

# IT-Grundschutz im Rest der Welt: Cybersecurity Framework und NIST SP 800-53

A. Koderman (SerNet)

# IT- Grundschutz Kompendium

## CON.5:

### IT-Grundschutz

#### CON.5 Entwicklung und Einsatz von Individualsoftware

##### Schnell zum Abschnitt

- ▼ 1 Beschreibung
  - ▼ 1.1 Einleitung
  - ▼ 1.2 Zielsetzung
  - ▼ 1.3 Abgrenzung und Modellierung
  - ▼ 2 Gefährdungslage
  - ▼ 2 1 Ungeeignete Verwaltung von Zugangs- und Zugriffsrechten
  - ▼ 2 2 Unzulängliche vertragliche Regelungen mit externen Dienstleistern
  - ▼ 2 3 Software-Konzeptionsfehler
  - ▼ 2 4 Undokumentierte Funktionen
  - ▼ 2 5 Fehlende oder unzureichende Sicherheitsmaßnahmen in Anwendungen
  - ▼ 3 Anforderungen
  - ▼ 3.1 Basis-Anforderungen
  - ▼ 3.2 Standard-Anforderungen
- Anforderungen bei erhöhtem Schutzbedarf

#### 4 Weiterführende Informationen

Die International Organization for Standardization (ISO) gibt

- in der Norm ISO/IEC 12207:2008, „System and software engineering - Software life cycle process“  
→ für die Entwicklung, Realisierung, Betrieb und Unterhaltung von Software

Das National Institute of Standards and Technology stellt in der „NIST Special Publication 800-53“ im Appendix F-SA „Family: System and Services acquisition, Family: System and communications protection and Family: System and information integrity“ weitergehende Anforderungen an den Umgang mit Individualsoftware.

and maintenance“ Anforderungen an die System-Entwicklung und den -betrieb.

Das Information Security Forum (ISF) macht in seinem Standard „The Standard of Good Practice for

### IT-Grundschutz- Kompendium

#### Bausteine

- ISMS: Sicherheitsmanagement
- ORP: Organisation und Personal
- CON: Konzeption und Vorgehensweisen
- OPS: Betrieb
- DER: Detektion und Reaktion
- APP: Anwendungen
- SYS: IT-Systeme

# IT- Grundschutz Kompendium

## Umsetzungs- hinweise:

### IT-Grundschutz

#### Umsetzungshinweise zum Baustein INF.7 Büroarbeitsplatz

##### Schnell zum Abschnitt

- ▼ 1 Beschreibung
- ▼ 1.1 Einleitung
- ▼ 1.2 Lebenszyklus
- ▼ 2 Maßnahmen
- ▼ 2.1 Basis-Maßnahmen
- ▼ 2.2 Standard-Maßnahmen
- ▼ 2.3 Maßnahmen für erhöhten Schutzbedarf

ISO/IEC 27001:2013 Management systems – Information technology – Security techniques – Information security management systems – Requirements, [ISO/IEC 27001:2013](#) Protection from malware, International Organization for Standardization (Hrsg.), ISO/IEC JTC 1/SC 27, Oktober 2013

- [ArbStättV] Arbeitsstättenverordnung  
Bundesministerium für Arbeit und Soziales (BMAS),  
<http://www.bmas.de/DE/Service/Gesetze/arbstaettenverordnung.html>, zuletzt abgerufen am 05.10.2018
- [BildscharbV] Bildschirmarbeitsschutzverordnung (BildscharbV)  
<https://www.arbeitsschutzgesetz.org/bildscharbv/>, zuletzt abgerufen am 05.10.2018

- [NIST80053PEP] Assessing Security and Privacy Controls for Federal Information Systems and Organizations  
NIST Special Publication 800-53, Revision 4, insbesondere Appendix F-PS Page F-2013, Family:  
Physical and environmental protection, April 2013,  
<http://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-53r4.pdf>, zuletzt abgerufen am 05.10.2018

<http://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-53r4.pdf>, zuletzt abgerufen am 05.10.2018

# IT- Grundschutz Kompendium

## SYS.3.2.1:

### IT-Grundschutz

#### SYS.3.2.1 Allgemeine Smartphones und Tablets

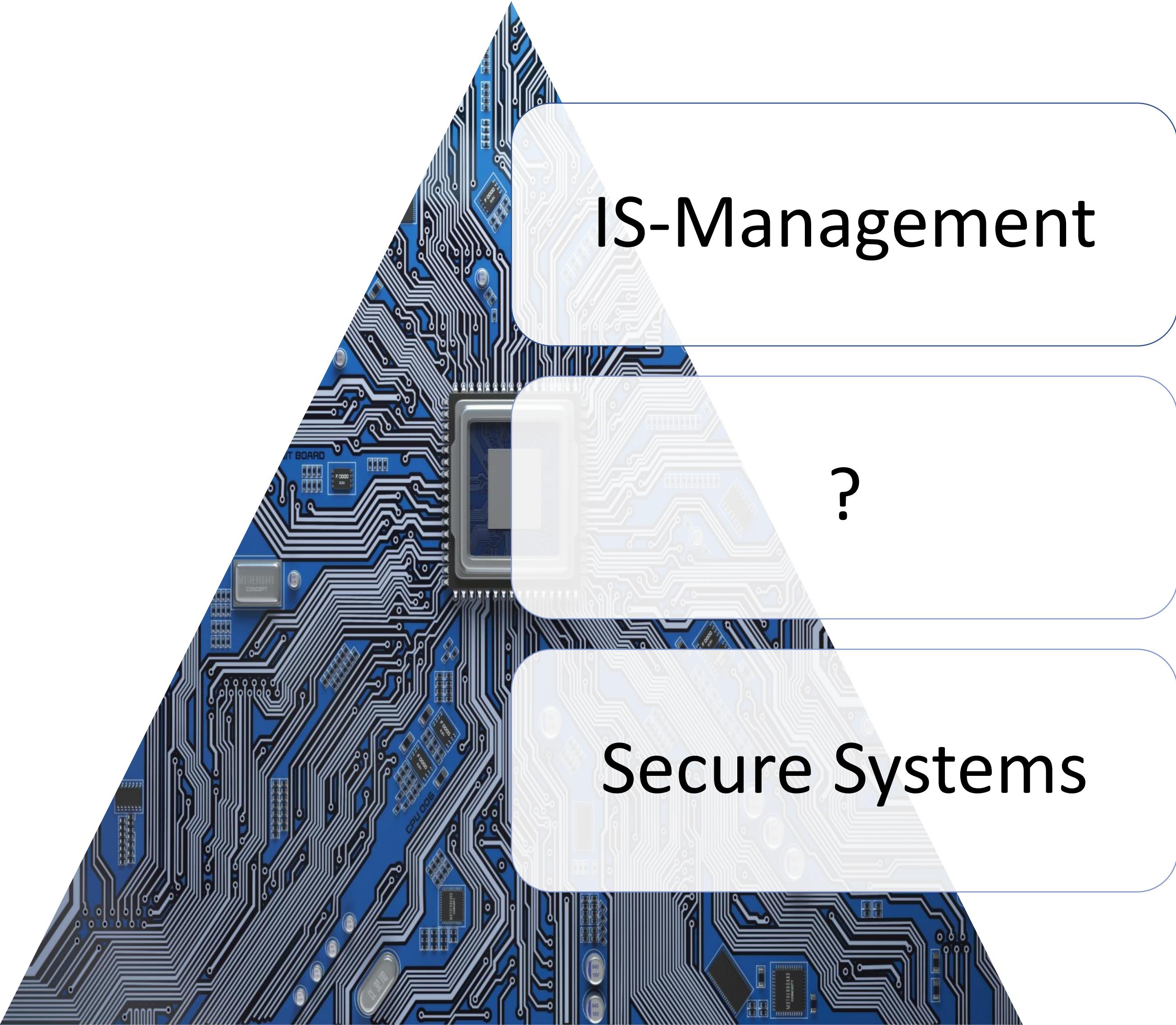
**Schnell zum Abschnitt**

- ▼ [1 Beschreibung](#)
- ▼ [1.1 Einleitung](#)
- ▼ [1.2 Zielsetzung](#)

