SmartSuite

Framework / Cybersecurity / NIST Special Publications

# NIST SP 800-53B Rev. 5 – Moderate

NIST SP 800-53B Moderate Impact Baseline specifies security and privacy control requirements for protecting federal and organizational information systems.

## What it is

NIST SP 800-53B Revision 5 (Moderate Impact Baseline) is a regulatory framework that defines a standardized set of security and privacy control baselines to help organizations protect information systems within moderate impact environments. The baseline outlines core controls necessary to address cybersecurity and privacy risks associated with processing federal or sensitive organizational data.

Published by the National Institute of Standards and Technology (NIST), SP 800-53B is primarily used by U.S. federal agencies and contractors but is also referenced by private-sector organizations adopting NIST-based risk management practices. The framework covers key areas such as access control, system integrity, incident response, audit and accountability, and privacy safeguards, facilitating alignment with the NIST Risk Management Framework (RMF) and other regulatory requirements.

## At a glance

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|---|---|---|
| PUBLISHER<br>National Institute of Standards and Technology (NIST) | TYPE<br>Control Framework | VERSION<br>Rev. 5 |
| EFFECTIVE<br>September 23, 2020 | DOMAIN<br>Cybersecurity | FAMILY<br>NIST Special Publications |
| REGION<br>United States | ADOPTION MODEL<br>Regulatory Compliance | IMPLEMENTATION COMPLEXITY<br>Very High |

Source: https://csrc.nist.gov/pubs/sp/800/53/b/upd1/final

## Why it matters

- **Strengthen risk management practices** Support informed decision-making by establishing a consistent baseline for identifying and mitigating core security and privacy risks.
- **Enhance regulatory alignment** Promote adherence to federal requirements and industry standards, ensuring organizational practices meet evolving audit and compliance expectations.
- **Increase audit readiness** Provide a clear foundation for demonstrating control implementation and ongoing monitoring to both internal and external auditors.
- **Improve security oversight** Enable comprehensive visibility into security controls and processes, supporting effective oversight and continuous program improvement.


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## How SmartSuite supports NIST 800-53 Rev.5 Moderate

### Control Baseline Catalog

Organize Rev. 5 Low, Moderate, and High control baselines with system scope and implementation ownership.

### Baseline Selection and Tailoring

Document baseline selection, tailoring decisions, overlays, and control applicability for each system.

### Control Implementation Tasks and Review Cadence

Manage implementation tasks, control owners, and review cadences across systems and environments.

### Baseline Control Assessment Evidence

Capture assessment artifacts and testing evidence demonstrating baseline control effectiveness.

### Baseline Finding and Remediation Tracking

Track findings, vulnerabilities, and remediation activities aligned with baseline security requirements.

### Baseline Coverage and Authorization Readiness Reporting

Provide dashboards showing baseline coverage, open findings, and system authorization readiness.

## Common framework mappings

CIS Controls v8.1 | COBIT 2019 | FedRAMP Rev. 5 | HIPAA (NIST SP 800-66 Rev. 2) | HITRUST CSF v11.5 | ISO 27001:2022 | NIST CSF 2.0 | PCI DSS 4.0.1 | SOC 2

## Official resources

### NIST Special Publication 800-53B

Defines control baselines for information systems in moderate impact environments.

csrc.nist.gov/pubs/sp/800/53/b/upd1/final

### NIST SP 800-53 Revision 5

Defines the security and privacy controls for federal information systems.

csrc.nist.gov/publications/detail/sp/800-53/rev-5/final

### NIST Risk Management Framework (RMF) Overview

Describes the integration of NIST SP 800-53 controls within the Risk Management Framework.

csrc.nist.gov/projects/risk-management

## Frequently asked questions

### What is NIST SP 800-53B Rev. 5 (Moderate Impact Baseline) used for?

NIST SP 800-53B Rev. 5 (Moderate Impact Baseline) is used to define a standardized set of security and privacy controls for federal information systems categorized as moderate impact. The framework helps organizations mitigate cybersecurity and privacy risks to sensitive data and supports compliance with federal mandates and best practices.

### Is NIST SP 800-53B (Moderate Impact Baseline) mandatory?

For U.S. federal agencies and their contractors, implementing NIST SP 800-53B baselines is typically mandatory as part of compliance with the Federal Information Security Modernization Act (FISMA). Private sector organizations may adopt the framework voluntarily or when required by federal contracts or regulatory requirements.

### What systems are in scope for the Moderate Impact Baseline?

The Moderate Impact Baseline applies to information systems that, if compromised, would have a serious adverse effect on organizational operations, assets, or individuals. It is most relevant for federal and government-affiliated organizations, as well as contractors managing moderate-impact federal data.



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### What are the key controls required by the Moderate Impact Baseline?

The baseline specifies required controls across NIST SP 800-53 control families, such as access control, incident response, system maintenance, audit and accountability, and privacy protections. Organizations must also address tailoring and supplement controls based on risk assessments and operational needs.

### How do organizations implement the Moderate Impact Baseline?

Implementation requires selecting, tailoring, and documenting applicable controls based on risk assessments, system categorization, and organizational context. Control implementation involves technical and administrative measures, evidence collection, continuous monitoring, and periodic review for effectiveness.

### How does NIST SP 800-53B relate to other compliance frameworks?

NIST SP 800-53B aligns closely with the NIST Risk Management Framework (RMF) and supports cross-mapping to frameworks such as FedRAMP, FISMA, and certain privacy regulations. It serves as a foundational control source for broader compliance programs and federal information security initiatives.

### What is required to maintain compliance with NIST SP 800-53B Moderate Impact Baseline?

Ongoing compliance requires continuous monitoring of implemented controls, maintaining audit trails, timely remediation of weaknesses via POA&Ms, regular risk assessments, and periodic independent assessments to verify effectiveness and support system authorizations.

### How would SmartSuite support NIST SP 800-53B Rev. 5 (Moderate Impact Baseline)?

SmartSuite enables organizations to manage the Moderate Impact Baseline through integrated control libraries, risk registers, and automated compliance tracking. It streamlines evidence collection, supports remediation workflows, and provides dashboards and reports to maintain audit readiness and demonstrate ongoing compliance with NIST SP 800-53B requirements.

License included / downloadable: Yes NIST SP 800-53B Rev. 5 is publicly available for free from NIST's publications website. License included with platform

Full framework page and mappings: smartsuite.com/frameworks/nist-sp-800-53b-rev-5-moderate-baseline


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