigration and naturalization matters, and national security clearances.

Office of Management and Budget (OMB) — The agency within the Executive Branch of the Federal government responsible to oversee the preparation of the federal budget, to assist in the supervision of other Executive Branch agencies, and to oversee and coordinate the Presidential Administration's procurement, financial management, information, and regulatory policies.

Outsourcing — The process of delegating in-house operations to a third-party. For instance, when the administration of criminal justice functions (network operations, dispatch functions, system administration operations, etc.) are performed for the criminal justice agency by a city or county information technology department or are contracted to be performed by a vendor.

Outsourcing Standard — National Crime Prevention and Privacy Compact Council's Outsourcing Standard. The Compact Council's uniform standards and processes for the interstate and Federal-State exchange of criminal history records for noncriminal justice purposes.

Physically Secure Location — A facility or an area, a room, or a group of rooms, within a facility with both the physical and personnel security controls sufficient to protect CJI and associated information systems. For interim compliance, a police vehicle shall be considered a physically secure location until September 30th, 2013. For the purposes of this policy, a police vehicle is defined as an enclosed criminal justice conveyance with the capability to comply, during operational periods, with section 5.9.1.3.

Personal Firewall — An application which controls network traffic to and from a computer, permitting or denying communications based on a security policy.

Personally Identifiable Information (PII) — PII is information which can be used to distinguish or trace an individual's identity, such as name, social security number, or biometric records, alone or when combined with other personal or identifying information which is linked or linkable to a specific individual, such as date and place of birth, or mother's maiden name.

Property Data — Information about vehicles and property associated with a crime.

Rap Back — An IAFIS service that allows authorized agencies to receive notification of subsequent criminal activity reported to the FBI committed by persons of interest.

Repository Manager — The designated manager of the agency having oversight responsibility for a CSA's fingerprint identification services. If both state fingerprint identification services and CJIS systems control are managed within the same state agency, the repository manager and CSO may be the same person.

Secondary Dissemination — The promulgation of CJI from a releasing agency to an authorized recipient agency when the recipient agency has not been previously identified in a formal information exchange agreement.

Security Addendum (SA) — A uniform addendum to an agreement between the government agency and a private contractor, approved by the Attorney General of the United States, which specifically authorizes access to criminal history record information, limits the use of the information to the purposes for which it is provided, ensures the security and confidentiality of the information consistent with existing regulations and the CJIS Security Policy, provides for sanctions, and contains such other provisions as the Attorney General may require.

Sensitive But Unclassified (SBU) — Designation of information in the United States federal government that, though unclassified, often requires strict controls over its distribution. SBU is a broad category of information that includes material covered by such designations as For Official Use Only (FOUO), Law Enforcement Sensitive (LES), Sensitive Homeland Security Information, Security Sensitive Information (SSI), Critical Infrastructure Information (CII), etc. Some categories of SBU information have authority in statute or regulation (e.g. SSI, CII) while

others, including FOUO, do not. As of May 9, 2008, the more appropriate terminology to use is Controlled Unclassified Information (CUI).

Service — The organized system of apparatus, appliances, personnel, etc, that supply some tangible benefit to the consumers of this service. In the context of CJI, this usually refers to one of the applications that can be used to process CJI.

Shredder — A device used for shredding documents, often as a security measure to prevent unapproved persons from reading them. Strip-cut shredders, also known as straight-cut or spaghetti-cut, slice the paper into long, thin strips but are not considered secure. Cross-cut shredders provide more security by cutting paper vertically and horizontally into confetti-like pieces.

Social Engineering — The act of manipulation people into performing actions or divulging confidential information. While similar to a confidence trick or simple fraud, the term typically applies to trickery or deception for the purpose of information gathering, fraud, or computer system access; in most cases the attacker never comes face-to-face with the victim.

Software Patch — A piece of software designed to fix problems with, or update, a computer program or its supporting data. This includes fixing security vulnerabilities and other bugs and improving the usability or performance. Though meant to fix problems, poorly designed patches can sometimes introduce new problems. As such, patches should be installed in a test environment prior to being installed in a live, operational system. Patches often can be found in multiple locations but should be retrieved only from sources agreed upon through organizational policy.

State and Federal Agency User Agreement — A written agreement that each CSA or SIB Chief shall execute with the FBI CJIS Division stating their willingness to demonstrate conformance with the FBI CJIS Security Policy prior to the establishment of connectivity between organizations. This agreement includes the standards and sanctions governing use of CJIS systems, as well as verbiage to allow the FBI to periodically audit the CSA as well as to allow the FBI to penetration test its own network from the CSA's interfaces to it.

State Compact Officer — The representative of a state that is party to the National Crime Prevention and Privacy Compact, and is the chief administrator of the state's criminal history record repository or a designee of the chief administrator who is a regular full-time employee of the repository.

State Identification Bureau (SIB) — The state agency with the responsibility for the state's fingerprint identification services.

State Identification Bureau (SIB) Chief — The SIB Chief is the designated manager of state's SIB. If both state fingerprint identification services and CJIS systems control are managed within the same state agency, the SIB Chief and CSO may be the same person.

System — Refer to connections to the FBI's criminal justice information repositories and the equipment used to establish said connections. In the context of CJI, this usually refers to applications and all interconnecting infrastructure required to use those applications that process CJI.

Terminal Agency Coordinator (TAC) — Serves as the point-of-contact at the local agency for matters relating to CJIS information access. A TAC administers CJIS systems programs within the local agency and oversees the agency's compliance with CJIS systems policies.

Virtualization — Refers to a methodology of dividing the resources of a computer (hardware and software) into multiple execution environments, by applying one or more concepts or technologies such as hardware and software partitioning, time-sharing, partial or complete machine simulation or emulation allowing multiple operating systems, or images, to run concurrently on the same hardware.

APPENDIX B ACRONYMS

Acronym	Term
AA	Advanced Authentication
AC	Agency Coordinator
ACL	Access Control List
AES	Advanced Encryption Standard
AP	Access Point
APB	Advisory Policy Board
BD-ADDR	Bluetooth-Enabled Wireless Devices and Addresses
CAD	Computer-Assisted Dispatch
CAU	CJIS Audit Unit
CFR	Code of Federal Regulations
CGA	Contracting Government Agency
CHRI	Criminal History Record Information
CJA	Criminal Justice Agency
CJI	Criminal Justice Information
CJIS	Criminal Justice Information Services
ConOps	Concept of Operations
CSA	CJIS Systems Agency
CSIRC	Computer Security Incident Response Capability
CSO	CJIS Systems Officer
DAA	Designated Approving Authority
DoJ	Department of Justice
DoJCERT	DoJ Computer Emergency Response Team

FBI	Federal Bureau of Investigation
FIPS	Federal Information Processing Standards
FISMA	Federal Information Security Management Act
FOIA	Freedom of Information Act
FOUO	For Official Use Only
HTTP	Hypertext Transfer Protocol
IAFIS	Integrated Automated Fingerprint Identification System
IDS	Intrusion Detection System
III	Interstate Identification Index
IP	Internet Protocol
IPS	Intrusion Prevention System
IPSEC	Internet Protocol Security
ISA	Interconnection Security Agreement
ISO	Information Security Officer
IT	Information Technology
LASO	Local Agency Security Officer
LEO	Law Enforcement Online
MAC	Media Access Control
MCA	Management Control Agreement
MITM	Man-in-the-Middle
MOU	Memorandum of Understanding
NCIC	National Crime Information Center
NCJA	Noncriminal Justice Agency
NICS	National Instant Criminal Background Check System
NIST	National Institute of Standards and Technology

OMB	Office of Management and Budget
ORI	Originating Agency Identifier
PDA	Personal Digital Assistant
PII	Personally Identifiable Information
PIN	Personal Identification Number
PKI	Public Key Infrastructure
POC	Point-of-Contact
QA	Quality Assurance
RF	Radio Frequency
SA	Security Addendum
SCO	State Compact Officer
SIB	State Identification Bureau
SIG	Special Interest Group
SP	Special Publication
SSID	Service Set Identifier
TAC	Terminal Agency Coordinator
TLS	Transport Layer Security
VLAN	Virtual Local Area Network
VoIP	Voice Over Internet Protocol
VPN	Virtual Private Network
WEP	Wired Equivalent Privacy
WLAN	Wireless Local Area Network
WPA	Wi-Fi Protected Access

APPENDIX C NETWORK TOPOLOGY DIAGRAMS

Network diagrams, i.e. topological drawings, are an essential part of solid network security. Through graphical illustration, a comprehensive network diagram provides the “big picture” – enabling network managers to quickly ascertain the interconnecting nodes of a network for a multitude of purposes, including troubleshooting and optimization. Network diagrams are integral to demonstrating the manner in which each agency ensures criminal justice data is afforded appropriate technical security protections and is protected during transit and at rest.

The following diagrams, labeled Appendix C.1-A through C.1-E, are examples for agencies to utilize during the development, maintenance, and update stages of their own network diagrams. By using these example drawings as a guideline, agencies can form the foundation for ensuring compliance with Section 5.7.1.2 of the CJIS Security Policy.

The purpose for including the following diagrams in this policy is to aid agencies in their understanding of diagram expectations and should not be construed as a mandated method for network topologies. It should also be noted that agencies are not required to use the identical icons depicted in the example diagrams and should not construe any depiction of a particular vendor product as an endorsement of that product by the FBI CJIS Division.

Appendix C.1-A is a conceptual overview of the various types of agencies that can be involved in handling of CJIS data, and illustrates several ways in which these interconnections might occur. This diagram is not intended to demonstrate the level of detail required for any given agency’s documentation, but it provides the reader with some additional context through which to digest the following diagrams. Take particular note of the types of network interfaces in use between agencies, in some cases dedicated circuits with encryption mechanisms, and in other cases VPNs over the Internet. This diagram attempts to show the level of diversity possible within the law enforcement community. These diagrams in no way constitute a standard for network engineering, but rather, for the expected quality of documentation.