#### 4 Weiterführende Informationen

Das National Institute of Standards and Technology (NIST) stellt folgende Dokumente im Bereich mobile Endgeräte bereit:

- „Guidelines for Managing the Security of Mobile Devices in the Enterprise: NIST Special Publication 800-124“, Revision 1, Juni 2013
- „Security and Privacy Controls for Federal Information Systems and Organizations: NIST Special Publication 800-53“, Revision 4, April 2013
- „Securing Electronic Health Record on Mobile Devices: NIST Special Publication 1800-1d“, Draft, Juli 2015



**IS-Management**

?

**Secure Systems**

# NIST Cybersecurity Framework

| Questions  | Where to Find Guidance  |
|--|---|
| What is Executive Order (EO) 13636?                          | Chapter 1 defines the purpose and intent of the EO as well as NIST responsibilities for developing the Cybersecurity Framework. |
| What are the core components of the Cybersecurity Framework? | Chapter 2 provides an overview of the three primary parts of the CSF.   |

## Introduction to the *Framework for Improving Critical Infrastructure Cybersecurity*

Recognizing the need for broad safeguards to protect the United States from cybersecurity attacks that could disrupt power, water, communication and other critical systems, US President Obama issued Executive Order (EO) 13636.<sup>3</sup> The EO directs the executive branch of the US government to collaborate with industrial partners around the world to work on the following initiatives:<sup>4</sup>

- Develop a technology-neutral voluntary cybersecurity framework.
- Promote and incentivize the adoption of cybersecurity practices.

| Function Unique Identifier | Function | Category Unique Identifier | Category   |
|----------------------------|----------|----------------------------|--|
| ID                         | Identify | AM                         | Asset Management                                 |
|                            |          | BE                         | Business Environment                             |
|                            |          | GV                         | Governance                                       |
|                            |          | RA                         | Risk Assessment                                  |
|                            |          | RM                         | Risk Management                                  |
| PR                         | Protect  | AC                         | Access Control                                   |
|                            |          | AT                         | Awareness and Training                           |
|                            |          | DS                         | Data Security                                    |
|                            |          | IP                         | Information Protection Processes and Information |
|                            |          | PT                         | Protective Technology                            |
| DE                         | Detect   | AE                         | Anomalies and Events                             |
|                            |          | CM                         | Security Continuous Monitoring                   |
|                            |          | DP                         | Detection Processes                              |
| RS                         | Respond  | CO                         | Communications                                   |
|                            |          | AN                         | Analysis   |
|                            |          | MI                         | Mitigation                                       |
|                            |          | IM                         | Improvements                                     |
| RC                         | Recover  | RP                         | Recovery Planning                                |
|                            |          | IM                         | Improvements                                     |
|                            |          | CO                         | Communications                                   |

Source: *Framework for Improving Critical Infrastructure Cybersecurity*, NIST, USA, 2014, Table 1

# NIST Cybersecurity Framework

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- Promote and incentivize the adoption of cybersecurity practices.

## Rundschreiben 10/2017 (BA) vom 03.11.2017

17 Auf Basis der Informationssicherheitsleitlinie sind konkretisierende, den Stand der Technik berücksichtigende Informationssicherheitsrichtlinien und Informationssicherheitsprozesse mit den Teilprozessen Identifizierung, Schutz, Entdeckung, Reaktion und Wiederherstellung zu definieren.

## Bankaufsichtliche Anforderungen an die IT (BAIT)

| Function Unique Identifier | Function | Category Unique Identifier | Category   |
|----------------------------|----------|----------------------------|--|
| ID                         | Identify | AM                         | Asset Management                                 |
|                            |          | BE                         | Business Environment                             |
|                            |          | GV                         | Governance                                       |
|                            |          | RA                         | Risk Assessment                                  |
|                            |          | RM                         | Risk Management                                  |
| PR                         | Protect  | AC                         | Access Control                                   |
|                            |          | AT                         | Awareness and Training                           |
|                            |          | DS                         | Data Security                                    |
|                            |          | IP                         | Information Protection Processes and Information |
|                            |          | PT                         | Protective Technology                            |
| DE                         | Detect   | AE                         | Anomalies and Events                             |
|                            |          | CM                         | Security Continuous Monitoring                   |
|                            |          | DP                         | Detection Processes                              |
|                            |          | CO                         | Communications                                   |
| RS                         | Respond  | AN                         | Analysis   |
|                            |          | MI                         | Mitigation                                       |
|                            |          | IM                         | Improvements                                     |
|                            |          | RP                         | Recovery Planning                                |
| RC                         | Recover  | IM                         | Improvements                                     |
|                            |          | CO                         | Communications                                   |

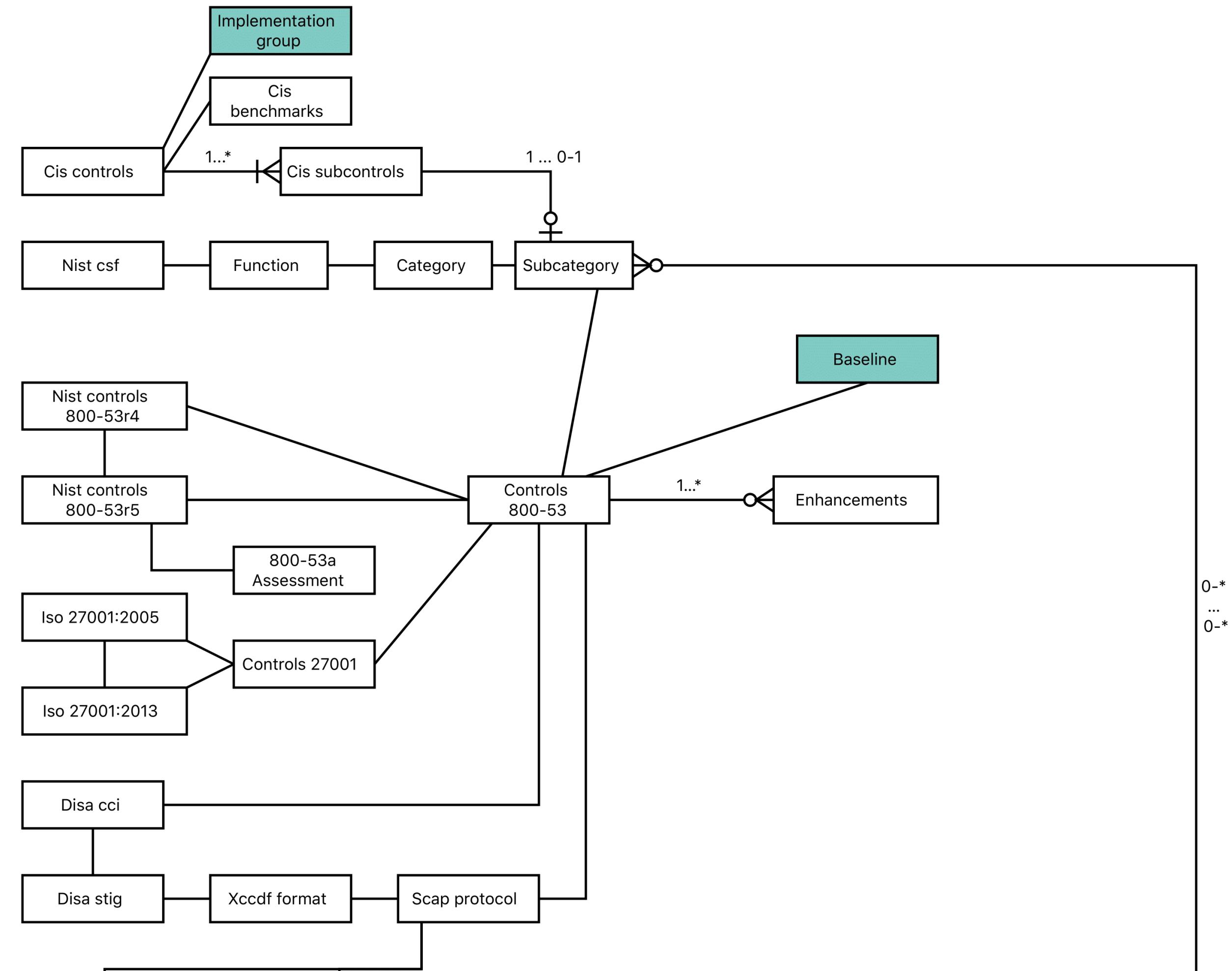
Source: *Framework for Improving Critical Infrastructure Cybersecurity*, NIST, USA, 2014, Table 1

