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Framework / Software Security / OWASP

OWASP Application Security Verification Standard (ASVS) 4.0.3 (October 2021)

OWASP ASVS 4.0.3 (October 2021) is the superseded Application Security Verification Standard edition: 286 requirements, 14 chapters, three levels; ASVS 5.0.0 replaced it in May 2025.



What it is

OWASP ASVS 4.0, published as version 4.0.3 in October 2021, is a superseded edition of the OWASP Application Security Verification Standard: OWASP released ASVS 5.0.0 as the current version in May 2025, and this page describes the 4.0.3 text that many contracts, tools and verification reports still cite (see the OWASP project page for 5.0). The ASVS is a list of application security requirements or tests that architects, developers, testers, security professionals, tool vendors and consumers can use to define, build, test and verify secure applications, published by the OWASP Foundation under the Creative Commons Attribution ShareAlike 3.0 license.

Version 4.0.3 has 286 requirements in 14 chapters, V1 Architecture, Design and Threat Modeling through V14 Configuration, plus a glossary, references and an appendix of Internet of Things verification requirements. Each requirement has an identifier in the form chapter.section.requirement, such as 1.11.3, and is assigned to one or more of three verification levels: Level 1 for low assurance and completely penetration testable, Level 2 for applications that contain sensitive data and the recommended level for most applications, and Level 3 for the most critical applications. The standard has two goals: to help organizations develop and maintain secure applications, and to let security service vendors, security tool vendors and consumers align their requirements and offerings.

At a glance

PUBLISHER Open Worldwide Application Security Project (OWASP)	TYPE Standard	VERSION 4.0.3 (October 2021); superseded by ASVS 5.0.0 (May 2025)
EFFECTIVE October 2021	DOMAIN Software Security	FAMILY OWASP
REGION International	ADOPTION MODEL Voluntary	IMPLEMENTATION COMPLEXITY High

Source: owasp.org/www-project-application-security-verification-standard/

Why it matters

- **Two stated goals** Secure applications for the organizations that build them, and a common requirement set for security service vendors, tool vendors and consumers (Using the ASVS).
- **Three verification levels** Level 1, Level 2 and Level 3 increase in depth, so the verification effort matches the application's assurance needs rather than one list for every system.
- **Citable requirements** Every requirement has an identifier such as 1.11.3; OWASP asks reports and tools to cite the version too, in the form v4.0.3-1.11.3, because identifiers change between versions.
- **A blueprint for a checklist** Tailoring the ASVS to the organization's use cases focuses the work on the requirements that matter most to its projects and environments.

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How SmartSuite supports OWASP ASVS 4.0

Requirement Register by Chapter

Load the 286 requirements of 4.0.3 into Compliance Management by chapter V1 to V14 and section, each keyed by its versioned identifier (v4.0.3-1.11.3) and its Level 1, 2 or 3 assignment.

Target Level per Application

Record for each application the level chosen, the risk characteristics and business requirements behind the choice, and the owner, as the Applying ASVS in Practice section asks.

Requirement-Level Verification Record

Mark each in-scope requirement as verified, exception noted or not applicable, with the method used (documentation review, source code, configuration, interviews, testing) and the evidence attached.

Exceptions and Retest

Use Cyber & IT Risk to link each requirement with an exception to the application's risk entry, assign remediation, and record the retest result and closure date.

4.0 to 5.0 Migration Map

Hold OWASP's two-way mapping between 4.0.3 and 5.0.0 identifiers beside each requirement so verification history carries over as the organization adopts the current standard.

Verification Report Pack

Use Internal Audit Management to assemble the report OWASP describes: scope, target level, requirements included, rationale for exclusions, exceptions found and testing methods, for buyers and auditors.

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

The 4.0.3 release (October 28, 2021) of the Application Security Verification Standard, the last 4.x release before ASVS 5.0.0.

github.com/OWASP/ASVS/releases/tag/v4.0.3

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

Is OWASP ASVS 4.0.3 still the current version?

No. OWASP released ASVS 5.0.0 in May 2025, following 4.0 in 2019 and the minor update 4.0.3 in October 2021. Of the 286 requirements in 4.0.3, only 11 remain unchanged in 5.0, 15 had minor grammatical adjustments, 109 (38 percent) are no longer separate requirements and the rest were revised, and even unchanged requirements have different identifiers. OWASP publishes mapping documents so users can trace 4.x requirements to 5.0.

What are the three verification levels in ASVS 4.0.3?

Level 1 is for low assurance levels and is completely penetration testable; OWASP calls it the minimum required for all applications and defines it against vulnerabilities that are easy to discover and included in the OWASP Top 10 and similar checklists. Level 2 (Standard) is for applications that contain sensitive data and is the recommended level for most applications. Level 3 (Advanced) is for the most critical applications, such as those performing high value transactions or holding sensitive medical data, and requires more in-depth analysis of architecture, coding and testing.

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How should an ASVS requirement be cited?

Each requirement has an identifier in the form chapter.section.requirement, for example 1.11.3, where 1 is the Architecture chapter, 11 is its Business Logic Architecture section and 3 is the requirement. Because identifiers change between versions, OWASP asks other documents, reports and tools to include the version, as v4.0.3-1.11.3; an identifier without a version is assumed to refer to the latest standard.

Does OWASP certify applications or vendors against the ASVS?

No. OWASP's Assessment and Certification chapter says that OWASP, as a vendor-neutral nonprofit, does not certify any vendors, verifiers or software, and that any assurance, trust mark or certification claiming ASVS compliance is not officially endorsed by OWASP. Organizations may offer assurance services provided they do not claim official OWASP certification, and a verification report should state its scope, the target level, the requirements checked, the exceptions and the methods used.

What changed in ASVS 5.0 compared with 4.0.3?

ASVS 5.0.0 has approximately 350 requirements across 17 chapters, adds chapters for OAuth and OIDC, WebRTC, Self-contained Tokens, Web Frontend Security and Secure Coding and Architecture, removes the V1 Architecture chapter, and rewrites requirements around security goals rather than specific mechanisms, with new documented security decision requirements. The levels were redefined: Level 1 now holds 70 of 345 requirements (20 percent) compared with about 120 in 4.0.3, and organizations choose their level from their own maturity rather than a prescribed risk tier. Direct mappings to CWE and NIST SP 800-63 were removed pending a mapping through the OWASP Common Requirement Enumeration.

License included / downloadable: Yes ASVS 4.0.3 is published by the OWASP Foundation under the Creative Commons Attribution ShareAlike 3.0 license, with the requirement lists available in CSV, JSON and other formats; ASVS 5.0 is published under Creative Commons Attribution ShareAlike 4.0.

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