The next four topology diagrams are of two separate types: those for strictly conceptual agencies, C.1-B through C.1-D, and one documenting an actual municipal law-enforcement agency’s equipment, C.1-E. For C.1-B through C.1-D, the details identifying specific “moving parts” in the diagrams by manufacturer and model are omitted, but it is expected that any agencies producing such documentation will provide diagrams with full manufacturer and model detail for each element of the diagram as is demonstrated in C.1-E. Note that the quantities of clients should be documented in order to assist the auditor in understanding the scale of assets and information being protected.

Appendix C.1-B depicts a conceptual state law enforcement agency’s network topology and demonstrates a number of common technologies that are in use throughout the law enforcement community (some of which are compulsory per CJIS policy, and some of which are optional) including Mobile Broadband cards, VPNs, Firewalls, Intrusion Detection Devices, VLANs, and so forth. Note that although most state agencies will likely have highly-available configurations, the example diagram shown omits these complexities and only shows the “major moving parts” for clarity but please note the policy requires the logical location of all components be shown. The level of detail depicted should provide the reader with a pattern to model future documentation from, but should not be taken as network engineering guidance.

Appendix C.1-C depicts a conceptual county law enforcement agency. A number of common technologies are presented merely to reflect the diversity in the community, including proprietary Packet-over-RF infrastructures and advanced authentication techniques, and to demonstrate the fact that agencies can act as proxies for other agencies.

Appendix C.1-D depicts a conceptual municipal law enforcement agency, presumably a small one that lacks any precinct-to-patrol data communications. This represents one of the smallest designs that could be assembled that, assuming all other details are properly considered, would meet the criteria for Section 5.7.1.2. This diagram helps to demonstrate the diversity in size that agencies handling criminal justice data exhibit.

Appendix C.1-E depicts an actual municipal police force's topology, and demonstrates the level of detail suitable to assist an auditor. It also shows a few more common technologies in use, namely thin-client computing, advanced authentication services, and so on.

Figure C-1-A Overview: Conceptual Connections Between Various Agencies

Overview: Conceptual Connections Between Various Agencies

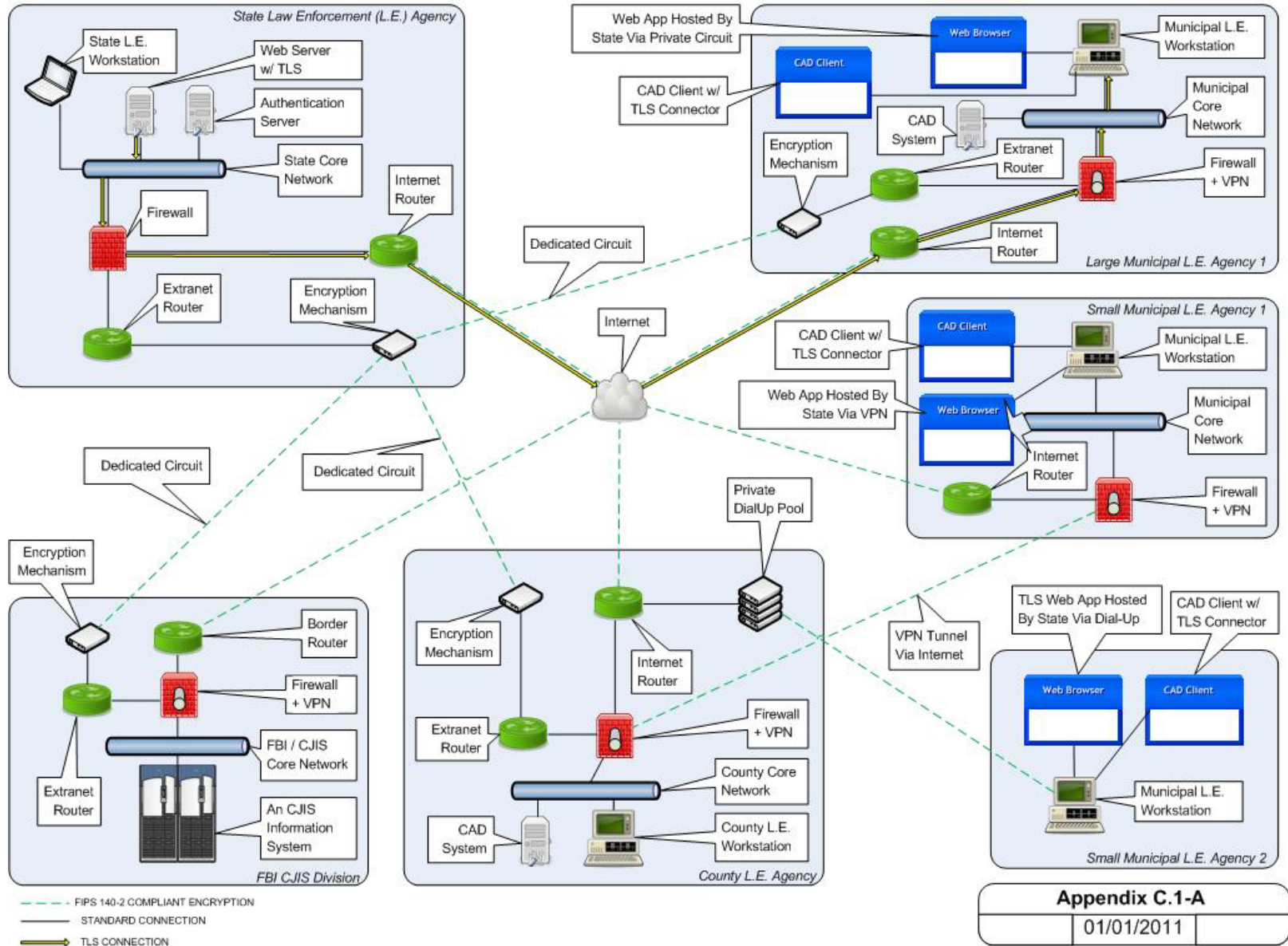
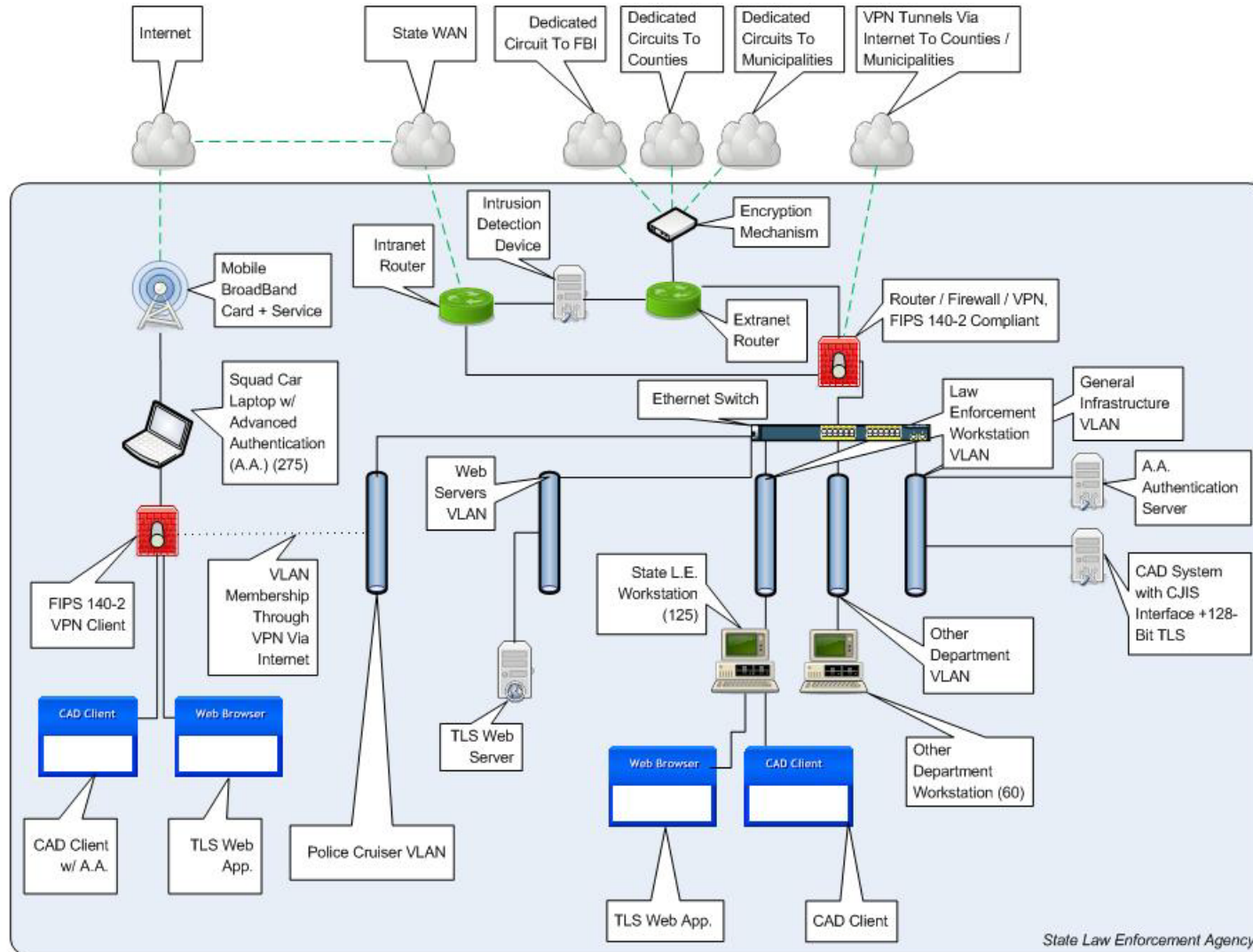