# NIST Cybersecurity Framework



| PROTECT (PR) | Data Security (PR.DS): Information and records (data) are managed consistent with the organization's risk strategy to protect the confidentiality, integrity, and availability of information. | PR.DS-3: Assets are formally managed throughout removal, transfers, and disposition   | <ul style="list-style-type: none"><li>NIST SP 800-53 Rev. 4 SC-8, SC-11, SC-12</li><li>CIS CSC 1</li><li>COBIT 5 BAI09.03</li><li>ISA 62443-2-1:2009 4.3.3.3.9, 4.3.4.4.1</li><li>ISA 62443-3-3:2013 SR 4.2</li><li>ISO/IEC 27001:2013 A.8.2.3, A.8.3.1, A.8.3.2, A.8.3.3, A.11.2.5, A.11.2.7</li><li>NIST SP 800-53 Rev. 4 CM-8, MP-6, PE-16</li></ul> |
|--------------|--|---|---|
|              |  | PR.DS-4: Adequate capacity to ensure availability is maintained   | <ul style="list-style-type: none"><li>CIS CSC 1, 2, 13</li><li>COBIT 5 APO13.01, BAI04.04</li><li>ISA 62443-3-3:2013 SR 7.1, SR 7.2</li><li>ISO/IEC 27001:2013 A.12.1.3, A.17.2.1</li><li>NIST SP 800-53 Rev. 4 AU-4, CP-2, SC-5</li></ul>  |
| PROTECT (PR) | PR.DS-5: Protections against data leaks are implemented  | <ul style="list-style-type: none"><li>CIS CSC 13</li><li>COBIT 5 APO01.06, DSS05.04, DSS05.07, DSS06.02</li><li>ISA 62443-3-3:2013 SR 5.2</li><li>ISO/IEC 27001:2013 A.6.1.2, A.7.1.1, A.7.1.2, A.7.3.1, A.8.2.2, A.8.2.3, A.9.1.1, A.9.1.2, A.9.2.3, A.9.4.1, A.9.4.4, A.9.4.5, A.10.1.1, A.11.1.4, A.11.1.5, A.11.2.1, A.13.1.1, A.13.1.3, A.13.2.1, A.13.2.3, A.13.2.4, A.14.1.2, A.14.1.3</li><li>NIST SP 800-53 Rev. 4 AC-4, AC-5, AC-6, PE-19, PS-3, PS-6, SC-7, SC-8, SC-13, SC-31, SI-4</li></ul> |   |
| PROTECT (PR) | PR.DS-6: Integrity checking mechanisms are used to verify software, firmware, and information integrity  | <ul style="list-style-type: none"><li>CIS CSC 2, 3</li><li>COBIT 5 APO01.06, BAI06.01, DSS06.02</li><li>ISA 62443-3-3:2013 SR 3.1, SR 3.3, SR 3.4, SR 3.8</li><li>ISO/IEC 27001:2013 A.12.2.1, A.12.5.1, A.14.1.2, A.14.1.3, A.14.2.4</li><li>NIST SP 800-53 Rev. 4 SC-16, SI-7</li></ul>   |   |
| PROTECT (PR) | PR.DS-7: The development and testing environment(s) are separate from the production environment   | <ul style="list-style-type: none"><li>CIS CSC 18, 20</li><li>COBIT 5 BAI03.08, BAI07.04</li><li>ISO/IEC 27001:2013 A.12.1.4</li><li>NIST SP 800-53 Rev. 4 CM-2</li></ul>  |   |
| PROTECT (PR) | PR.DS-8: Integrity checking mechanisms are used to verify hardware integrity   | <ul style="list-style-type: none"><li>COBIT 5 BAI03.05</li><li>ISA 62443-2-1:2009 4.3.4.4.4</li><li>ISO/IEC 27001:2013 A.11.2.4</li><li>NIST SP 800-53 Rev. 4 SA-10, SI-7</li></ul>   | <ul style="list-style-type: none"><li>CIS CSC 3, 9, 11</li></ul>  |

# Standard-Korrelationen



# NIST 800-53r4

TABLE 1: SECURITY CONTROL IDENTIFIERS AND FAMILY NAMES

| ID | FAMILY                                | ID | FAMILY                                |
|----|---------------------------------------|----|---------------------------------------|
| AC | Access Control                        | MP | Media Protection                      |
| AT | Awareness and Training                | PE | Physical and Environmental Protection |
| AU | Audit and Accountability              | PL | Planning                              |
| CA | Security Assessment and Authorization | PS | Personnel Security                    |
| CM | Configuration Management              | RA | Risk Assessment                       |
| CP | Contingency Planning                  | SA | System and Services Acquisition       |
| IA | Identification and Authentication     | SC | System and Communications Protection  |
| IR | Incident Response                     | SI | System and Information Integrity      |
| MA | Maintenance                           | PM | Program Management                    |

