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CJIS SECURITY POLICY

2024 UTAH TAC CONFERENCE SEPTEMBER 10, 2024

AGENDA

- CJIS Security Policy Modernization Update
- Why the CJIS Security Policy
- CJISSECPOL Priorities & Implementation
- Multi-Factor Authentication (MFA)
- FBI CJIS ISO Resources







CJISSECPOL MODERNIZATION UPDATE

NIST Special Publication 800-53

Revision 5

Security and Privacy Controls for Information Systems and Organizations

JOINT TASK FORCE

This publication is available free of charge from: https://doi.org/10.6028/NIST.SP.800-53r5

CJISSECPOL MODERNIZATION UPDATE

NIST SP800-53r5 Control Families (18 total)

- Access Control (AC)
- Awareness and Training (AT)
- Audit and Accountability (AU)
- Assessment, Authorization, and Monitoring (CA)
- Configuration Management (CM)
- Contingency Planning (CP)
- **b** Identification and Authentication (IA)
- Incident Response (IR)
- Maintenance (MA)

- Media Protection (MP)
- Physical and Environmental (PE)
- Planning (PL)
- Personnel Security (PS)
- Risk Assessment (RA)
- System and Services Acquisition (SA)
- System and Communications Protection (SC)
- System and Information Integrity (SI)
- Supply Chain Risk Management (SF

CJISSECPOL MODERNIZATION UPDATE

CJIS Security Policy Roadmap







WHY THE CJISSECPOL?



OVERVIEW OF CJIS SECURITY POLICY

Applies to everyone dealing with Criminal Justice Information (CJI)

• FBI/CJIS provided information

Shared Management Philosophy

• "The FBI said so..."

Information Security Requirements

• Minimum set...but required for connectivity

Guidelines and Agreements





Malware, 8, 17% 🔶

RECENT REPORTED INCIDENTS – CY24-Q1

| Event Type | Other Info | Related Controls |
|-------------------------|--|-------------------------|
| Malware | Trojan Horse was discovered | SI-2; SI-3; SI-4; SC-7 |
| Data Loss/Misuse | PC with CJI was discarded of improperly | MP-1; MP-5; MP-6; PE-16 |
| Data Loss/Misuse | CJI was deleted by mistake and unrecoverable | MP-4; CP-9; CP-10 |
| Ransomware | CAD/RMS system hit with Ransomware | SI-2; SI-3; SI-4; SC-7 |
| Phishing | User clicked phishing email | AT-2; AT-3 |
| Malware | CAD/RMS system was bit with malware and it spread to other systems causing an outage | SI-2; SI-3; SI-4; SC-7 |
| Data Loss/Misuse | CJI left unattended | AT-2; AT-3; PE-3; MA-2 |
| Data Loss/Misuse | Leaked information through email | AT-2; AT-3; SC-8; SC-13 |
| Credential Compromise | User shared her account with access to CJI | AT-2; AT-3; AC-2 |
| Malware | VPN suspected of containing malicious code | SI-2; SI-3; SI-4; SC-7 |
| Malware | Domain Controller, GIS, and VOIP systems all affected by malware | SI-2; SI-3; SI-4; SC-7 |
| Unauthorized Access | Somone was able to use a vulnerability to login to a system and start looking for data | SI-2; SI-3; SI-4; SC-7 |
| Malware | Suspected Malware after port scans were being run on the network internally | SI-2; SI-3; SI-4; SC-7 |
| Credential Compromise | Credentials with access to CJI were found online | AT-2; AT-3; IA-2 |
| Unauthorized Disclosure | CJI was sent to someone who was not vetted properly | AT-2; AT-3 |
| Data Loss/Misuse | Employee misused CJI data | AT-2; AT-3 |
| Credential Compromise | Brute Force password attempts were being made | AC-7; IA-2 |
| | Personnel obtained access to master key and was able to be in areas of CJI they were not supposed to | |
| Unauthorized Access | be | PE-2; PE-3; PE-6 |

