

OWASP ASVS 4.0.3

OWASP ASVS 4.0.3 – Level 1 OWASP ASVS 4.0.3 – Level 2 OWASP ASVS 4.0.3 – Level 3



OWASP ASVS defines security requirements and

What it is criteria to assess and improve web application security.

OWASP Application Security Verification Standard (ASVS) is an open security framework that helps organizations assess and strengthen the security controls of web applications through a comprehensive set of requirements. The framework provides a structured basis for application-level security verification, supporting improvements in risk management and data protection.

Published and maintained by the Open Web Application Security Project (OWASP), the ASVS is used by security professionals, developers, and auditors to standardize web application security assessments. It covers critical areas such as authentication, access control, input validation, cryptography, error handling, and business logic, ensuring consistent security benchmarking across applications.

At a glance

PUBLISHER Open Web Application Security Project (OWASP)	TYPE Standard	VERSION OWASP ASVS v5.0
EFFECTIVE 2019	DOMAIN Software Security	FAMILY OWASP
REGION International	ADOPTION MODEL Operational Security	IMPLEMENTATION COMPLEXITY High

Source: <https://owasp.org/projects/asvs>

Why it matters

- **Strengthen application security governance** Establish clear benchmarks for oversight and accountability throughout the software development and deployment lifecycle.
- **Improve compliance posture** Support alignment with regulatory standards by providing evidence-based controls applicable to major compliance and industry frameworks.
- **Enhance secure software development** Enable security by design through detailed requirements integrated into software development and quality assurance processes.
- **Increase audit readiness** Facilitate more efficient and consistent security assessments, providing clear documentation and evidence for internal and external audits.

How SmartSuite supports OWASP ASVS 4.0

ASVS Level and Requirement Mapping

Select target level and track requirements by domain with ownership.

Secure Design and Architecture Evidence

Store design reviews, threat models, and control decisions tied to requirements.

Verification and Test Evidence

Capture test plans, results, scanning outputs, and validation proof.

Findings and SLA Tracking

Track findings, fixes, retesting, and closure verification with SLAs.

Release and Change Governance

Document release approvals and security checks as the app evolves.

Security Posture Reporting

Report requirement coverage, open gaps, and progress over time.

Common framework mappings

CIS Controls v8.1

MITRE ATT&CK

NIST 800-53 Rev.5

OWASP SAMM

OWASP Top 10 2021

Official resources

OWASP ASVS Version 4.0.3

Official OWASP specification providing detailed security requirements for web application verification.
github.com/OWASP/ASVS/releases

OWASP ASVS Quick Reference Guide

Provides an overview and essential information on implementing ASVS controls in applications.
owasp.org/projects/asvs

OWASP ASVS FAQ

Defines common questions and answers about the purpose and application of ASVS.
owasp.org/projects/asvs

OWASP ASVS Mapping Guide

Describes the mapping of ASVS requirements to other standards and frameworks.
owasp.org/projects/asvs

Frequently asked questions

What is OWASP ASVS used for?

OWASP ASVS is used to assess and improve the security of web applications by providing a comprehensive set of controls and verification requirements. It offers a structured basis for performing application-level security assessments to help manage risks and protect sensitive data.

Is OWASP ASVS certifiable or required by law?

OWASP ASVS is not a certifiable standard nor is it mandated by law. However, it is widely adopted as a best practice for ensuring robust security controls and is often used to demonstrate due diligence in meeting regulatory and contractual obligations.

What is the scope of OWASP ASVS and who should use it?

The scope of OWASP ASVS covers web application security controls including authentication, access control, cryptography, input validation, and error handling. It is intended for use by security professionals, developers, auditors, and organizations wanting consistent benchmarks for application security.

What are the key concepts and artifacts in OWASP ASVS?

Key concepts in OWASP ASVS include three security verification levels (V1–V3) aligned with application criticality, and control families that categorize requirements. Artifacts may include assessment reports, control mappings, evidence logs, and gap analysis results.

How is OWASP ASVS implemented in an organization?

Organizations typically implement OWASP ASVS by selecting an appropriate verification level, mapping ASVS requirements to their SDLC, and integrating controls into development, testing, and review processes. Both manual and automated tools may be used for ongoing verification and compliance monitoring.

How does OWASP ASVS relate to frameworks like ISO 27001 or PCI DSS?

OWASP ASVS complements broader security frameworks such as ISO 27001 and PCI DSS by offering detailed, application-level security controls. It can be used alongside these frameworks to strengthen the security posture of web applications and facilitate comprehensive compliance programs.

What are the ongoing compliance requirements for OWASP ASVS?

Ongoing compliance with OWASP ASVS requires regular application assessments, periodic reviews of implemented controls, collection of evidence from technical tests, and continuous updating of security processes as applications and threat landscapes evolve.

How would SmartSuite support OWASP ASVS?

SmartSuite supports OWASP ASVS by enabling organizations to manage and track ASVS controls, link requirements to risk registers, and automate evidence collection from tests and scans. The platform facilitates policy governance, remediation workflows, audit readiness, and provides consolidated reporting dashboards to support continuous compliance and security improvement.

License included / downloadable: Yes OWASP ASVS is published by the OWASP Foundation and is publicly available as an open security standard.

Full framework page and mappings: smartsuite.com/frameworks/owasp-asvs-4-0-3-application-security-verification-standard