## Control Families

RMF

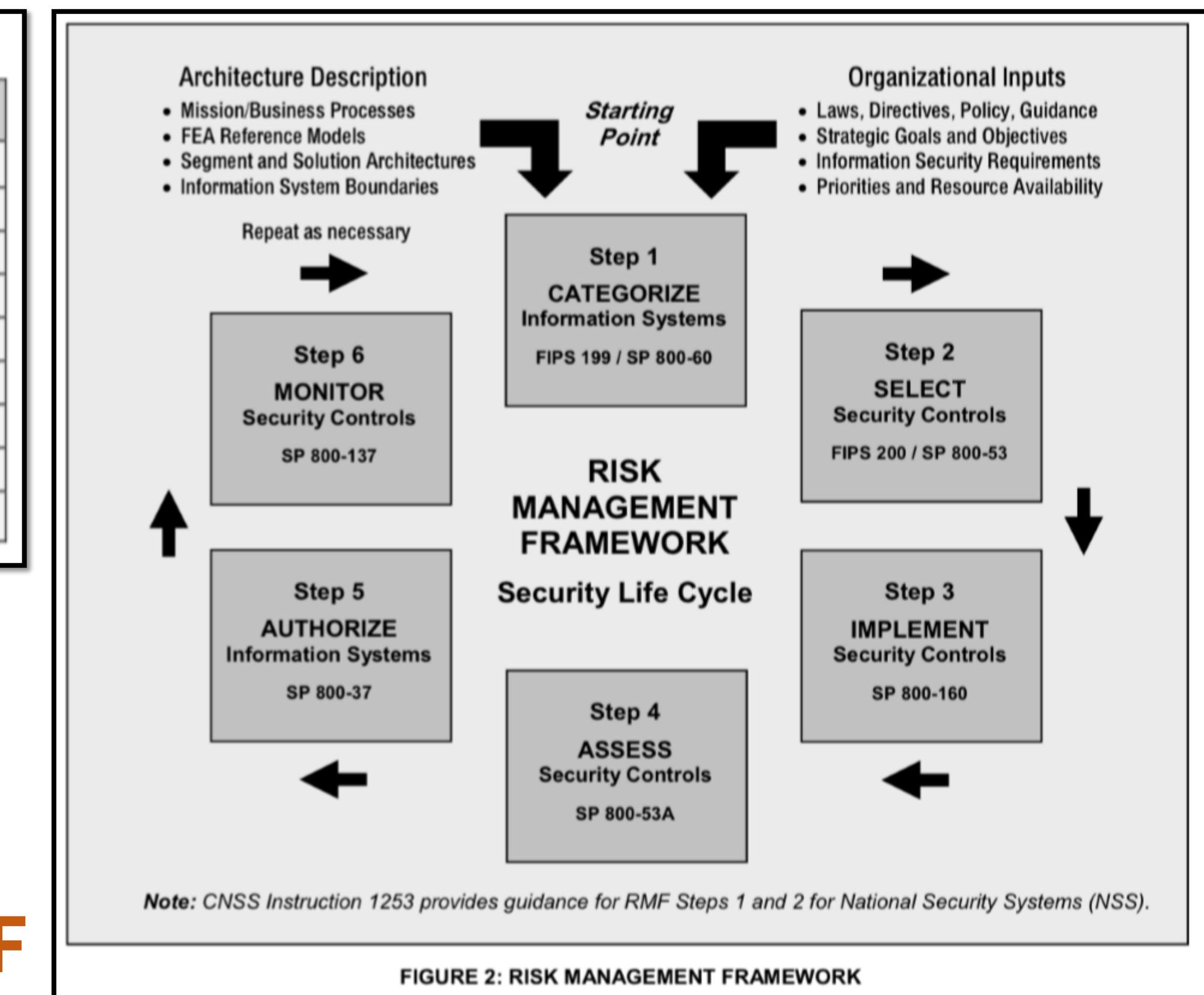


FIGURE 2: RISK MANAGEMENT FRAMEWORK

# NIST 800-53r4 Annex F: Controls

## CONTENT OF AUDIT RECORDS

**Control:** The information system generates audit records containing information that establishes what type of event occurred, when the event occurred, where the event occurred, the source of the event, the outcome of the event, and the identity of any individuals or subjects associated with the event.

**Supplemental Guidance:** Audit record content that may be necessary to satisfy the requirement of this control includes, for example, time stamps, source and destination addresses, user/process identifiers, event descriptions, success/fail indications, filenames involved, and access control or flow control rules invoked. Event outcomes can include indicators of event success or failure and event-specific results (e.g., the security state of the information system after the event occurred).

**Related controls:** AU-2, AU-8, AU-12, SI-11.

### Control Enhancements:

#### (1) CONTENT OF AUDIT RECORDS | ADDITIONAL AUDIT INFORMATION

**The information system generates audit records containing the following additional information:**  
**[Assignment: organization-defined additional, more detailed information].**

**Supplemental Guidance:** Detailed information that organizations may consider in audit records includes, for example, full-text recording of privileged commands or the individual identities of group account users. Organizations consider limiting the additional audit information to only that information explicitly needed for specific audit requirements. This facilitates the use of audit trails and audit logs by not including information that could potentially be misleading or could make it more difficult to locate information of interest.

#### (2) CONTENT OF AUDIT RECORDS | CENTRALIZED MANAGEMENT OF PLANNED AUDIT RECORD CONTENT

**The information system provides centralized management and configuration of the content to be captured in audit records generated by [Assignment: organization-defined information system components].**

**Supplemental Guidance:** This control enhancement requires that the content to be captured in audit records be configured from a central location (necessitating automation). Organizations coordinate the selection of required audit content to support the centralized management and configuration capability provided by the information system. **Related controls:** AU-6, AU-7.

**References:** None.

**Priority and Baseline Allocation:**

|    |     |      |     |          |      |              |
|----|-----|------|-----|----------|------|--------------|
| P1 | LOW | AU-3 | MOD | AU-3 (1) | HIGH | AU-3 (1) (2) |
|----|-----|------|-----|----------|------|--------------|

# NIST 800-53r4 Baselines

To assist organizations in making the appropriate selection of security controls for information systems, the concept of *baseline controls* is introduced. Baseline controls are the *starting point* for the security control selection process described in this document and are chosen based on the security category and associated impact level of information systems determined in accordance with FIPS Publication 199 and FIPS Publication 200, respectively.<sup>37</sup> Appendix D provides a listing of the security control baselines. Three security control baselines have been identified corresponding to the *low-impact*, *moderate-impact*, and *high-impact* information systems using the *high water mark* defined in FIPS Publication 200 and used in Section 3.1 of this document to provide an initial set of security controls for each impact level.<sup>38</sup>

# NIST 800-53r4 Baselines

To assist organizations in making the appropriate security control selection for their systems, the concept of **baseline controls** is introduced. This table provides the security control selection process described in the NIST 800-53r4 document. It includes the security category and associated impact level of initial control baselines corresponding to the **low-impact, moderate-impact, and high-impact** levels defined in FIPS Publication 199 and FIPS Publication 200. The table also lists the **high water mark** defined in FIPS Publication 200. These baselines provide an initial set of security controls for each impact level.