Figure C-1-B Conceptual Topology Diagram for a State Law Enforcement Agency

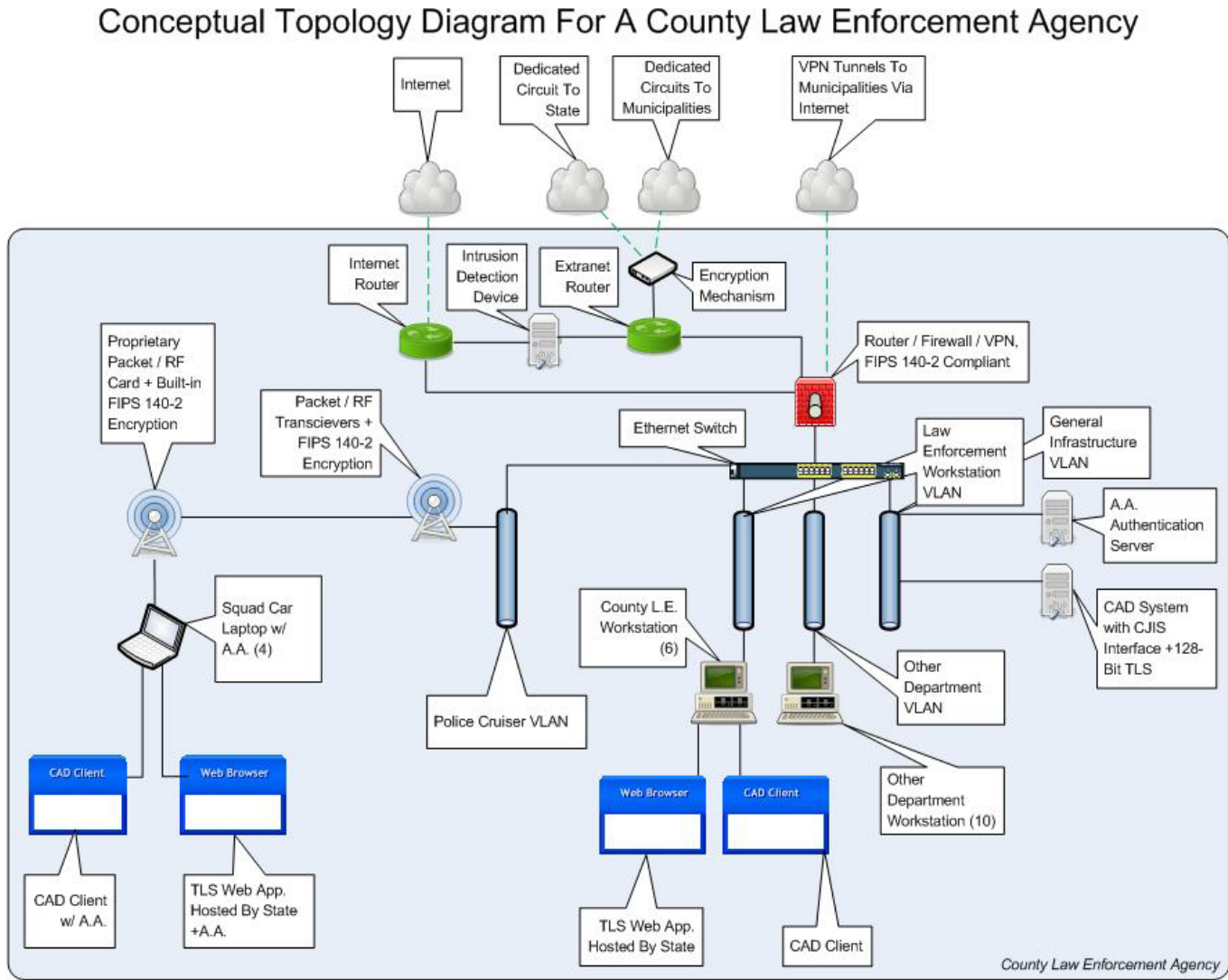
Conceptual Topology Diagram For A State Law Enforcement Agency



--- FIPS 140-2 COMPLIANT ENCRYPTION
 ——— STANDARD CONNECTION

Appendix C.1-B	
01/01/2011	

Figure C-1-C Conceptual Topology Diagram for a County Law Enforcement Agency

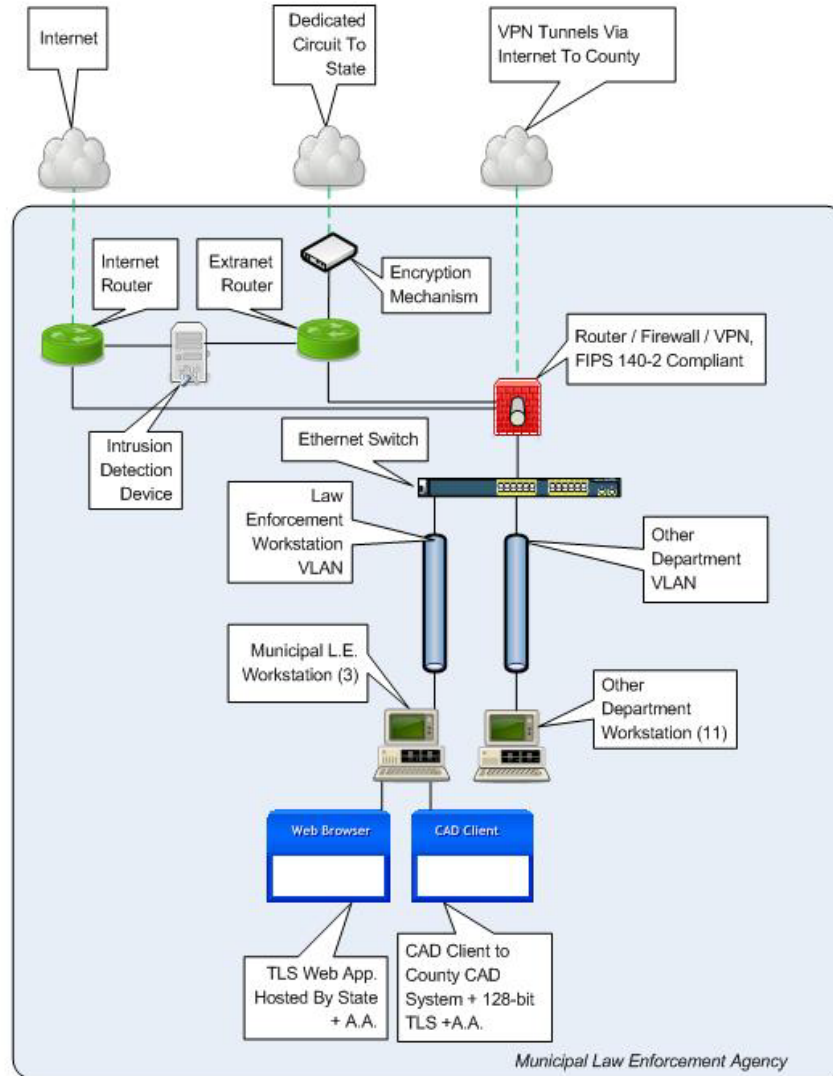


--- FIPS 140-2 COMPLIANT ENCRYPTION
 ——— STANDARD CONNECTION

Appendix C.1-C	
01/01/2011	

Figure C-1-D Conceptual Topology Diagram for a Municipal Law Enforcement Agency

Conceptual Topology Diagram For A Municipal Law Enforcement Agency



--- FIPS 140-2 COMPLIANT ENCRYPTION
 ——— STANDARD CONNECTION

Appendix C.1-D		
	01/01/2011	

APPENDIX D SAMPLE INFORMATION EXCHANGE AGREEMENTS

D-1. CJIS User Agreement

CRIMINAL JUSTICE INFORMATION SERVICES (CJIS) SYSTEMS USER AGREEMENT

The FBI CJIS Division provides state-of-the-art identification and information services to the local, state, tribal, federal, and international criminal justice communities, as well as the noncriminal justice community, for licensing and employment purposes. These services are administered and maintained by the FBI CJIS Division and managed in cooperation with the CJIS Systems Agency (CSA) and its administrator for CJIS data, the CJIS Systems Officer (CSO). The CJIS Systems include, but are not limited to: the Interstate Identification Index (III); National Crime Information Center (NCIC); Uniform Crime Reporting (UCR), whether summary or incident-based reporting to the National Incident-Based Reporting System; Fingerprint Identification Record System; Law Enforcement National Data Exchange (N-DEX); Law Enforcement Online; and the National Instant Criminal Background Check System (NICS).

The FBI CJIS Division provides the following services to its users, as applicable:

1. Operational, technical, and investigative assistance.
2. Telecommunication lines to state, federal, and regulatory interfaces.
3. Legal and legislative review of matters pertaining to all CJIS Systems.
4. Timely information on all aspects of all CJIS Systems and other related programs by means of operating manuals, code manuals, technical and operational updates, various newsletters, information letters, frequently asked questions, and other relevant documents.
5. Training assistance and up-to-date materials provided to each CSO, NICS Point of Contact (POC), state Compact Officer, State Administrator, Information Security Officer (ISO), and other appropriate personnel.
6. Ongoing assistance to Systems' users through meetings and briefings with the CSOs, State Administrators, Compact Officers, ISOs, and NICS State POCs to discuss operational and policy issues.
7. Advisory Process through which authorized users have input as to the policies and procedures governing the operation of CJIS programs.

8. National Crime Prevention and Privacy Compact Administrative Office through which states and other authorized users may submit issues concerning the noncriminal justice use of the III System.
9. Annual NICS Users Conference.
10. Audit.
11. Staff research assistance.

PART 1

The purpose behind a designated CSO is to unify responsibility for Systems user discipline and to ensure adherence to established procedures and policies within each signatory state/territory/tribal agency and by each federal user. This agreement outlines the responsibilities of each CSO as they relate to all CJIS Systems and other related CJIS administered programs. These individuals are ultimately responsible for planning necessary hardware, software, funding, and training for access to all CJIS Systems.