RECENT REPORTED INCIDENTS – CY24-Q2

| Event Type | Other Info | Related Controls |
|-------------------------|--|------------------------------------|
| Miscellaneous | Vulnerability discovered by external entity | SI-2; SI-4; RA-5; RA-7 |
| Ransomware | Files were encrypted and held ransome | AT-2; AT-3; SI-2; SI-3; SI-4; SC-7 |
| Malware | Domain Controller attacked | SI-2; SI-3; SI-4; SC-7 |
| Credential Compromise | Users credentials were compromised | IA-2 |
| Malware | VPN's hit with Zero-Day vulnerability | RA-5; SI-2; SI-3; SI-4; SC-7 |
| Ransomware | Printers on their network were creating printouts letting them know their data had been stolen | AT-2; AT-3; SI-2; SI-3; SI-4; SC-7 |
| Credential Compromise | Users account was compromised | IA-2 |
| Unauthorized Disclosure | User provided CJI information to a person who had not yet been vetted properly. | AT-2; AT-3; AC-21 |
| Unauthorized Access | Maintenance personnel were allowed into a room unescorted with CJI | MA-2; MA-5; PE-3; PE-8; PE-16 |
| Malware | User downloaded malicious software | SI-2; SI-3; SI-4; SC-7 |
| Credential Compromise | Credentials were compromised and accounts were access to view CJI | IA-2 |
| Credential Compromise | Compromised VPN credentials led to Ransomware | IA-2 |
| Unauthorized Access | Unauthorized maintenance personnel gained access to protected areas of CJI | MA-2; MA-5; PE-3; PE-8; PE-16 |
| Unauthorized Disclosure | CHRI results were returned to the wrong agency | AT-2; AT-3 |
| Data Loss/Misuse | PC with CJI was discarded of improperly | MP-1; MP-5; MP-6; PE-16 |
| Unauthorized Disclosure | CJI Transmitted unencrypted | SC-8; SC-13 |
| Ransomware | Brute force password attack leading to attempted ransomware | AC-7; IA-2 |
| Phishing | Phishing attempt | AT-2; AT-3 |
| Phishing | Phishing attempt | AT-2; AT-3 |
| Phishing | Phishing attempt | AT-2; AT-3 |
| Data Loss/Misuse | Laptop was stolen with CJI | PE-17 |
| Ransomware | Ransomware attack on the Tribal Government Network | SI-2; SI-3; SI-4; SC-7 |
| Unauthorized Disclosure | CJI was posted to Facebook | AT-2; AT-3; PL-4 |

RECENT REPORTED INCIDENTS – CY24-Q3

| Event Type | Other Info | Related Controls |
|-----------------------|-----------------------------|------------------|
| Credential Compromise | VPN Credentials compromised | IA-2 |
| Data Loss/Misuse | Laptop was stolen with CJI | PE-17 |
| Credential Compromise | Email was compromised | IA-2 |
| Credential Compromise | Email was compromised | IA-2 |
| Credential Compromise | Email was compromised | IA-2 |

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CJIS SECURITY POLICY PRIORITIES & IMPLEMENTATION



- The Process:
 - Three-step solution:
 - Identify a subset of controls for immediate implementation to significantly reduce risk
 - Allow a zero-cycle audit for remaining controls
 - Create priority tiering matrix to assist in implementation during the zero-cycle audit

- The Process:
 - Step 1: Controls for immediate implementation
 - Priority Code 1 [P1] controls identified by cross-mapping the NIST 800-53r5.1 "moderate baseline" security controls to MITRE ATT&CK® data
 - Cross-mapping paired the number of attacks with each associated individual control
 - EXAMPLE: MITRE listed 332 attacks associated with SI-4 Information System Monitoring.
 - An average risk score was developed by dividing the total attacks by the total number of affected moderate controls 4,367
 - Results in 73 controls and control enhancements scoring above the average