| CNTL NO.              | CONTROL NAME   | PRIORITY | INITIAL CONTROL BASELINES |                           |   |
|-----------------------|--|----------|---------------------------|---------------------------|---|
|                       |  |          | LOW                       | MOD                       | HIGH                                    |
| <b>Access Control</b> |  |          |                           |                           |   |
| AC-1                  | Access Control Policy and Procedures                       | P1       | AC-1                      | AC-1                      | AC-1                                    |
| AC-2                  | Account Management   | P1       | AC-2                      | AC-2 (1) (2) (3) (4)      | AC-2 (1) (2) (3) (4) (5) (11) (12) (13) |
| AC-3                  | Access Enforcement   | P1       | AC-3                      | AC-3                      | AC-3                                    |
| AC-4                  | Information Flow Enforcement                               | P1       | Not Selected              | AC-4                      | AC-4                                    |
| AC-5                  | Separation of Duties                                       | P1       | Not Selected              | AC-5                      | AC-5                                    |
| AC-6                  | Least Privilege  | P1       | Not Selected              | AC-6 (1) (2) (5) (9) (10) | AC-6 (1) (2) (3) (5) (9) (10)           |
| AC-7                  | Unsuccessful Logon Attempts                                | P2       | AC-7                      | AC-7                      | AC-7                                    |
| AC-8                  | System Use Notification                                    | P1       | AC-8                      | AC-8                      | AC-8                                    |
| AC-9                  | Previous Logon (Access) Notification                       | P0       | Not Selected              | Not Selected              | Not Selected                            |
| AC-10                 | Concurrent Session Control                                 | P3       | Not Selected              | Not Selected              | AC-10                                   |
| AC-11                 | Session Lock   | P3       | Not Selected              | AC-11 (1)                 | AC-11 (1)                               |
| AC-12                 | Session Termination  | P2       | Not Selected              | AC-12                     | AC-12                                   |
| AC-13                 | <b>Withdrawn</b>   | ---      | ---                       | ---                       | ---                                     |
| AC-14                 | Permitted Actions without Identification or Authentication | P3       | AC-14                     | AC-14                     | AC-14                                   |
| AC-15                 | <b>Withdrawn</b>   | ---      | ---                       | ---                       | ---                                     |
| AC-16                 | Security Attributes  | P0       | Not Selected              | Not Selected              | Not Selected                            |
| AC-17                 | Remote Access  | P1       | AC-17                     | AC-17 (1) (2) (3) (4)     | AC-17 (1) (2) (3) (4)                   |

# NIST 800-53r4: Assessments?

## -3 DEVICE IDENTIFICATION AND AUTHENTICATION

**Control:** The information system uniquely identifies and authenticates [Assignment: organization-defined specific and/or types of devices] before establishing a [Selection (one or more): local; remote; network] connection.

**Supplemental Guidance:** Organizational devices requiring unique device-to-device identification and authentication may be defined by type, by device, or by a combination of type/device. Information systems typically use either shared known information (e.g., Media Access Control [MAC] or Transmission Control Protocol/Internet Protocol [TCP/IP] addresses) for device identification or organizational authentication solutions (e.g., IEEE 802.1x and Extensible Authentication Protocol [EAP], Radius server with EAP-Transport Layer Security [TLS] authentication, Kerberos) to identify/authenticate devices on local and/or wide area networks. Organizations determine the required strength of authentication mechanisms by the security categories of information systems. Because of the challenges of applying this control on large scale, organizations are encouraged to only apply the control to those limited number (and type) of devices that truly need to support this capability. Related controls: AC-17, AC-18, AC-19, CA-3, IA-4, IA-5.

### Control Enhancements:

#### (1) DEVICE IDENTIFICATION AND AUTHENTICATION | CRYPTOGRAPHIC BIDIRECTIONAL AUTHENTICATION

The information system authenticates [Assignment: organization-defined specific devices and/or types of devices] before establishing [Selection (one or more): local; remote; network] connection using bidirectional authentication that is cryptographically based.

**Supplemental Guidance:** A local connection is any connection with a device communicating without the use of a network. A network connection is any connection with a device that communicates through a network (e.g., local area or wide area network, Internet). A remote connection is any connection with a device communicating through an external network (e.g., the Internet). Bidirectional authentication provides stronger safeguards to validate the identity of other devices for connections that are of greater risk (e.g., remote connections). Related controls: SC-8, SC-12, SC-13.

#### (2) DEVICE IDENTIFICATION AND AUTHENTICATION | CRYPTOGRAPHIC BIDIRECTIONAL NETWORK AUTHENTICATION

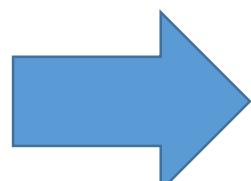
[Withdrawn: Incorporated into IA-3 (1)].

#### (3) DEVICE IDENTIFICATION AND AUTHENTICATION | DYNAMIC ADDRESS ALLOCATION

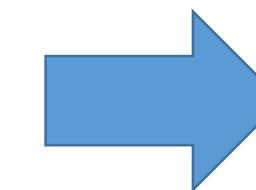
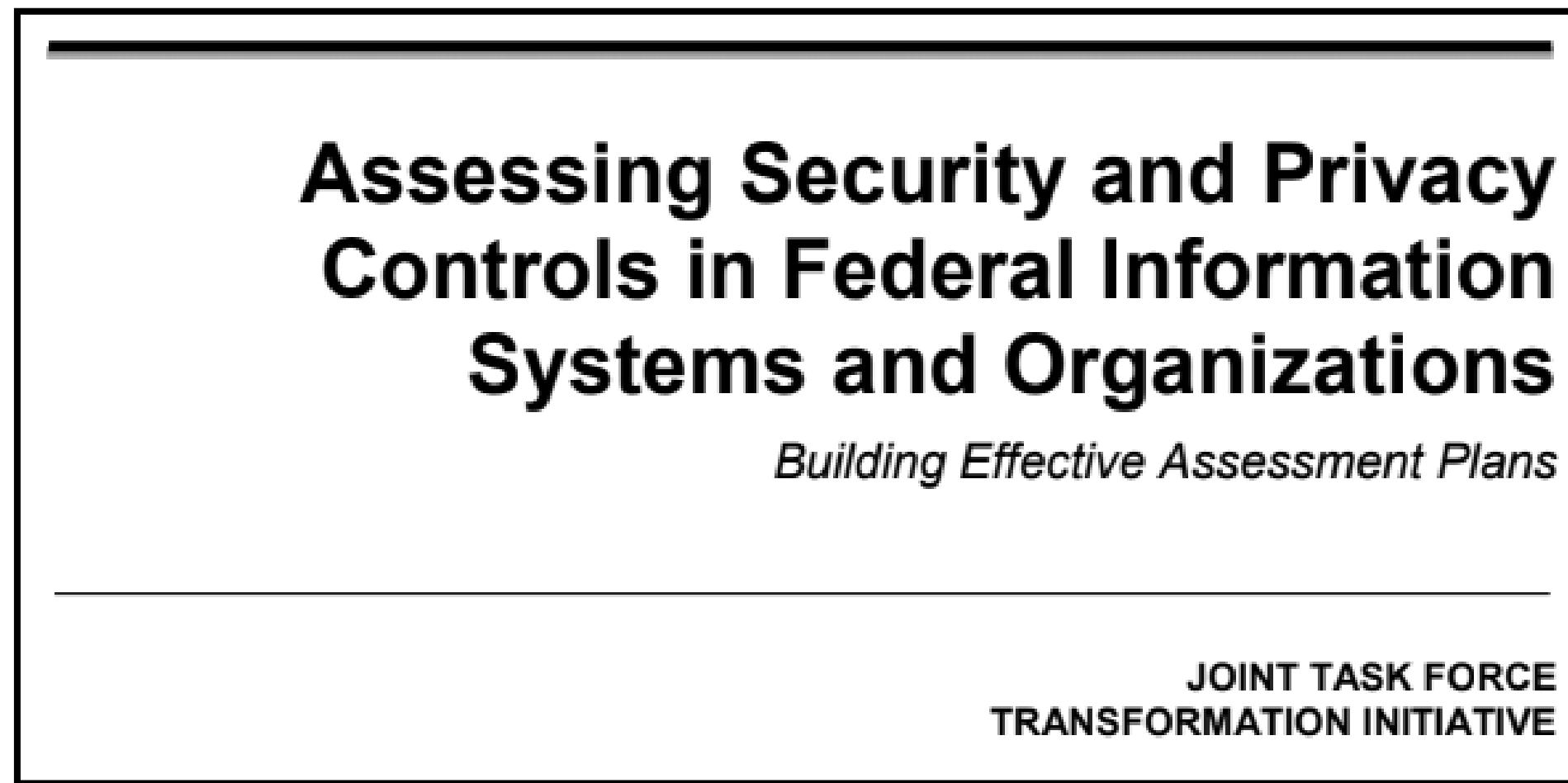
##### The organization:

(a) Standardizes dynamic address allocation lease information and the lease duration assigned to devices in accordance with [Assignment: organization-defined lease information and lease duration]; and

(b) Audits lease information when assigned to a device.



