

NIST SP 800-53B Rev. 5

– Low / Moderate / High

NIST SP 800-53B provides baseline security controls to help organizations select and implement safeguards for federal information systems.



What it is

NIST SP 800-53B Revision 5—Control Baselines for Information Systems and Organizations—is a cybersecurity and risk management framework that helps organizations select appropriate baseline security controls to safeguard federal information systems. This publication provides a structured approach to control selection, ensuring organizations can manage cybersecurity risks consistently across diverse operational environments.

Released by the National Institute of Standards and Technology (NIST), SP 800-53B supplements the NIST SP 800-53 catalog by providing predefined control baselines tailored for various system impact levels, such as low, moderate, and high. It is widely used by federal agencies, contractors, and organizations aligning with the NIST Risk Management Framework (RMF) to meet security, privacy, and compliance requirements.

At a glance

PUBLISHER National Institute of Standards and Technology (NIST)	TYPE Control Framework	VERSION Rev. 5
EFFECTIVE September 2020	DOMAIN Cybersecurity	FAMILY NIST Special Publications
REGION United States	INDUSTRY Government & Public Sector	ADOPTION MODEL Regulatory Compliance
IMPLEMENTATION COMPLEXITY Very High		

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

Why it matters

- Strengthen cybersecurity governance** Drive consistent risk management by guiding the selection and implementation of appropriate security controls across all information systems.
- Enhance regulatory alignment** Support compliance with federal mandates by aligning organizational security practices with recognized government standards and frameworks.
- Increase audit readiness** Facilitate smoother assessments and ongoing monitoring by providing clearly defined control requirements for auditors and implementers.
- Promote operational resilience** Help organizations maintain critical functions by implementing robust safeguards that reduce the impact of security incidents and system disruptions.

How SmartSuite supports NIST 800-53B Rev. 5

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

ISO 27001:2022

ISO 27002:2022

ISO 27701

NIST CSF 2.0

NIST Privacy Framework v1.0

PCI DSS 4.0.1

SOC 2

Official resources

NIST SP 800-53B Rev. 5

Defines control baselines for federal information systems to manage cybersecurity risks.

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

Frequently asked questions

What is NIST SP 800-53B used for?

NIST SP 800-53B is used to provide baseline security control sets for federal information systems based on their impact level (low, moderate, or high). It guides organizations in selecting appropriate controls to manage cybersecurity, privacy, and compliance risks systematically under the NIST Risk Management Framework.

Is NIST SP 800-53B mandatory for organizations?

NIST SP 800-53B is mandatory for most U.S. federal agencies and their contractors, as directed by federal mandates such as FISMA. For non-governmental organizations, adoption is voluntary but highly recommended for enhancing security postures and aligning with federal best practices.

What systems or organizations does NIST SP 800-53B apply to?

NIST SP 800-53B applies primarily to federal information systems that process, store, or transmit federal information. It is also relevant for contractors, cloud service providers, and organizations seeking to align with federal cybersecurity standards.

What are the key concepts in NIST SP 800-53B?

Key concepts include control baselines tailored to information system impact levels, baseline tailoring guidance, and overlays for customizing controls. The framework introduces profiles, impact analysis, and alignment with the NIST SP 800-53 control families.

How do organizations implement NIST SP 800-53B?

Implementation involves selecting the applicable control baseline based on system categorization, tailoring controls to organizational needs, integrating them with existing policies and procedures, and conducting risk assessments. Teams must document implementation efforts and collect evidence for compliance and audit purposes.

How does NIST SP 800-53B relate to the NIST Risk Management Framework (RMF)?

NIST SP 800-53B is a supporting publication for the NIST RMF, providing the structured control baselines used during core RMF steps such as control selection, implementation, assessment, and ongoing monitoring. It ensures standardized, risk-based control adoption throughout the RMF lifecycle.

What are the ongoing compliance requirements for NIST SP 800-53B?

Ongoing compliance with NIST SP 800-53B requires continuous monitoring, periodic risk assessments, regular control reviews, and prompt remediation of deficiencies. Documentation, evidence collection, and audit preparation are necessary to sustain authorization and respond to oversight.

How would SmartSuite support NIST SP 800-53B?

SmartSuite helps organizations manage NIST SP 800-53B by providing control library imports, baseline templates, and workflows for risk and control management. It enables automated evidence collection, supports compliance tracking, facilitates audit-ready reporting, and streamlines remediation activities to maintain continuous compliance.

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

Full framework page and mappings: smartsuite.com/frameworks/nist-sp-800-53b-rev-5-control-baselines-information-systems-and-organizations