- The Process:
 - Step 2: Allow a zero-cycle audit for remaining controls
 - Zero-cycle audit for all modernized controls which are not existing (i.e., part of v5.9) and not identified as being [P1]
 - Roughly 56% of all controls
 - Auditable and sanctionable after the zero-cycle audit period has ended
 - Zero-cycle timeframe 1 OCT 2024 30 SEP 2027

- The Process:
 - Step 3: Create priority tiering matrix to assist in implementation during the zero-cycle audit
 - Remaining non-[P1] controls assigned additional prioritization codes:
 - Priority Code 2 [P2]
 - Priority Code 3 [P3]
 - Priority Code 4 [P4]
 - Priorities assist in making sequencing decisions for implementation
 - Priority Code 2 [P2] implemented after [P1] and before [P3] & [P4]
 - Priority Code 3 [P3] implemented after [P2] and before [P4]
 - Priority Code 4 [P4] implemented after [P3]
 - Ensures implementation is accomplished in a manner of dependency
 - Implementation does not imply any defined level of risk mitigation until all controls have been implemented.

• Markings (from CJISSECPOL Section 1.4):

Effective in version 5.9.5, priority and implementation markings have been added to the modernized controls. Based on the FBI Director approved APB recommendation, beginning October 1, 2024, requirements existing prior to the CJISSECPOL modernization (i.e., version 5.9) and those identified as Priority 1 ([Priority 1]) will be the set of sanctionable requirements.

- Non-modernized sections do not have markings but are considered "existing" requirements and continue to be auditable and sanctionable.
- "Existing" modernized requirements and indicated by the [Existing] marking.
- Priority 1 modernized requirements are indicated by the [Priority 1] marking.

• All [Priority 2], [Priority 3], and [Priority 4] modernized requirements fall into a zero-cycle status. The zero-cycle begins October 1, 2024 and ends September 30, 2027.

Requirements Companion Document (RCD)



• Priority 1 [P1] Controls (22):

| No. | Control Name | Enhancements | Priority |
|-------|--|-------------------------------|----------|
| AC-2 | ACCOUNT MANAGEMENT | AC-2 (1) (2) (3) (4) (5) (13) | P1 |
| AC-3 | ACCESS ENFORCEMENT | AC-3 (14) | P1 |
| AC-4 | INFORMATION FLOW ENFORCEMENT | AC-4 | P1 |
| AC-5 | SEPARATION OF DUTIES | AC-5 | P1 |
| AC-6 | LEAST PRIVILEGE | AC-6 (1) (2) (5) (7) (9) (10) | P1 |
| AC-17 | REMOTE ACCESS | AC-17 (1) (2) (3) (4) | P1 |
| AC-20 | USE OF EXTERNAL SYSTEMS | AC-20 (1) (2) | P1 |
| CA-7 | CONTINUOUS MONITORING | CA-7 (1) (4) | P1 |
| CM-2 | BASELINE CONFIGURATION | CM-2 (2) (3) (7) | P1 |
| CM-5 | ACCESS RESTRICTIONS FOR CHANGE | CM-5 | P1 |
| CM-6 | CONFIGURATION SETTINGS | СМ-6 | P1 |
| CM-7 | LEAST FUNCTIONALITY | CM-7 (1) (2) (5) | P1 |
| CM-8 | SYSTEM COMPONENT INVENTORY | CM-8 (1) (3) | P1 |
| IA-2 | IDENTIFICATION AND AUTHENTICATION (ORGANIZATIONAL USERS) | IA-2 (1) (2) (8) (12) | P1 |
| IA-5 | AUTHENTICATOR MANAGEMENT | IA-5 (1) (2) (6) | P1 |
| RA-5 | VULNERABILITY MONITORING AND SCANNING | RA-5 (2) (5) (11) | P1 |
| SC-7 | BOUNDARY PROTECTION | SC-7 (3) (4) (5) (7) (8) (24) | P1 |
| SI-2 | FLAW REMEDIATION | SI-2 (2) | P1 |
| SI-3 | MALICIOUS CODE PROTECTION | SI-3 | P1 |
| SI-4 | SYSTEM MONITORING | SI-4 (2) (4) (5) | P1 |
| SI-7 | SOFTWARE, FIRMWARE, AND INFORMATION INTEGRITY | SI-7 (1) (7) | P1 |
| SI-10 | INFORMATION INPUT VALIDATION | SI-10 | P1 |