# NIST 800-53r4a: Assessments



| IA-3(3)    | DEVICE IDENTIFICATION AND AUTHENTICATION   DYNAMIC ADDRESS ALLOCATION |   |  |
|------------|---|---|--|
|            | <b>ASSESSMENT OBJECTIVE:</b><br><i>Determine if the organization:</i> |   |  |
| IA-3(3)(a) | IA-3(3)(a)[1]   | defines lease information to be employed to standardize dynamic address allocation for devices;   |  |
|            | IA-3(3)(a)[2]   | defines lease duration to be employed to standardize dynamic address allocation for devices;  |  |
|            | IA-3(3)(a)[3]   | standardizes dynamic address allocation of lease information assigned to devices in accordance with organization-defined lease information;   |  |
|            | IA-3(3)(a)[4]   | standardizes dynamic address allocation of the lease duration assigned to devices in accordance with organization-defined lease duration; and |  |
| IA-3(3)(b) | audits lease information when assigned to a device.                   |   |  |

| IA-3(3) | DEVICE IDENTIFICATION AND AUTHENTICATION   DYNAMIC ADDRESS ALLOCATION |   |  |
|---------|---|---|--|
|         | <b>POTENTIAL ASSESSMENT METHODS AND OBJECTS:</b>                      |   |  |
|         | Examine:  | [SELECT FROM: Identification and authentication policy; procedures addressing device identification and authentication; information system design documentation; information system configuration settings and associated documentation; evidence of lease information and lease duration assigned to devices; device connection reports; information system audit records; other relevant documents or records]. |  |
|         | Interview:  | [SELECT FROM: Organizational personnel with operational responsibilities for device identification and authentication; organizational personnel with information security responsibilities; system/network administrators; system developers].  |  |
|         | Test:   | [SELECT FROM: Automated mechanisms supporting and/or implementing device identification and authentication capability; automated mechanisms supporting and/or implementing dynamic address allocation; automated mechanisms supporting and/or implanting auditing of lease information].  |  |

| IA-3(4) | DEVICE IDENTIFICATION AND AUTHENTICATION   DEVICE ATTESTATION         |  |  |
|---------|---|--|--|
|         | <b>ASSESSMENT OBJECTIVE:</b><br><i>Determine if the organization:</i> |  |  |
| IA-3(4) | IA-3(4)[1]  | defines configuration management process to be employed to handle device identification and authentication based on attestation; and |  |
|         | IA-3(4)[2]  | ensures that device identification and authentication based on attestation is handled using a configuration management process.      |  |

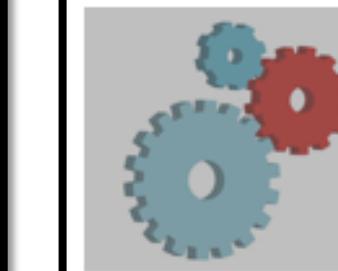
# Vgl.: IT-Grundschutz-Kompendium Checklisten

## Umsetzungshinweise zum Baustein SYS.2.1 Allgemeiner Client

Schnell zum Abschnitt

- ▼ 1 Beschreibung
- ▼ 1.1 Einleitung
- ▼ 1.2 Lebenszyklus
- ▼ 2 Maßnahmen
- ▼ 2.1 Basis-Maßnahmen
- ▼ 2.2 Standard-Maßnahmen
- ▼ 2.3 Maßnahmen für erhöhten Schutzbedarf
- ▼ 3 Weiterführende Informationen
- ▼ 3.1 Wissenswertes
- ▼ 3.2 Literatur

### 1 Beschreibung



### SYS.2.1 Allgemeiner Client



| Nummer:      | Erfasst am:    | Befragte Personen: |
|--------------|----------------|--------------------|
| Bezeichnung: | Erfasst durch: | -"-                |
| Standort:    |                | -"-                |

| SYS.2.1.A1 Benutzerauthentisierung |               |                |             | Basis           |
|------------------------------------|---------------|----------------|-------------|-----------------|
| Umgesetzt                          | Umsetzung bis | Verantwortlich | Bemerkungen | Kostenschätzung |

| SYS.2.1.A2 Rollentrennung |               |                |             | Basis           |
|---------------------------|---------------|----------------|-------------|-----------------|
| Umgesetzt                 | Umsetzung bis | Verantwortlich | Bemerkungen | Kostenschätzung |

| SYS.2.1.A3 Aktivieren von Autoupdate-Mechanismen |               |                |             | Basis           |
|--|---------------|----------------|-------------|-----------------|
| Umgesetzt  | Umsetzung bis | Verantwortlich | Bemerkungen | Kostenschätzung |

| SYS.2.1.A4 Regelmäßige Datensicherung |               |                |             | Basis           |
|---------------------------------------|---------------|----------------|-------------|-----------------|
| Umgesetzt                             | Umsetzung bis | Verantwortlich | Bemerkungen | Kostenschätzung |

| SYS.2.1.A5 Bildschirmsperre |  |  |  | Basis |
|-----------------------------|--|--|--|-------|
| Umgesetzt?                  | ja / teilweise / nein ODER entbehrlich |  |  |       |

# DISA STIGs

The screenshot shows a web page from the National Vulnerability Database (NVD). At the top, it says "Information Technology Laboratory" and "NATIONAL VULNERABILITY DATABASE". The main title is "Apple iOS 12 STIG Ver 1, Rel 2 Checklist Details" with a link to "Checklist Revisions". Below this, there's a section for "Supporting Resources" with a bullet point about downloading the XCCDF file from the Defense Information Systems Agency. The "Target" section lists "Apple iOS 12" with its CPE name "cpe:/o:apple:iphone\_os:12.0" and a link to "View CVEs". To the right, there's a "CHECKLIST HIGHLIGHTS" box containing the following information:

| Checklist Name:            | Apple iOS 12 STIG  |
|----------------------------|--|
| Checklist ID:              | 877  |
| Version:                   | Ver 1, Rel 2   |
| Type:                      | Compliance   |
| Review Status:             | Final  |
| Authority:                 | Governmental Authority:<br>Defense Information<br>Systems Agency |
| Original Publication Date: | 09/29/2018   |

# DISA STIGs

Information Technology Laboratory

## NATIONAL VULNERABILITY DATABASE

NCP

### Apple iOS 12 STIG Ver 1, Rel 2 Checklist Details (Checklist Revisions)

#### Supporting Resources:

- Download Standalone XCCDF 1.1.4 - Apple iOS 12 STIG - Ver 1, Rel 2
  - Defense Information Systems Agency

#### Target:

| Target       | CPE Name                                |
|--------------|---|
| Apple iOS 12 | cpe:/o:apple:iphone_os:12.0 (View CVEs) |

DISA STIG Viewer : 2.9.1 : STIG Explorer

File Export Checklist Options Help

STIG Explorer

▼ STIGs

| CK                                  | Name        |
|-------------------------------------|-------------|
| <input checked="" type="checkbox"/> | Apple iO... |

Filter on STIG name...