To ensure continued access as set forth above, the CSA agrees to adhere to all applicable CJIS policies including, but not limited to, the following:

1. The signatory state/tribal agency will provide fingerprints that meet submission criteria for all qualifying arrests. In addition, states/tribal agencies will make their records available for interstate exchange for criminal justice and other authorized purposes unless restricted by state/tribal law, and, where applicable, continue to move toward participation in the III and, upon ratification of the National Crime Prevention and Privacy Compact, the National Fingerprint File.
2. Appropriate and reasonable quality assurance procedures; e.g., hit confirmation, audits for record timeliness, and validation, must be in place to ensure that only complete, accurate, and valid information is maintained in the CJIS Systems.
3. Biannual file synchronization of information entered into the III by participating states.
4. Security - Each agency is responsible for appropriate security measures as applicable to physical security of terminals and telecommunication lines; personnel security to include background screening requirements; technical security to protect against unauthorized use; data security to include III use, dissemination, and logging; and security of criminal history records. Additionally, each CSO must ensure that all agencies establish an

information security structure that provides for an ISO and complies with the CJIS Security Policy.

5. Audit - Each agency shall be responsible for complying with all audit requirements for use of CJIS Systems. Each CSO is responsible for completing a triennial audit of all agencies with access to CJIS Systems through the CSO's lines.
6. Training - Each agency shall be responsible for training requirements, including compliance with operator training mandates.
7. Integrity of the Systems - Each agency shall be responsible for maintaining the integrity of the system in accordance with FBI CJIS Division/state/federal/tribal policies to ensure only authorized terminal access; only authorized transaction submission; and proper handling and dissemination of CJIS data. Each agency shall also be responsible for computer security incident reporting as required by the *CJIS Security Policy*.

The following documents are incorporated by reference and made part of this agreement for CSA users:

1. Bylaws for the CJIS Advisory Policy Board and Working Groups.
2. CJIS Security Policy.
3. Interstate Identification Index Operational and Technical Manual, National Fingerprint File Operations Plan, NCIC 2000 Operating Manual, UCR Handbook-NIBRS Edition, and National Incident-Based Reporting System Volumes 1, 2, and 4.
4. National Crime Prevention and Privacy Compact, 42 United States Code (U.S.C.) §14616.
5. NCIC Standards and UCR Standards, as recommended by the CJIS Advisory Policy Board.
6. The National Fingerprint File Qualification Requirements.
7. Title 28, Code of Federal Regulations, Parts 20 and 25, §50.12, and Chapter IX.
8. Electronic Fingerprint Transmission Specifications.

9. Other relevant documents, to include: NCIC Technical and Operational Updates, CJIS Information Letters, NICS User Manual, NICS Interface Control Document.
10. Applicable federal, state, and tribal laws and regulations.

PART 2

Additionally, there are authorized federal regulatory recipients and other authorized users that provide electronic fingerprint submissions through a CJIS Wide Area Network (WAN) connection (or other approved form of electronic connection) to the CJIS Division that are required to comply with the following CJIS policies:

1. The authorized user will provide fingerprints that meet submission criteria and apply appropriate and reasonable quality assurance procedures.
2. Security - Each agency is responsible for appropriate security measures as applicable to physical security of communication equipment; personnel security to include background screening requirements; technical security to protect against unauthorized use; and security of criminal history records.
3. Audit - Each authorized user shall be responsible for complying with all audit requirements for CJIS Systems. Additionally, each authorized user is subject to a triennial audit by the CJIS Division Audit staff.
4. Training - Each authorized user receiving criminal history record information shall be responsible for training requirements, including compliance with proper handling of criminal history records.

The following documents are incorporated by reference and made part of this agreement for non-CSA authorized users:

1. CJIS Security Policy.
2. National Crime Prevention and Privacy Compact, 42 U.S.C. §14616.
3. Title 28, Code of Federal Regulations, Parts 20 and 25, § 50.12, and Chapter IX.
4. Other relevant documents, to include CJIS Information Letters.

5. Applicable federal, state, and tribal laws and regulations.

GENERAL PROVISIONS

Funding:

Unless otherwise agreed in writing, each party shall bear its own costs in relation to this agreement. Expenditures will be subject to federal and state budgetary processes and availability of funds pursuant to applicable laws and regulations. The parties expressly acknowledge that this in no way implies that Congress will appropriate funds for such expenditures.

Termination:

1. All activities of the parties under this agreement will be carried out in accordance to the above-described provisions.
2. This agreement may be amended or terminated by the mutual written consent of the parties authorized representatives.
3. Either party may terminate this agreement upon 30-days written notification to the other party. Such notice will be the subject of immediate consultation by the parties to decide upon the appropriate course of action. In the event of such termination, the following rules apply:
 - a. The parties will continue participation, financial or otherwise, up to the effective date of termination.
 - b. Each party will pay the costs it incurs as a result of termination.
 - c. All information and rights therein received under the provisions of this agreement prior to the termination will be retained by the parties, subject to the provisions of this agreement.

ACKNOWLEDGMENT AND CERTIFICATION

As a CSO or CJIS WAN Official (or other CJIS authorized official), I hereby acknowledge the duties and responsibilities as set out in this agreement. I acknowledge that these duties and responsibilities have been developed and approved by CJIS Systems users to ensure the reliability, confidentiality, completeness, and accuracy of all information contained in, or obtained by means of, the CJIS Systems. I further acknowledge that failure to comply with these duties and responsibilities may result in the imposition of sanctions against the offending state/agency; other federal, tribal, state, and local criminal justice users; and approved noncriminal justice users with System access, whether direct or indirect. The Director of the FBI (or the National Crime Prevention and Privacy Compact Council), may approve sanctions to include the termination of CJIS services.

I hereby certify that I am familiar with all applicable documents that are made part of this agreement and to all applicable federal and state laws and regulations relevant to the receipt and dissemination of documents provided through the CJIS Systems.

This agreement is a formal expression of the purpose and intent of both parties and is effective when signed. It may be amended by the deletion or modification of any provision contained therein, or by the addition of new provisions, after written concurrence of both parties. The "Acknowledgment and Certification" is being executed by the CSO or CJIS WAN Official (or other CJIS authorized official) in both an individual and representative capacity. Accordingly, this agreement will remain in effect after the CSO or CJIS WAN Official (or other CJIS authorized official) vacates his/her position or until it is affirmatively amended or rescinded in writing. This agreement does not confer, grant, or authorize any rights, privileges, or obligations to any third party.

SYSTEMS USER AGREEMENT

Please execute either Part 1 or Part 2

PART 1

_____ Date: _____
CJIS Systems Officer

Printed Name/Title

CONCURRENCE OF CSA HEAD:
_____ Date: _____
CSA Head

Printed Name/Title

PART 2

_____ Date: _____
CJIS WAN Official (or other CJIS Authorized Official)

Printed Name/Title

CONCURRENCE OF CJIS WAN AGENCY HEAD:
_____ Date: _____
CJIS WAN Agency Head

Printed Name/Title

FBI CJIS DIVISION:

Date: _____

Daniel D. Roberts
Assistant Director
FBI CJIS Division

* The FBI Designated Federal Officer should be notified when a CSO or other CJIS WAN/authorized Official vacates his/her position. The name and telephone number of the Acting CSO or other CJIS WAN/authorized Official, and when known, the name and telephone number of the new CSO or other CJIS WAN/authorized Official, should be provided. Revised: 05/03/2006

D-2. Management Control Agreement

Management Control Agreement

Pursuant to the CJIS Security Policy Version 5, Sections 3.2.2 and 5.1, it is agreed that with respect to administration of that portion of computer systems and network infrastructure interfacing directly or indirectly with the state network (Network Name) for the interstate exchange of criminal history/criminal justice information, the (Criminal Justice Agency) shall have the authority, via managed control, to set and enforce:

- (1) Priorities.
- (2) Standards for the selection, supervision, and termination of personnel.
- (3) Policy governing operation of justice systems, computers, access devices, circuits, hubs, routers, firewalls, and any other components, including encryption, that comprise and support a telecommunications network and related criminal justice systems to include but not limited to criminal history record/criminal justice information, insofar as the equipment is used to process or transmit criminal justice systems information guaranteeing the priority, integrity, and availability of service needed by the criminal justice community.
- (4) Restriction of unauthorized personnel from access or use of equipment accessing the State network.
- (5) Compliance with all rules and regulations of the (Criminal Justice Agency) Policies and CJIS Security Policy in the operation of all information received.

“Responsibility for management of security control shall remain with the criminal justice agency.” CJIS Security Policy Version 5.0, Section 3.2.

This agreement covers the overall supervision of all (Criminal Justice Agency) systems, applications, equipment, systems design, programming, and operational procedures associated with the development, implementation, and maintenance of any (Criminal Justice Agency) system to include NCIC Programs that may be subsequently designed and/or implemented within the (Criminal Justice Agency).

John Smith, CIO
Any State Department of Administration

Date

Joan Brown, CIO
(Criminal Justice Agency)

Date

D-3. Noncriminal Justice Agency Agreement & Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING

BETWEEN

THE FEDERAL BUREAU OF INVESTIGATION

AND

(Insert Name of Requesting Organization)

FOR

THE ESTABLISHMENT AND ACCOMMODATION OF
THIRD-PARTY CONNECTIVITY TO THE
CRIMINAL JUSTICE INFORMATION SERVICES DIVISION'S WIDE AREA NETWORK

1. **PURPOSE:** This Memorandum of Understanding (MOU) between the Federal Bureau of Investigation (FBI) and **(insert requesting organization's name)**, hereinafter referred to as the "parties," memorializes each party's responsibilities with regard to establishing connectivity to records services accessible via the Wide Area Network (WAN) of the FBI's Criminal Justice Information Services (CJIS) Division.

2. **BACKGROUND:** The requesting organization, **(insert requesting organization's name)**, being approved for access to systems of records accessible via the CJIS WAN, desires connectivity to the CJIS WAN or via a secure Virtual Private Network (VPN) Connection (Internet) to the CJIS WAN. The CJIS Division has created a framework for accommodating such requests based on the type of connection.

In preparing for such non-CJIS-funded connectivity to the CJIS WAN, the parties plan to acquire, configure, and place needed communications equipment at suitable sites and to make electronic connections to the appropriate systems of records via the CJIS WAN.