- Remaining Controls:
 - Priority Two, Three and Four controls
 - Implemented during "Zero Cycle" period
 - Noncompliance noted, but not sanctioned by CJIS APB
 - Must be implemented by October 1, 2027

• Priority 2 [P2] Controls (107):

| F 1 . | F 1 . | - I . | F 1 . | F 1 . |
|---------------|-------------------|--------------|-----------------------|---------------|
| Enhancements | Enhancements | Enhancements | Enhancements | Enhancements |
| AC-1 | CM-9 | MA-1 | PS-1 | SC-5 |
| AC-8 | CM-11 | MP-1 | PS-2 | SC-8 (1) |
| AC-18 (1) (3) | CM-12 (1) | MP-2 | PS-3 | SC-12 |
| AC-19 (5) | CP-1 | MP-4 | PS-4 | SC-13 |
| AT-1 | CP-2 (1) (3) (8) | MP-5 | PS-7 | SC-15 |
| AT-2 (2) (3) | CP-6 (1) (3) | MP-6 | RA-1 | SC-17 |
| AT-3 | CP-7 (1) (2) (3) | MP-7 | RA-2 | SC-20 |
| AT-3 (5) | CP-8 (1) (2) | PE-1 | RA-3 (1) | SC-21 |
| AU-1 | CP-9 (1) (8) | PE-2 | RA-7 | SC-22 |
| AU-2 | CP-10 (2) | PE-3 | RA-9 | SC-23 |
| AU-3 (1) | IA-1 | PE-4 | SA-1 | SC-28 (1) |
| AU-3 (3) | IA-3 | PE-6 (1) | SA-2 | SC-39 |
| AU-4 | IA-4 (4) | PE-9 | SA-3 | SI-1 |
| AU-5 | IA-7 | PE-10 | SA-4 (1) (2) (9) (10) | SI-5 |
| AU-6 (1) (3) | IA-8 (1) (2) (4) | PE-11 | SA-8 (33) | SI-16 |
| AU-8 | IA-11 | PE-12 | SA-9 (2) | SR-1 |
| AU-9 (4) | IA-12 (2) (3) (5) | PE-13 (1) | SA-10 | SR-5 |
| AU-12 | IR-1 | PE-14 | SA-11 | SR-6 |
| CA-1 | IR-4 (1) | PE-15 | SA-22 | SR-11 (1) (2) |
| CA-3 | IR-5 | PL-1 | SC-1 | |
| CM-1 | IR-6 (1) (3) | PL-2 | SC-2 | |
| CM-3 (2) (4) | IR-8 (1) | PL-8 | SC-4 | |

• Priority 3 [P3] Controls (40):

| Enhancements | Enhancements |
|--------------|-------------------|
| AC-7 | PE-16 |
| AC-12 | PE-17 |
| AC-21 | PL-4 (1) |
| AU-7 (1) | PL-10 |
| CA-2 (1) | PL-11 |
| CA-6 | PS-5 |
| CA-9 | SA-5 |
| CM-4 (2) | SA-15 (3) |
| CM-10 | SC-10 |
| CP-3 | SC-18 |
| CP-4 (1) | SI-8 (2) |
| IA-6 | SI-11 |
| IR-2 | SI-12 (1) (2) (3) |
| IR-2 (3) | SR-2 (1) |
| IR-3 (2) | SR-3 |
| IR-7 (1) | SR-8 |
| MA-2 | SR-10 |
| MA-4 | SR-12 |
| MA-5 | |
| MA-6 | |
| MP-3 | |
| DE 5 | |

• Priority 4 [P4] Controls (14):

| Enhancements |
|------------------|
| AC-11 (1) |
| AC-14 |
| AC-22 |
| AT-4 |
| AU-11 |
| CA-5 |
| MA-3 (1) (2) (3) |
| PE-8 (3) |
| PL-9 |
| PS-6 |
| PS-8 |
| PS-9 |
| SI-18 (4) |
| SI-19 |



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MULTI-FACTOR AUTHENTICATION (MFA)



• IA-2: IA (ORGANIZATIONAL USERS)

• Uniquely identify and authenticate organizational users and associate that unique identification with processes acting on behalf of those users.