No content in table

Remove Filter... Remove All F...

Vul ID Rule Name

|         |               |
|---------|---------------|
| V-81755 | PP-MDF-301010 |
| V-81757 | PP-MDF-301020 |
| V-81759 | PP-MDF-301030 |
| V-81761 | PP-MDF-301050 |
| V-81763 | PP-MDF-301060 |
| V-81765 | PP-MDF-301080 |
| V-81767 | PP-MDF-301100 |
| V-81769 | PP-MDF-301100 |
| V-81771 | PP-MDF-301120 |
| V-81773 | PP-MDF-301120 |
| V-81775 | PP-MDF-301200 |
| V-81777 | PP-MDF-301220 |
| V-81779 | PP-MDF-302220 |
| V-81781 | PP-MDF-302220 |
| V-81783 | PP-MDF-302220 |
| V-81787 | PP-MDF-302220 |
| V-81789 | PP-MDF-302220 |
| V-81791 | PP-MDF-302220 |
| V-81793 | PP-MDF-302220 |
| V-81795 | PP-MDF-301260 |
| V-81797 | PP-MDF-301270 |
| V-81799 | PP-MDF-302510 |
| V-81807 | PP-MDF-991000 |
| V-81809 | PP-MDF-991000 |

Showing rule 10 out of 42

Apple iOS 12 Security Technical Implementation Guide :: Version 1, Release: 2 Benchmark Date: 25 Jan 2019

Vul ID: V-81773 Rule ID: SV-96487r1\_rule STIG ID: AIOS-12-001900

**Group Title:** PP-MDF-301120

**Rule Title:** Apple iOS must not display notifications (calendar information) when the device is locked.

**Discussion:** Many mobile devices display notifications on the lock screen so that users can obtain relevant information in a timely manner without having to frequently unlock the phone to determine if there are new notifications. However, in many cases, these notifications can contain sensitive information. When they are available on the lock screen, an adversary can see them merely by being in close physical proximity to the device. Configuring the MOS to not send notifications to the lock screen mitigates this risk.

SFR ID: FMT\_SMF\_EXT.1.1 #19

**Check Text:** Review configuration settings to confirm "Show Today view in Lock screen" is disabled.

This check procedure is performed on both the Apple iOS management tool and the Apple iOS device.

Note: If an organization has multiple configuration profiles, the check procedure must be performed on the relevant configuration profiles applicable to the scope of the review.

In the Apple iOS management tool, verify "Show Today view in Lock screen" is unchecked.

Alternatively, verify the text "<key>allowLockScreenTodayView</key><false/>" appears in the configuration profile (.mobileconfig file).

On the Apple iOS device:

1. Open the Settings app.
2. Tap "General".
3. Tap "Profiles & Device Management".
4. Tap the Configuration Profile from the iOS management tool containing the management policy.
5. Tap "Restrictions".
6. Verify "Today view on lock screen not allowed" is present.

If the "Show Today view in Lock screen" is checked in the Apple iOS management tool, "

# DISA STIGs

The image shows two windows side-by-side. On the left is the 'NATIONAL VULNERABILITY DATABASE' interface, specifically the 'Apple iOS 12 STIG Ver 1, Rel 2 Checklist Details' page. It displays a table of targets and their CPE names, and a section for 'Supporting Resources' with a link to download the XCCDF file. On the right is the 'DISA STIG Viewer : 2.9.1 : STIG Explorer' application. It shows a list of vulnerabilities (Vul ID) and rule names, with 'V-81773 PP-MDF-301120' selected. A large blue arrow points from the NVD checklist details towards the selected rule in the STIG viewer. The STIG viewer panel contains detailed information about the selected rule, including its title, discussion, fix text, and references.

**NATIONAL VULNERABILITY DATABASE**

**Apple iOS 12 STIG Ver 1, Rel 2 Checklist Details** (Checklist Revisions)

**Supporting Resources:**

- Download Standalone XCCDF 1.1.4 - Apple iOS 12 STIG - Ver 1, Rel 2
  - Defense Information Systems Agency

**Target:**

| Target       | CPE Name                                |
|--------------|---|
| Apple iOS 12 | cpe:/o:apple:iphone_os:12.0 (View CVEs) |

**DISA STIG Viewer : 2.9.1 : STIG Explorer**

File Export Checklist Options Help

STIG Explorer

Vul ID Rule Name

| Vul ID  | Rule Name     |
|---------|---------------|
| V-81755 | PP-MDF-301010 |
| V-81757 | PP-MDF-301020 |
| V-81759 | PP-MDF-301030 |
| V-81761 | PP-MDF-301050 |
| V-81763 | PP-MDF-301060 |
| V-81765 | PP-MDF-301080 |
| V-81767 | PP-MDF-301100 |
| V-81769 | PP-MDF-301100 |
| V-81771 | PP-MDF-301120 |
| V-81773 | PP-MDF-301120 |
| V-81775 | PP-MDF-301200 |
| V-81777 | PP-MDF-301220 |
| V-81779 | PP-MDF-302220 |

Filter Panel

Must match:  All  Any

Inclusive (+)... Exclusive (-)

+ / - Keyword Filter

No content in table

Remove Filter... Remove All F...

**Apple iOS 12 Security Technical Implementation Guide :: Version 1, Release: 2 Benchmark Date: 25 Jan 2019**

**Vul ID:** V-81773   **Rule ID:** SV-96487r1\_rule   **STIG ID:** AIOS-12-001900

**Group Title:** PP-MDF-301120

**Rule Title:** Apple iOS must not display notifications (calendar information) when the device is locked.

**Discussion:** Many mobile devices display notifications on the lock screen so that users can obtain relevant information in a timely manner without having to frequently unlock the phone to determine if there are new notifications. However, in many cases, these notifications can contain sensitive information. When they are available on the lock screen, an adversary can see them merely by being in close physical proximity to the device. Configuring the MOS to not send notifications to the lock screen mitigates this risk.

SFR ID: FMT\_SMF\_EXT.1.1 #19

**Check Text:** Review configuration settings to confirm "Show Today view in Lock screen" is disabled.

This check procedure is performed on both the Apple iOS management tool and the Apple iOS device.

screen not allowed", this is a finding.

**Fix Text:** Install a configuration profile to disable Notification Center from the device Lock screen.

**References**

**CCI:** CCI-000366: The organization implements the security configuration settings.  
NIST SP 800-53 :: CM-6 b  
NIST SP 800-53A :: CM-6.1 (iv)  
NIST SP 800-53 Revision 4 :: CM-6 b

**CCI-001806:** The organization defines methods to be employed to enforce the software installation policies.  
NIST SP 800-53 Revision 4 :: CM-11 b

If the "Show Today view in Lock screen" is checked in the Apple iOS management tool, "

# SCAP OVAL

The screenshot shows a Microsoft Docs page with the following details:

- Header:** Microsoft Docs Windows Azure Visual Studio Office Microsoft 365 .NET Mehr ▾ Docs / Enterprise Mobility + Security / Configuration Manager / Gerätekonformität Lesezeichen Feedback Teilen Design Auf Englisch
- Title:** Bereitstellen und Überwachen der SCAP-Konformität in Configuration Manager
- Date and Duration:** 30.07.2018 • 5 Minuten Lesedauer • 2
- Text:** Gilt für: Configuration Manager (Current Branch)
- Text:** Nachdem Sie die SCAP-Datenstromdateien [konvertiert und importiert](#) haben, können Sie die folgenden nächsten Schritte ausführen:

  - [Bereitstellen](#) der Konfigurationsbaselines für Sammlungen zur Bewertung von Geräten für die SCAP-Konformität
  - [Überwachen](#) der von den Zielclients zurückgegebenen Konformitätsdaten
  - [Exportieren](#) der Konformitätsergebnisse in das SCAP-Format

- Section:** Bereitstellen von SCAP-Konfigurationsbaselines
- Text:** Erstellen Sie zunächst die Gerätesammlungen für die Computer, die Sie für die SCAP-Konformität bewerten möchten.