To ensure that there is a clear understanding between the parties regarding their respective roles in this process, this MOU memorializes each party's responsibilities regarding the development, operation, and maintenance of third-party connectivity to the CJIS WAN. Unless otherwise contained in an associated contract, the enclosed terms apply. If there is a conflict between terms and provisions contained in both the contract and this MOU, the contract will prevail.

3. **AUTHORITY:** The FBI is entering into this MOU under the authority provided by Title 28, United States Code (U.S.C.), Section 534; 42 U.S.C. § 14616; and/or Title 28, Code of Federal Regulations, Part 906.

4. **SCOPE:**

a. The CJIS Division agrees to:

i. Provide the requesting organization with a "CJIS WAN Third-Party Connectivity Package" that will detail connectivity requirements and options compatible with the CJIS Division's WAN architecture upon receipt of a signed nondisclosure statement.

ii. Configure the requesting organization's connection termination equipment suite at Clarksburg, West Virginia, and prepare it for deployment or shipment under the CJIS WAN option. In the Secure VPN arrangement only, the third party will develop, configure, manage, and maintain its network connectivity to its preferred service provider.

iii. Work with the requesting organization to install the connection termination equipment suite and verify connectivity.

iv. Perform installation and/or routine maintenance on the requesting organization's third-party dedicated CJIS WAN connection termination equipment after coordinating with the requesting organization's designated point of contact (POC) and during a time when the CJIS Division's technical personnel are near the requesting organization's site.

v. Perform periodic monitoring and troubleshooting of the requesting organization's CJIS WAN connection termination equipment. Software patches will be maintained on the dedicated CJIS WAN connected network equipment only. Under the Secure VPN option, no availability or data thru-put rates will be guaranteed.

vi. Provide 24 hours a day, 7 days a week uninterrupted monitoring from the CJIS Division's Network Operations Center.

vii. Provide information regarding potential hardware end-of-life replacement cycles to the requesting organization for its budgeting purposes.

viii. Maintain third-party dedicated CJIS WAN connection termination equipment as if in the CJIS Division's operational environment.

ix. Update the appropriate software on the requesting organization's dedicated connection termination equipment connected to the CJIS WAN (i.e., Cisco Internetwork Operating System, SafeNet frame relay encryptor firmware, etc.) pursuant to the requesting organization's authorized maintenance contracts.

x. Provide a POC and telephone number for MOU-related issues.

b. The **(insert requesting organization's name)** agrees to:

i. Coordinate requests for third-party connectivity to the CJIS WAN or the Secure VPN with the CJIS Division's POC.

ii. Purchase hardware and software that are compatible with the CJIS WAN.

iii. Pay for the telecommunications infrastructure that supports its connection to the CJIS WAN or Secure VPN.

iv. Maintain telecommunication infrastructure in support of Secure VPN connectivity.

v. Provide any/all hardware and software replacements and upgrades as mutually agreed to by the parties.

vi. Pay for all telecommunication requirements related to its connectivity.

vii. Provide required information for dedicated service relating to Data Link Connection Identifiers, Circuit Identifier, Permanent Virtual Circuit Identifiers,

Local Exchange Carrier Identifier, POC, location, etc., as determined by the parties.

viii. Transport the CJIS WAN connection termination equipment suite to the CJIS Division for configuration and preparation for deployment under the dedicated service option.

ix. Provide registered Internet Protocol information to be used by the requesting organization's system to the CJIS Division.

x. Provide the CJIS Division with six months advance notice or stated amount of time for testing activities (i.e., disaster recovery exercises).

xi. Provide the CJIS Division with applicable equipment maintenance contract numbers and level of service verifications needed to perform software upgrades on connection termination equipment.

xii. Provide the CJIS Division with applicable software upgrade and patch images (or information allowing the CJIS Division to access such images).

xiii. Transport only official, authorized traffic over the Secure VPN.

xiv. Provide a POC and telephone number for MOU-related issues.

5. **FUNDING:** There are no reimbursable expenses associated with this level of support. Each party will fund its own activities unless otherwise agreed to in writing. This MOU is not an obligation or commitment of funds, nor a basis for transfer of funds, but rather is a basic statement of understanding between the parties hereto of the nature of the relationship for the connectivity efforts. Unless otherwise agreed to in writing, each party shall bear its own costs in relation to this MOU. Expenditures by each party will be subject to its budgetary processes and to the availability of funds and resources pursuant to applicable laws, regulations, and policies. The parties expressly acknowledge that the above language in no way implies that Congress will appropriate funds for such expenditures.

6. **SETTLEMENT OF DISPUTES:** Disagreements between the parties arising under or relating to this MOU will be resolved only by consultation between the parties and will not be referred to any other person or entity for settlement.

7. SECURITY: It is the intent of the parties that the actions carried out under this MOU will be conducted at the unclassified level. No classified information will be provided or generated under this MOU.

8. AMENDMENT, TERMINATION, ENTRY INTO FORCE, AND DURATION:

a. All activities of the parties under this MOU will be carried out in accordance with the above-described provisions.

b. This MOU may be amended or terminated by the mutual written consent of the parties' authorized representatives.

c. Either party may terminate this MOU upon 30-days written notification to the other party. Such notice will be the subject of immediate consultation by the parties to decide upon the appropriate course of action. In the event of such termination, the following rules apply:

i. The parties will continue participation, financial or otherwise, up to the effective date of the termination.

ii. Each party will pay the costs it incurs as a result of the termination.

iii. All information and rights therein received under the provisions of this MOU prior to the termination will be retained by the parties, subject to the provisions of this MOU.

9. FORCE AND EFFECT: This MOU, which consists of nine numbered sections, will enter into effect upon signature of the parties and will remain in effect until terminated. The parties should review the contents of this MOU annually to determine whether there is a need for the deletion, addition, or amendment of any provision. This MOU is not intended, and should not be construed, to create any right or benefit, substantive or procedural, enforceable at law or otherwise by any third party against the parties, their parent agencies, the United States, or the officers, employees, agents, or other associated personnel thereof.

The foregoing represents the understandings reached between the parties.

FOR THE FEDERAL BUREAU OF INVESTIGATION

DANIEL D. ROBERTS

Assistant Director

Criminal Justice Information Services Division

Date

FOR THE (insert requesting organization name)

Date

D-4. Interagency Connection Agreement

CRIMINAL JUSTICE INFORMATION SERVICES (CJIS) Wide Area Network (WAN) USER AGREEMENT BY INTERIM REMOTE LATENT USERS

The responsibility of the FBI CJIS Division is to provide state-of-the-art identification and information services to the local, state, federal, and international criminal justice communities, as well as the civil community for licensing and employment purposes. The data provided by the information systems administered and maintained by the FBI CJIS Division are routed to and managed in cooperation with the designated interface agency official. This information includes, but is not limited to, the Interstate Identification Index (III), National Crime Information Center (NCIC), Uniform Crime Reporting (UCR)/National Incident-Based Reporting System (NIBRS), and the Integrated Automated Fingerprint Identification System (IAFIS) programs.

In order to fulfill this responsibility, the FBI CJIS Division provides the following services to its users:

- Operational, technical, and investigative assistance;
- Telecommunications lines to local, state, federal and authorized interfaces;
- Legal and legislative review of matters pertaining to IAFIS, CJIS WAN and other related services;
- Timely information on all aspects of IAFIS, CJIS WAN, and other related programs by means of technical and operational updates, various newsletters, and other relative documents;
- Shared management through the CJIS Advisory Process and the Compact Council;
- Training assistance and up-to-date materials provided to each designated agency official, and;
- Audit.

The concept behind a designated interface agency official is to unify responsibility for system user discipline and ensure adherence to system procedures and policies within each interface agency. These individuals are ultimately responsible for planning necessary hardware, software, funding, training, and the administration of policy and procedures including security and integrity for complete access to CJIS related systems and CJIS WAN related data services by authorized agencies.

The following documents and procedures are incorporated by reference and made part of this agreement:

- *CJIS Security Policy*;
- *Title 28, Code of Federal Regulations, Part 20*;
- Computer Incident Response Capability (CIRC);
- Applicable federal and state laws and regulations.

To ensure continued access as set forth above, the designated interface agency agrees to adhere to all CJIS policies, including, but not limited to, the following:

1. The signatory criminal agency will provide fingerprints for all qualifying arrests either via electronic submission or fingerprint card that meet submission criteria. In addition, the agency will make their records available for interstate exchange for criminal justice and other authorized purposes.
2. The signatory civil agency with legislative authority will provide all qualifying fingerprints via electronic submission or fingerprint card that meet submission criteria.
3. Appropriate and reasonable quality assurance procedures must be in place to ensure that only complete, accurate, and valid information is maintained in the system.
4. Security - Each agency is responsible for appropriate security measures as applicable to physical security of terminals and telecommunications lines; Interim Distributed Imaging System (IDIS) equipment shall remain stand-

alone devices and be used only for authorized purposes; personnel security to meet background screening requirements; technical security to protect against unauthorized use; data security, dissemination, and logging for audit purposes; and actual security of criminal history records. Additionally, each agency must establish an information security structure that provides for an Information Security Officer (ISO) or a security point of contact.

5. Audit - Each agency shall be responsible for complying with the appropriate audit requirements.
6. Training - Each agency shall be responsible for training requirements, including compliance with training mandates.
7. Integrity of the system shall be in accordance with FBI CJIS Division and interface agency policies. Computer incident reporting shall be implemented.

Until states are able to provide remote latent connectivity to their respective latent communities via a state WAN connection, the CJIS Division may provide direct connectivity to IAFIS via a dial-up connection or through the Combined DNA Index System (CODIS) and/or National Integrated Ballistics Information Network (NIBIN) connections. When a state implements a latent management system and is able to provide intrastate connectivity and subsequent forwarding to IAFIS, this agreement may be terminated. Such termination notice will be provided in writing by either the FBI or the state CJIS Systems Agency.

It is the responsibility of the local remote latent user to develop or acquire an IAFIS compatible workstation. These workstations may use the software provided by the FBI or develop their own software, provided it is IAFIS compliant.