• IA-2(1): Implement multi-factor authentication for access to privileged accounts.

 IA-2(2): Implement multi-factor authentication for access to non-privileged accounts.



• IA-5: AUTHENTICATOR MANAGEMENT

- Authentication Assurance Level (AAL) 2
 - CJI = MODERATE
- Authentication SHALL occur by the use of either a multi-factor authenticator or a combination of two single-factor authenticators
 - *Unless multi-factor authenticator; use Memorized Secret plus...
 - *Biometrics SHALL be used only as part of multi-factor authentication with a physical authenticator (something you have).
 - *Device unlock is NOT a factor of authentication



• IA-5: AUTHENTICATOR MANAGEMENT | AUTHENTICATOR TYPES

- Authenticator Types
 - Memorized Secret (PW/PIN)
 - Look Up Secrets
 - Out of Band
 - One Time Passcode
 - Cryptographic Authenticators
 - Software based
 - Hardware based



• IA-5: AUTHENTICATOR MANAGEMENT cont'd

KEY THING TO REMEMBER:

REQUIREMENTS IN IA-5(1) 'a' THRU 'J' AND ONLY THE **ONES FOR THE AUTHENTICATOR(S) YOU** HAVE IMPLEMENTED ARE **REQUIRED TO BE MET**





MFA USE CASES







MFA USE CASE #3: ALL MDT USERS, ACCESS ALL RESOURCES





FBI CJIS ISO RESOURCES



CJIS ISO Program

- Steward the CJIS Security Policy for the Advisory Policy Board
 - Draft and present topic papers at the APB meetings
- Provide Policy support to state ISOs and CSOs
 - Policy Clarification
 - Solution technical analysis for compliance with the Policy
 - Operate a public facing web site on FBI.gov: CJIS Security Policy Resource Center
- Provide training support to ISOs
- Provide policy clarification to vendors in coordination with ISOs
- IJIS / IACP Podcasts



CJISSECPOL Resource Center Website

CJIS Security Policy Resource Center

Home | Requirements Companion Document (PDF | Excel) | 2024 ISO Symposium Presentations | Use Cases | Links of Importance | Submit a Question

Download Criminal Justice Information Services (CJIS) Security Policy - Version 5.9.5

| Evecutive Summany | DOCUMENT | PAGES | TEXT | | Zoom | Q Search |
|--|----------|-------|------|--|----------|----------|
| Change Management | | | | | | |
| Summary of Changes | | | | | | |
| Table of Contents | | | | U. S. Department of Justice | | |
| List of Figures | | | | Federal Bureau of Investigation | (inter) | |
| List of Priorities | | | | Criminal Justice Information Services Division | No. | |
| 1 Introduction | | | | | | |
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| 3 Roles and Responsibilities | | | | Security Policy | | |
| 4 Criminal Justice Information and Personally Identifiable Information | | | | Version 5.9.5 07/09/2024 | | |
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Requirements Companion document

- Companion document to the CJIS Security Policy
- Lists every requirement & "shall" statement, and corresponding location
- Lists the "Audit / Sanction" date for each requirement (modernization)
- Lists the control "Priority"
- Cloud "matrix" which shows the technical capability to meet requirements
- Updated annually in conjunction with the CJIS Security Policy
- New Excel version available