# SCAP OVAL

Microsoft | Docs Windows Azure Visual Studio Office Microsoft 365 .NET Mehr ▾

Docs / Enterprise Mobility + Security / Configuration Manager / Gerätekonformität

Nach Titel filtern

Dokumentation zur Gerätekonformität

> Verstehen und Kennenlernen

> Erste Schritte

✓ Planung und Entwurf

Planen und Konfigurieren von Konformitätseinstellungen

> Aufgaben zur Verwaltung von Konformität

Sicherheit und Datenschutz

✓ Security Content Automation Protocol-Erweiterungen (SCAP)

Informationen zu SCAP-Erweiterungen

Installieren und Konfigurieren von SCAP-Erweiterungen

Bereitstellen und Überwachen von SCAP-Konformität

## Bereitstellen und Überwachen von SCAP-Konformität in Configuration Manager

30.07.2018 • 5 Minuten Lesedauer • ⓘ ⓘ

Gilt für: Configuration Manager (Current Branch)

Nachdem Sie die SCAP-Datenstromdateien konvertiert haben, können Sie die folgenden Schritte ausführen:

- [Bereitstellen](#) der Konfigurationsbaselines für Systeme
- [Überwachen](#) der von den Zielclients zurückgesendeten Konformitätsergebnisse
- [Exportieren](#) der Konformitätsergebnisse in das XML-Format

### Bereitstellen von SCAP-Konformität

Erstellen Sie zunächst die Gerätesammlungen für die SCAP-Konformität.

Overview Compliance Settings SCAP Dashboard

SCAP Dashboard

Configuration Baseline: Windows 10 Security T

Assignment: 16777222

XCCDF File: C:\ISCCM\_8355\_Main\_DEBUG\Admin\Windows\_10\_Security\_T.xccdf

CPE File: C:\ISCCM\_8355\_Main\_DEBUG\Admin\Windows\_10\_STIG.cpe

Benchmark: Windows\_10\_STIG

Profile: MAC-1\_Classified

Export Report Show Report

Client Compliance Status

Check Compliance Status

Top Non-Compliant Clients

Top Non-Compliant Checks

The dashboard displays several key metrics and visualizations:

- Client Compliance Status:** A pie chart showing the distribution of compliance status: Pass (green), Fail (red), Error (orange), Not Applicable (blue), Not Checked (purple), and Unknown (grey). The values are approximately: Pass (~91), Fail (~2), Error (~1), Not Applicable (~5), Not Checked (~1), and Unknown (~1).
- Check Compliance Status:** A pie chart showing the distribution of check compliance status: Pass (green), Fail (red), Error (orange), Not Applicable (blue), Not Checked (purple), and Unknown (grey). The values are approximately: Pass (~146), Fail (~1), Error (~1), Not Applicable (~5), Not Checked (~1), and Unknown (~1).
- Top Non-Compliant Clients:** A bar chart showing the count of non-compliant clients for each client ID. The x-axis lists client IDs: 16777222, 16777223, 16777224, 16777225, 16777226, 16777227, and 16777228. The y-axis ranges from 0 to 250. The bars show counts of approximately 140, 130, 230, 230, 230, 230, and 230 respectively.
- Top Non-Compliant Checks:** A bar chart showing the count of non-compliant checks for each check ID. The x-axis lists check IDs: 16777222\_1, 16777222\_2, 16777222\_3, 16777222\_4, 16777222\_5, 16777222\_6, 16777222\_7, and 16777222\_8. The y-axis ranges from 0 to 5. The bars show counts of approximately 2, 2, 2, 2, 2, 2, 2, and 2 respectively.

# SCAP OVAL

Microsoft | Docs Windows Azure Visual Studio Office Microsoft 365 .NET Mehr ▾

Docs / Enterprise Mobility + Security / Configuration Manager / Gerätekonformität

Nach Titel filtern

Dokumentation zur Gerätekonformität

- > Verstehen und Kennenlernen
- > Erste Schritte
- ✓ Planung und Entwurf
  - Planen und Konfigurieren von Konformitätseinstellungen
- > Aufgaben zur Verwaltung von Konformität
  - Sicherheit und Datenschutz
  - ✓ Security Content Automation Protocol-Erweiterungen (SCAP)
    - Informationen zu SCAP-Erweiterungen
    - Installieren und Konfigurieren von SCAP-Erweiterungen
    - Bereitstellen und Überwachen von SCAP-Konformität

Bereitstellen und Überwachen von SCAP-Konformität in Configuration Manager

30.07.2018 • 5 Minuten Lesedauer • ⓘ ⓘ

Gilt für: Configuration Manager (Current Branch)

Nachdem Sie die SCAP-Datenstromdateien konvertiert haben, können Sie die Konformitätsschritte ausführen:

- Bereitstellen der Konfigurationsbaselines für Systeme
- Überwachen der von den Zielclients zurückgegebenen Konformitätsergebnisse
- Exportieren der Konformitätsergebnisse in das XML-Format

Bereitstellen von SCAP-Konformität

Erstellen Sie zunächst die Gerätesammlungen für die Konformitätsschritte.

Overview Compliance Settings SCAP Dashboard

### SCAP Dashboard

Configuration Baseline: Windows 10 Security T Assignment: 16777222 XCCDF File: C:\ISCCM\_8355\_Main\_DEBUG\Admin\XCCDF\Windows\_10\_Security\_T.xccdf CPE File: C:\ISCCM\_8355\_Main\_DEBUG\Admin\CPE\Windows\_10\_STIG.cpe Benchmark: Windows\_10\_STIG Profile: MAC-1\_Classified Export Report Show

Client Compliance Status

Check Compliance Status

RED HAT SATELLITE

Any Context Monitor Content Containers Hosts Configure Infrastructure Access Insights

Administrator

Compliance policy: SCAP\_Security\_Guide\_for\_RHEL\_7

Hosts Breakdown

| Host Status                   | Count |
|-------------------------------|-------|
| Compliant with the policy     | 0     |
| Not compliant with the policy | 2     |
| Inconclusive results          | 0     |
| Never audited                 | 0     |

Total hosts: 2

Host Breakdown Chart

100% Incompliant hosts

Latest reports for policy: SCAP\_Security\_Guide\_for\_RHEL\_7

| Host                     | Date         | Passed | Failed | Other |
|--------------------------|--------------|--------|--------|-------|
| devmode-0003.example.com | 5 months ago | 34     | 33     | 1     |
| devmode-0004.example.com | 5 months ago | 34     | 33     | 1     |
| devmode-0003.example.com | 5 months ago | 34     | 33     | 1     |
| devmode-0003.example.com | 5 months ago | 34     | 33     | 1     |

[View Report](#) [View Report](#) [View Report](#) [View Report](#)

# Standard-Korrelationen