The CJIS Division will provide the approved modem and encryptors required for each dial-up connection to IAFIS. The CJIS Communication Technologies Unit will configure and test the encryptors before they are provided to the user. Users requesting remote latent connectivity through an existing CODIS and/or NIBIN connection must receive verification from the FBI that there are a sufficient number of Ethernet ports on the router to accommodate the request.

If at any time search limits are imposed by the CJIS Division, these individual agency connections will be counted toward the total state allotment.

ACKNOWLEDGMENT AND CERTIFICATION

As a CJIS WAN interface agency official serving in the CJIS system, I hereby acknowledge the duties and responsibilities as set out in this agreement. I acknowledge that these duties and responsibilities have been developed and approved by CJIS system users in order to ensure the reliability, confidentiality, completeness, and accuracy of all information contained in or obtained by means of the CJIS system. I further acknowledge that a failure to comply with these duties and responsibilities may subject our agency to various sanctions adopted by the CJIS Advisory Policy Board and approved by the Director of the FBI. These sanctions may include the termination of CJIS service.

As the designated CJIS WAN interface agency official serving in the CJIS system, I hereby certify that I am familiar with the contents of the *Title 28, Code of Federal Regulations, Part 20; CJIS Security Policy; Computer Incident Response Capability;* and applicable federal or state laws and regulations applied to IAFIS and CJIS WAN Programs for the dissemination of criminal history records for criminal and noncriminal justice purposes.

* _____
Signature Print or Type

CJIS WAN Agency Official Date

**CONCURRENCE OF FEDERAL/REGULATORY AGENCY HEAD OR STATE
CJIS SYSTEMS OFFICER (CSO):**

* _____
Signature Print or Type

* _____
Title Date
State CSO

FBI CJIS DIVISION:

Signature - Daniel D. Roberts

Assistant Director _____
Title Date

* If there is a change in the CJIS WAN interface agency official, the FBI Designated Federal Employee must be notified in writing 30 days prior to the change.

5/27/2004 UA modification reflects change in CTO title to CSO.

APPENDIX E SECURITY FORUMS AND ORGANIZATIONAL ENTITIES

Online Security Forums / Organizational Entities
AntiOnline
Black Hat
CIO.com
CSO Online
CyberSpeak Podcast
FBI Criminal Justice Information Services Division (CJIS)
Forrester Security Forum
Forum of Incident Response and Security Teams (FIRST)
Information Security Forum (ISF)
Information Systems Audit and Control Association (ISACA)
Information Systems Security Association (ISSA)
Infosyssec
International Organization for Standardization (ISO)
International Information Systems Security Certification Consortium, Inc. (ISC) ²
Metasploit
Microsoft Developer Network (MSDN) Information Security
National Institute of Standards and Technology (NIST)
Open Web Application Security Project (OWASP)
SANS (SysAdmin, Audit, Network, Security) Institute
SC Magazine
Schneier.com
Security Focus
The Register
US Computer Emergency Response Team (CERT)
US DoJ Computer Crime and Intellectual Property Section (CCIPS)

APPENDIX F IT SECURITY INCIDENT RESPONSE FORM

(Sample Form)

FBI CJIS DIVISION

INFORMATION SECURITY OFFICER (ISO)

COMPUTER SECURITY INCIDENT RESPONSE CAPABILITY (CSIRC)

REPORTING FORM

DATE OF REPORT: _____ (mm/dd/yyyy)

DATE OF INCIDENT: _____ (mm/dd/yyyy)

POINT(S) OF CONTACT: _____ PHONE/EXT/E-MAIL: _____

LOCATION(S) OF INCIDENT: _____

SYSTEM(S) AFFECTED: _____

METHOD OF DETECTION: _____

NATURE OF INCIDENT: _____

INCIDENT DESCRIPTION: _____

ACTIONS TAKEN/RESOLUTION: _____

Copies To:

George White

(FBI CJIS Division ISO)

1000 Custer Hollow Road

Clarksburg, WV 26306-0102

(304) 625-5849

george.white@leo.gov

or

iso@leo.gov

Rob Richter

(FBI CJIS CSIRC POC)

1000 Custer Hollow Road/Module D-2

Clarksburg, WV 26306-0102

(304) 625-5044

john.richter@leo.gov

or

iso@leo.gov

APPENDIX G VIRTUALIZATION

This appendix documents security considerations for implementing and operating virtual environments that process, store, and/or transmit Criminal Justice Information.

The FBI CJIS ISO has fielded several inquiries from various states requesting guidance on implementing virtual environments within their data centers. With the proliferation of virtual environments across industry in general there is a realistic expectation that FBI CJIS Auditors will encounter virtual environments during the upcoming year. Criminal Justice Agencies (CJAs) and Noncriminal Justice Agencies (NCJAs) alike need to understand and appreciate the foundation of security protection measures required for virtual environments.

From Microsoft's Introduction to Windows Server 2008

<http://www.microsoft.com/windowsserver2008/en/us/hyperv.aspx>:

“Server virtualization, also known as hardware virtualization, is a hot topic in the IT world because of the potential for serious economic benefits. Server virtualization enables multiple operating systems to run on a single physical machine as virtual machines (VMs). With server virtualization, you can consolidate workloads across multiple underutilized server machines onto a smaller number of machines. Fewer physical machines can lead to reduced costs through lower hardware, energy, and management overhead, plus the creation of a more dynamic IT infrastructure.”

From a trade publication, kernelthread.com

<http://www.kernelthread.com/publications/virtualization/>:

“Virtualization is a framework or methodology of dividing the resources of a computer into multiple execution environments, by applying one or more concepts or technologies such as hardware and software partitioning, time-sharing, partial or complete machine simulation, emulation, quality of service, and many others.”

From an Open Source Software developer

<http://www.kallasoft.com/pc-hardware-virtualization-basics/>:

“Virtualization refers to virtualizing hardware in software, allowing multiple operating systems, or images, to run concurrently on the same hardware. There are two main types of virtualization software:

- *“Type-1 Hypervisor, which runs ‘bare-metal’ (on top of the hardware)*
- *“Type-2 Hypervisor which requires a separate application to run within an operating system*

“Type1 hypervisors usually offer the best in efficiency, while Type-2 hypervisors allow for greater support of hardware that can be provided by the operating system. For the developer, power user, and small business IT professionals, virtualization offers the same basic idea of collapsing multiple physical boxes into one. For instance, a small business can run a web server and an Exchange server without the need for two boxes. Developers and power users can use the ability to contain different development environments without the need to modify their main operating system. Big businesses can also benefit from virtualization by allowing

software maintenance to be run and tested on a separate image on hardware without having to take down the main production system.”

Industry leaders and niche developers are bringing more products to market every day. The following article excerpts, all posted during September 2008, on www.virtualization.com are examples of industry offerings.

“Microsoft and Novell partnered together for joint virtualization solution. Microsoft and Novell are announcing the availability of a joint virtualization solution optimized for customers running mixed-source environments. The joint offering includes SUSE Linux Enterprise Server configured and tested as an optimized guest operating system running on Windows Server 2008 Hyper-V, and is fully supported by both companies’ channel partners. The offering provides customers with the first complete, fully supported and optimized virtualization solution to span Windows and Linux environments.”

“Sun Microsystems today announce the availability of Sun xVM Server software and Sun xVM Ops Center 2.0, key components in its strategy. Sun also announced the addition of comprehensive services and support for Sun xVM Server software and xVM Ops Center 2.0 to its virtualization suite of services. Additionally, Sun launched xVMserver.org, a new open source community, where developers can download the first source code bundle for Sun xVM Server software and contribute to the direction and development of the product.”

“NetEx, specialist in high-speed data transport over TCP, today announced Virtual HyperIP bandwidth optimization solutions for VMware environments that deliver a threefold to tenfold increase in data replication performance. Virtual HyperIP is a software-based Data Transport Optimizer that operates on the VMware ESX server and boost the performance of storage replication applications from vendors such as EMC, NetApp, Symantec, IBM, Data Domain, and FalconStor. Virtual HyperIP mitigates TCP performance issues that are common when moving data over wide-area network (WAN) connections because of bandwidth restrictions, latency due to distance and/or router hop counts, packet loss and network errors. Like the company’s award-winning appliance-based HyperIP, Virtual HyperIP eliminates these issues with an innovative software design developed specifically to accelerate traffic over an IP based network.”

From several sources, particularly:

<http://www.windowsecurity.com/articles/security-virtualization.html>

<http://csrc.nist.gov/publications/drafts/6--=64rev2/draft-sp800-64-Revision2.pdf>

Virtualization provides several benefits:

- Make better use of under-utilized servers by consolidating to fewer machines saving on hardware, environmental costs, management, and administration of the server infrastructure.
- Legacy applications unable to run on newer hardware and/or operating systems can be loaded into a virtual environment – replicating the legacy environment.

- Provides for isolated portions of a server where trusted and untrusted applications can be ran simultaneously – enabling hot standbys for failover.
- Enables existing operating systems to run on shared memory multiprocessors.
- System migration, backup, and recovery are easier and more manageable.

Virtualization also introduces several vulnerabilities:

- Host Dependent.
- If the host machine has a problem then all the VMs could potentially terminate.
- Compromise of the host makes it possible to take down the client servers hosted on the primary host machine.
- If the virtual network is compromised then the client is also compromised.
- Client share and host share can be exploited on both instances. Potentially this can lead to files being copied to the share that fill up the drive.

These vulnerabilities can be mitigated by the following factors:

- Apply “least privilege” technique to reduce the attack surface area of the virtual environment and access to the physical environment.
- Configuration and patch management of the virtual machine and host, i.e. Keep operating systems and application patches up to date on both virtual machines and hosts.
- Install the minimum applications needed on host machines.
- Practice isolation from host and virtual machine.
- Install and keep updated antivirus on virtual machines and the host.
- Segregation of administrative duties for host and versions.
- Audit logging as well as exporting and storing the logs outside the virtual environment.
- Encrypting network traffic between the virtual machine and host IDS and IPS monitoring.
- Firewall each virtual machine from each other and ensure that only allowed protocols will transact.