Requirements Companion document

| Ver 5.9.4 Location and New | Ver 5.9.5 Location and New Requirement | Title | Shall Statement / Requirement | Audit / Sanction | dit / stion Priority ate | Agency Responsibility by Cloud Model | | |
|-------------------------------|--|--|--|---------------------|--------------------------------|---|---------------------|--------------------|
| Requirement | | | | Date | | laaS | PaaS | SaaS |
| | | ີ ແ | IS Security Policy Section 5-15: System and Information Integrity (SI) | 2 | | | | |
| | | POLICY AND PROCEDURES | Develop, document, and disseminate to all organizational personnel with system and information integrity responsibilities and information system owners: | Zero-cycle | P2 | Agency | Agency | Agency |
| | | | Agency-level system and information integrity policy that: | Zero-cycle | P2 | Agency | Agency | Agency |
| | | | (a) Addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance; and | Zero-cycle | P2 | Agency | Agency | Agency |
| | | | (b) Is consistent with applicable laws, executive orders, directives, regulations, policies, standards, and guidelines; and | Zero-cycle | P2 | Agency | Agency | Agency |
| 5.15: SI-1 | 5.15: SI-1 | | Procedures to facilitate the implementation of the system and information integrity policy and the associated system and information integrity controls; | Zero-cycle | P2 | Agency | Agency | Agency |
| | 0.10.01-1 | | b. Designate organizational personnel with system and information integrity responsibilities to manage the development, documentation, and dissemination of the system and information integrity policy and procedures; and | Zero-cycle | P2 | Agency | Agency | Agency |
| | | | c. Review and update the current system and information integrity: | Zero-cycle | P2 | Agency | Agency | Agency |
| | | | Policy annually and following any security incidents involving unauthorized access to CJI or systems used to process, store, or transmit CJI; and | Zero-cycle | P2 | Agency | Agency | Agency |
| | | | Procedures annually and following any security incidents involving unauthorized access to CJI or systems used to process, store, or transmit CJI. | Zero-cycle | P2 | Agency | Agency | Agency |
| | 5.15: SI-2 | FLAW REMEDIATION | Identify, report, and correct system flaws; | Existing | P1 | Both | Service Provider | Service Provide |
| | | | Test software and firmware updates related to flaw remediation for effectiveness and potential side effects before installation; | 10/1/2024 | P1 | Both | Service Provider | Service Provide |
| | | | Install security-relevant software and firmware updates within the number of days listed after the release of the updates; | Existing | P1 | Both | Service Provider | Service |
| 5.15: SI-2 | | | Critical – 15 days | 10/1/2024 | P1 | Both | Service Provider | Service |
| | | | High – 30 days | 10/1/2024 | P1 | Both | Service Provider | Service Provide |
| | | п | Medium – 60 days | 10/1/2024 | P1 | Both | Service Provider | Service Provide |
| | | | Low – 90 days; and | 10/1/2024 | P1 | Both | Service Provider | Service Provide |
| | | | Incorporate flaw remediation into the organizational configuration management process. | 10/1/2024 | P1 | Both | Service Provider | Service Provide |
| 5.15: SI-2 (2) | 5.15: SI-2 (2) | (2) FLAW REMEDIATION AUTOMATED FLAW REMEDIATION STATUS | Determine if system components have applicable security-relevant software and firmware updates installed using vulnerability scanning tools as least quarterly or following any security incidents involving CJI or systems used to process, store, or transmit CJI. | 10/1/2024 | P1 | Both | Service Provider | Service Provide |
| | 5.15: SI-3 | MALICIOUS CODE PROTECTION | Implement signature-based malicious code protection mechanisms at system entry and exit points to detect and eradicate malicious code; | 10/1/2024 | P1 | Both | Service Provider | Service Provide |
| 5.15: SI-3 | | | Automatically update malicious code protection mechanisms as new releases are available in accordance with organizational configuration management policy and procedures; | Existing | P1 | Both | Service Provider | Service Provide |
| | | | Configure malicious code protection mechanisms to: | Existing | P1 | | | |
| | | | Perform periodic scans of the system at least daily and real-time scans of files from external sources at network entry and exit points and on all servers and endpoint devices as the files are downloaded, opened, or executed in accordance with organizational policy; and | Existing | P1 | Both | Service Provider | Service Provide |



FBI CJIS ISO Contact Information

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