APPENDIX H SECURITY ADDENDUM

The following pages contain the legal authority, purpose, and genesis of the Criminal Justice Information Services Security Addendum (H2-H4); the Security Addendum itself (H5-H6); and the Security Addendum Certification page (H7).

**FEDERAL BUREAU OF INVESTIGATION
CRIMINAL JUSTICE INFORMATION SERVICES
SECURITY ADDENDUM**

**Legal Authority for and Purpose and Genesis of the
Security Addendum**

Traditionally, law enforcement and other criminal justice agencies have been responsible for the confidentiality of their information. Accordingly, until mid-1999, the Code of Federal Regulations Title 28, Part 20, subpart C, and the National Crime Information Center (NCIC) policy paper approved December 6, 1982, required that the management and exchange of criminal justice information be performed by a criminal justice agency or, in certain circumstances, by a noncriminal justice agency under the management control of a criminal justice agency.

In light of the increasing desire of governmental agencies to contract with private entities to perform administration of criminal justice functions, the FBI sought and obtained approval from the United States Department of Justice (DOJ) to permit such privatization of traditional law enforcement functions under certain controlled circumstances. In the Federal Register of May 10, 1999, the FBI published a Notice of Proposed Rulemaking, announcing as follows:

1. Access to CHRI [Criminal History Record Information] and Related Information, Subject to Appropriate Controls, by a Private Contractor Pursuant to a Specific Agreement with an Authorized Governmental Agency To Perform an Administration of Criminal Justice Function (Privatization). Section 534 of title 28 of the United States Code authorizes the Attorney General to exchange identification, criminal identification, crime, and other records for the official use of authorized officials of the federal government, the states, cities, and penal and other institutions. This statute also provides, however, that such exchanges are subject to cancellation if dissemination is made outside the receiving departments or related agencies. Agencies authorized access to CHRI traditionally have been hesitant to disclose that information, even in furtherance of authorized criminal justice functions, to anyone other than actual agency employees lest such disclosure be viewed as unauthorized. In recent years, however, governmental agencies seeking greater efficiency and economy have become increasingly interested in obtaining support services for the administration of criminal justice from the private sector. With the concurrence of the FBI's Criminal Justice Information Services (CJIS) Advisory Policy Board, the DOJ has concluded that disclosures to private persons and entities providing support services for criminal justice agencies may, when subject to appropriate controls, properly be viewed as permissible disclosures for purposes of compliance with 28 U.S.C. 534.

We are therefore proposing to revise 28 CFR 20.33(a)(7) to provide express authority for such arrangements. The proposed authority is similar to the authority that already exists in 28 CFR 20.21(b)(3) for state and local CHRI systems. Provision of CHRI under this authority would only be permitted pursuant to a specific agreement with an authorized governmental

agency for the purpose of providing services for the administration of criminal justice. The agreement would be required to incorporate a security addendum approved by the Director of the FBI (acting for the Attorney General). The security addendum would specifically authorize access to CHRI, limit the use of the information to the specific purposes for which it is being provided, ensure the security and confidentiality of the information consistent with applicable laws and regulations, provide for sanctions, and contain such other provisions as the Director of the FBI (acting for the Attorney General) may require. The security addendum, buttressed by ongoing audit programs of both the FBI and the sponsoring governmental agency, will provide an appropriate balance between the benefits of privatization, protection of individual privacy interests, and preservation of the security of the FBI's CHRI systems.

The FBI will develop a security addendum to be made available to interested governmental agencies. We anticipate that the security addendum will include physical and personnel security constraints historically required by NCIC security practices and other programmatic requirements, together with personal integrity and electronic security provisions comparable to those in NCIC User Agreements between the FBI and criminal justice agencies, and in existing Management Control Agreements between criminal justice agencies and noncriminal justice governmental entities. The security addendum will make clear that access to CHRI will be limited to those officers and employees of the private contractor or its subcontractor who require the information to properly perform services for the sponsoring governmental agency, and that the service provider may not access, modify, use, or disseminate such information for inconsistent or unauthorized purposes.

Consistent with such intent, Title 28 of the Code of Federal Regulations (C.F.R.) was amended to read:

§ 20.33 Dissemination of criminal history record information.

- a) Criminal history record information contained in the Interstate Identification Index (III) System and the Fingerprint Identification Records System (FIRS) may be made available:
 - 1) To criminal justice agencies for criminal justice purposes, which purposes include the screening of employees or applicants for employment hired by criminal justice agencies.
 - 2) To noncriminal justice governmental agencies performing criminal justice dispatching functions or data processing/information services for criminal justice agencies; and
 - 3) To private contractors pursuant to a specific agreement with an agency identified in paragraphs (a)(1) or (a)(6) of this section and for the purpose of providing services for the administration of criminal justice pursuant to that agreement. The agreement must incorporate a security addendum approved by the Attorney General of the United

States, which shall specifically authorize access to criminal history record information, limit the use of the information to the purposes for which it is provided, ensure the security and confidentiality of the information consistent with these regulations, provide for sanctions, and contain such other provisions as the Attorney General may require. The power and authority of the Attorney General hereunder shall be exercised by the FBI Director (or the Director's designee).

This Security Addendum, appended to and incorporated by reference in a government-private sector contract entered into for such purpose, is intended to insure that the benefits of privatization are not attained with any accompanying degradation in the security of the national system of criminal records accessed by the contracting private party. This Security Addendum addresses both concerns for personal integrity and electronic security which have been addressed in previously executed user agreements and management control agreements.

A government agency may privatize functions traditionally performed by criminal justice agencies (or noncriminal justice agencies acting under a management control agreement), subject to the terms of this Security Addendum. If privatized, access by a private contractor's personnel to NCIC data and other CJIS information is restricted to only that necessary to perform the privatized tasks consistent with the government agency's function and the focus of the contract. If privatized the contractor may not access, modify, use or disseminate such data in any manner not expressly authorized by the government agency in consultation with the FBI.

FEDERAL BUREAU OF INVESTIGATION
CRIMINAL JUSTICE INFORMATION SERVICES
SECURITY ADDENDUM

The goal of this document is to augment the CJIS Security Policy to ensure adequate security is provided for criminal justice systems while (1) under the control or management of a private entity or (2) connectivity to FBI CJIS Systems has been provided to a private entity (contractor). Adequate security is defined in Office of Management and Budget Circular A-130 as “security commensurate with the risk and magnitude of harm resulting from the loss, misuse, or unauthorized access to or modification of information.”

The intent of this Security Addendum is to require that the Contractor maintain a security program consistent with federal and state laws, regulations, and standards (including the CJIS Security Policy in effect when the contract is executed), as well as with policies and standards established by the Criminal Justice Information Services (CJIS) Advisory Policy Board (APB).

This Security Addendum identifies the duties and responsibilities with respect to the installation and maintenance of adequate internal controls within the contractual relationship so that the security and integrity of the FBI's information resources are not compromised. The security program shall include consideration of personnel security, site security, system security, and data security, and technical security.

The provisions of this Security Addendum apply to all personnel, systems, networks and support facilities supporting and/or acting on behalf of the government agency.

1.00 Definitions

1.01 Contracting Government Agency (CGA) - the government agency, whether a Criminal Justice Agency or a Noncriminal Justice Agency, which enters into an agreement with a private contractor subject to this Security Addendum.

1.02 Contractor - a private business, organization or individual which has entered into an agreement for the administration of criminal justice with a Criminal Justice Agency or a Noncriminal Justice Agency.

2.00 Responsibilities of the Contracting Government Agency.

2.01 The CGA will ensure that each Contractor employee receives a copy of the Security Addendum and the CJIS Security Policy and executes an acknowledgment of such receipt and the contents of the Security Addendum. The signed acknowledgments shall remain in the possession of the CGA and available for audit purposes.

3.00 Responsibilities of the Contractor.

3.01 The Contractor will maintain a security program consistent with federal and state laws, regulations, and standards (including the CJIS Security Policy in effect when the contract is executed), as well as with policies and standards established by the Criminal Justice Information Services (CJIS) Advisory Policy Board (APB).

4.00 Security Violations.

4.01 The CGA must report security violations to the CJIS Systems Officer (CSO) and the Director, FBI, along with indications of actions taken by the CGA and Contractor.

- 4.02 Security violations can justify termination of the appended agreement.
- 4.03 Upon notification, the FBI reserves the right to:
- a. Investigate or decline to investigate any report of unauthorized use;
 - b. Suspend or terminate access and services, including telecommunications links. The FBI will provide the CSO with timely written notice of the suspension. Access and services will be reinstated only after satisfactory assurances have been provided to the FBI by the CJA and Contractor. Upon termination, the Contractor's records containing CHRI must be deleted or returned to the CGA.
- 5.00 Audit
- 5.01 The FBI is authorized to perform a final audit of the Contractor's systems after termination of the Security Addendum.
- 6.00 Scope and Authority
- 6.01 This Security Addendum does not confer, grant, or authorize any rights, privileges, or obligations on any persons other than the Contractor, CGA, CJA (where applicable), CSA, and FBI.
- 6.02 The following documents are incorporated by reference and made part of this agreement: (1) the Security Addendum; (2) the NCIC 2000 Operating Manual; (3) the CJIS Security Policy; and (4) Title 28, Code of Federal Regulations, Part 20. The parties are also subject to applicable federal and state laws and regulations.
- 6.03 The terms set forth in this document do not constitute the sole understanding by and between the parties hereto; rather they augment the provisions of the CJIS Security Policy to provide a minimum basis for the security of the system and contained information and it is understood that there may be terms and conditions of the appended Agreement which impose more stringent requirements upon the Contractor.
- 6.04 This Security Addendum may only be modified by the FBI, and may not be modified by the parties to the appended Agreement without the consent of the FBI.
- 6.05 All notices and correspondence shall be forwarded by First Class mail to:

Assistant Director
Criminal Justice Information Services Division, FBI
1000 Custer Hollow Road
Clarksburg, West Virginia 26306

**FEDERAL BUREAU OF INVESTIGATION
CRIMINAL JUSTICE INFORMATION SERVICES
SECURITY ADDENDUM**

CERTIFICATION

I hereby certify that I am familiar with the contents of (1) the Security Addendum, including its legal authority and purpose; (2) the NCIC 2000 Operating Manual; (3) the CJIS Security Policy; and (4) Title 28, Code of Federal Regulations, Part 20, and agree to be bound by their provisions.

I recognize that criminal history record information and related data, by its very nature, is sensitive and has potential for great harm if misused. I acknowledge that access to criminal history record information and related data is therefore limited to the purpose(s) for which a government agency has entered into the contract incorporating this Security Addendum. I understand that misuse of the system by, among other things: accessing it without authorization; accessing it by exceeding authorization; accessing it for an improper purpose; using, disseminating or re-disseminating information received as a result of this contract for a purpose other than that envisioned by the contract, may subject me to administrative and criminal penalties. I understand that accessing the system for an appropriate purpose and then using, disseminating or re-disseminating the information received for another purpose other than execution of the contract also constitutes misuse. I further understand that the occurrence of misuse does not depend upon whether or not I receive additional compensation for such authorized activity. Such exposure for misuse includes, but is not limited to, suspension or loss of employment and prosecution for state and federal crimes.

Printed Name/Signature of Contractor Employee

Date

Printed Name/Signature of Contractor Representative

Date

Organization and Title of Contractor Representative

APPENDIX I REFERENCES

White House Memo entitled “Designation and Sharing of Controlled Unclassified Information (CUI), May 9, 2008

[CJIS RA] *CJIS Security Policy Risk Assessment Report*; August 2008; For Official Use Only; Prepared by: Noblis; Prepared for: U.S. Department of Justice, Federal Bureau of Investigation, Criminal Justice Information Services Division, 1000 Custer Hollow Road, Clarksburg, WV 26306

[FBI SA 8/2006] *Federal Bureau of Investigation, Criminal Justice Information Services, Security Addendum*; 8/2006; Assistant Director, Criminal Justice Information Services, FBI, 1000 Custer Hollow Road, Clarksburg, West Virginia 26306

[FISMA] *Federal Information Security Management Act of 2002*; House of Representatives Bill 2458, Title III–Information Security

[FIPS 199] *Standards for Security Categorization of Federal Information and Information Systems*; Federal Information Processing Standards Publication, FIPS PUB 199; February 2004

[FIPS 200] *Minimum Security Requirements for Federal Information and Information Systems*; Federal Information Processing Standards Publication, FIPS PUB 200; March 2006

[FIPS 201] *Personal Identity Verification for Federal Employees and Contractors*; Federal Information Processing Standards Publication, FIPS PUB 201-1

[NIST SP 800–14] *Generally Accepted Principles and Practices for Securing Information Technology Systems*; NIST Special Publication 800–14

[NIST SP 800–25] *Federal Agency Use of Public Key Technology for Digital Signatures and Authentication*; NIST Special Publication 800–25

[NIST SP 800–30] *Risk Management Guide for Information Technology Systems*; NIST Special Publication 800–36

[NIST SP 800–32] *Introduction to Public Key Technology and the Federal PKI Infrastructure*; NIST Special Publication 800–32

[NIST SP 800–34] *Contingency Planning Guide for Information Technology Systems*; NIST Special Publication 800–34

[NIST SP 800–35] *Guide to Information Technology Security Services*; NIST Special Publication 800–35

[NIST SP 800–36] *Guide to Selecting Information Technology Security Products*; NIST Special Publication 800–36

[NIST SP 800–39] *Managing Risk from Information Systems, An Organizational Perspective*; NIST Special Publication 800–39

[NIST SP 800–40] *Procedures for Handling Security Patches*; NIST Special Publication 800–40

[NIST SP 800–44] *Guidelines on Securing Public Web Servers*; NIST Special Publication 800–44

- [NIST SP 800–45] *Guidelines on Electronic Mail Security*; NIST Special Publication 800–45, Version 2
- [NIST SP 800–46] *Security for Telecommuting and Broadband Communications*; NIST Special Publication 800–46
- [NIST SP 800–48] *Wireless Network Security: 802.11, Bluetooth, and Handheld Devices*; NIST Special Publication 800–48
- [NIST SP 800–52] *Guidelines on the Selection and Use of Transport Layer Security*; NIST Special Publication 800–52
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APPENDIX J NONCRIMINAL JUSTICE AGENCY SUPPLEMENTAL GUIDANCE

This supplemental guidance for noncriminal justice agencies (NCJA) is provided specifically for those whose only access to FBI CJIS data is authorized by legislative enactment or federal executive order to request civil fingerprint-based background checks for licensing, employment, or other noncriminal justice purposes, via their State Identification Bureau and/or Channeling agency. This guidance does not apply to criminal justice agencies covered under an active user agreement with the FBI CJIS Division for direct connectivity to the FBI CJIS Division via the FBI CJIS Wide Area Network. Examples of the target audience for this supplemental guidance include school boards, banks, medical boards, gaming commissions, alcohol and tobacco control boards, social services agencies, pharmacy boards, etc. The information below identifies the sections of the CJIS Security Policy most closely related to the NCJA's limited scope of interaction with CJI.

1. The following CJIS Security Policy sections comprise the minimum standard requirements in all situations:
 - a. 3.2.9 – Local Agency Security Officer (LASO)
 - b. 5.1.1.6 – Agency User Agreements
 - c. 5.1.1.7 – Security and Management Control Outsourcing Standard*
 - d. 5.1.3 – Secondary Dissemination
 - e. 5.2.1.1 – Security Awareness Training
 - f. 5.3 – Incident Response
 - g. 5.4.6 – Audit Record Retention
 - h. 5.8 – Media Protection
 - i. 5.9.2 – Controlled Area
 - j. 5.11 – Formal Audits **
 - k. 5.12 – Personnel Security***

* Note: Outsourcing Standard applies when contracting with channeling or outsourcing agency.

**Note: States shall periodically conduct audits of NCJAs. The FBI CJIS Division shall triennially conduct audits of a sampling of NCJAs.

*** Note: See the National Crime Prevention and Privacy Compact Council's Outsourcing Standard for Contractor background check requirements.

2. Agencies located within states having passed legislation authorizing or requiring civil fingerprint-based background checks for personnel with access to criminal history record information for the purposes of licensing or employment shall follow the guidance in section 5.12. Agencies located within states without this authorization or

requirement are exempted from the fingerprint-based background check requirement until such time as appropriate legislation has been written into law.

3. When receiving CJI via encrypted e-mail or downloading from a web-site and subsequently storing the information as an encrypted electronic image Authorized Recipients should, in addition to all of the aforementioned sections, focus on compliance with policy sections:
 - a. 5.5.2.4 – Access Control – Encryption
 - b. 5.6 – Identification and Authentication (web-site access)
 - c. 5.10.1.2 – System and Communications Protection – Encryption

4. When receiving CJI via e-mail or retrieving CJI from a website and subsequently storing the CJI electronically, Authorized Recipients should, in addition to 1.a–1.k above, focus on compliance with policy sections:
 - a. 5.5.2.4 – Access Control – Encryption
 - b. 5.6 – Identification and Authentication
 - c. 5.7 – Configuration Management
 - d. 5.10 – System and Communications Protection and Information Integrity

5. If an NCJA further disseminates CJI via encrypted e-mail to Authorized Recipients, located outside the NCJA’s designated controlled area, the NCJA should, in addition to 1.a–3.c above, focus on compliance with policy sections:
 - a. 5.7 – Configuration Management
 - b. 5.10 – System and Communications Protection and Information Integrity

6. If an NCJA further disseminates CJI via secure website posting to Authorized Recipients, located outside the NCJA’s designated controlled area, the NCJA should focus on all sections outlined in 1.a-4.d above.

APPENDIX K CRIMINAL JUSTICE AGENCY SUPPLEMENTAL GUIDANCE

This supplemental guidance is directed toward those criminal justice agencies that have historically not been subject to audit under the CJIS Security Policy guidelines. The target audience typically gains access to CJIS via fax, hardcopy distribution or voice calls; does not have the capability to query state or national databases for criminal justice information; and, may have been assigned an originating agency identifier (ORI) but is dependent on other agencies to run queries on their behalf. This guidance does not apply to criminal justice agencies covered under an active information exchange agreement with another agency for direct or indirect connectivity to the state CSA – in other words those agencies traditionally identified as “terminal agencies”. The information below identifies the sections of the CJIS Security Policy the target audience will most often encounter:

1. The following CJIS Security Policy sections comprise the minimum standard requirements in all situations:
 - a. 3.2.9 – Local Agency Security Officer (LASO)
 - b. 5.1.1.3 – Criminal Justice Agency User Agreements
 - c. 5.1.3 – Secondary Dissemination
 - d. 5.2.1.1 – Security Awareness Training
 - e. 5.3 – Incident Response
 - f. 5.4.6 – Audit Record Retention
 - g. 5.8 – Media Protection
 - h. 5.9 – Physical Security
 - i. 5.10.2 – Facsimile Transmission of CJIS
 - j. 5.11 – Formal Audits*
 - k. 5.12 – Personnel Security

*Note: States shall triennially audit all CJAs

2. When receiving CJIS via encrypted e-mail or downloading from a web-site and subsequently storing the information as an encrypted electronic image Authorized Recipients should, in addition to all of the aforementioned sections, focus on complying with policy sections:
 - a. 5.5.2.4 – Access Control – Encryption
 - b. 5.6 – Identification and Authentication
 - c. 5.10.1.2 – System and Communications Protection – Encryption

3. When receiving CJI via e-mail or retrieving CJI from a website and subsequently storing the CJI electronically, Authorized Recipients should, in addition to 1.a–1.k above, focus on complying with policy sections:
 - a. 5.5.2.4 – Access Control – Encryption
 - b. 5.6 – Identification and Authentication
 - c. 5.7 – Configuration Management
 - d. 5.10 – System and Communications Protection and Information Integrity