



Certified Secure Web Application Security Test Checklist

About

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All Certified Secure certifications, products and training are developed by IT security professionals with international recognized expertise. Our involvement in the IT security community worldwide, ensures relevant and high-quality standards. Delivering a wide variety of online challenges, videos, tools and more, Certified Secure is the authoritative source for practical IT security know-how.

Scope

This checklist can be used as a standard when performing a remote security test on a web application. For developers and auditors a separate Web Application Secure Development Checklist is available from <https://www.certifiedsecure.com/checklists>.

Usage

Security testers should use this checklist when performing a remote security test of a web application. A risk analysis for the web application should be performed before starting with the checklist. Every test on the checklist should be completed or explicitly marked as being not applicable. Once a test is completed the checklist should be updated with the appropriate result icon and a document cross-reference.

The completed checklist should never be delivered standalone but should be incorporated in a report detailing the risk analysis and checklist results and the scope and context of the performed remote security test.

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Result Icon Legend

Icon	Explanation
	Test was performed and results are okay
	Test was performed and results require attention
	Test was not applicable



#	Certified Secure Web Application Security Test Checklist	Result	Ref
1.0	Deployment		
1.1	Test for missing security updates		
1.2	Test for unsupported or end-of-life software versions		
1.3	Test for HTTP TRACK and TRACE methods		
1.4	Test for extraneous functionality		
1.5	Test the server using the Server Security Test Checklist		
2.0	Information Disclosure		
2.1	Test for extraneous files in the document root		
2.2	Test for extraneous directory listings		
2.3	Test for accessible debug functionality		
2.4	Test for sensitive information in log and error messages		
2.5	Test for sensitive information in robots.txt		
2.6	Test for sensitive information in source code		
2.7	Test for disclosure of internal addresses		
3.0	Privacy and Confidentiality		
3.1	Test for sensitive information stored in URLs		
3.2	Test for unencrypted sensitive information stored at the client-side		
3.3	Test for sensitive information stored in (externally) archived pages		
3.4	Test for content included from untrusted sources		



#	Certified Secure Web Application Security Test Checklist	Result	Ref
3.5	Test for caching of pages with sensitive information		
3.6	Test for insecure transmission of sensitive information		
3.7	Test for non-SSL/TLS pages on sites processing sensitive information		
3.8	Test for SSL/TLS pages served with mixed content		
3.9	Test for missing HSTS header on full SSL sites		
3.10	Test for known vulnerabilities in SSL/TLS		
3.11	Test for weak, untrusted or expired SSL certificates		
3.12	Test for the usage of unproven cryptographic primitives		
3.13	Test for the incorrect usage of cryptographic primitives		
4.0	State Management		
4.1	Test for client-side state management		
4.2	Test for invalid state transitions		
5.0	Authentication and Authorization		
5.1	Test for missing authentication or authorization		
5.2	Test for client-side authentication		
5.3	Test for predictable and default credentials		
5.4	Test for predictable authentication or authorization tokens		
5.5	Test for authentication or authorization based on obscurity		
5.6	Test for identifier-based authorization		



#	Certified Secure Web Application Security Test Checklist	Result	Ref
5.7	Test for acceptance of weak passwords		
5.8	Test for plaintext retrieval of passwords		
5.9	Test for missing rate limiting on authentication functionality		
5.10	Test for missing re-authentication when changing credentials		
5.11	Test for missing logout functionality		
6.0	User Input		
6.1	Test for SQL injection		
6.2	Test for path traversal and filename injection		
6.3	Test for cross-site scripting		
6.4	Test for system command injection		
6.5	Test for XML injection		
6.6	Test for XPath injection		
6.7	Test for XSL(T) injection		
6.8	Test for SSI injection		
6.9	Test for HTTP header injection		
6.10	Test for HTTP parameter injection		
6.11	Test for LDAP injection		
6.12	Test for dynamic scripting injection		
6.13	Test for regular expression injection		



#	Certified Secure Web Application Security Test Checklist	Result	Ref
6.14	Test for data property/field injection		
6.15	Test for protocol-specific injection		
6.16	Test for expression language injection		
7.0	Sessions		
7.1	Test for cross-site request forgery (CSRF)		
7.2	Test for predictable CSRF tokens		
7.3	Test for missing session revocation on logout		
7.4	Test for missing session regeneration on login		
7.5	Test for missing session regeneration when changing credentials		
7.6	Test for missing revocation of other sessions when changing credentials		
7.7	Test for missing Secure flag on session cookies		
7.8	Test for missing HttpOnly Flag on session cookies		
7.9	Test for non-restrictive domain on session cookies		
7.10	Test for non-restrictive or missing path on session cookies		
7.11	Test for predictable session identifiers		
7.12	Test for session identifier collisions		
7.13	Test for session fixation		
7.14	Test for insecure transmission of session identifiers		
7.15	Test for external session hijacking		



#	Certified Secure Web Application Security Test Checklist	Result	Ref
7.16	Test for missing periodic expiration of sessions		
8.0	File Uploads		
8.1	Test for storage of uploaded files in the document root		
8.2	Test for execution or interpretation of uploaded files		
8.3	Test for uploading outside of designated upload directory		
8.4	Test for missing size restrictions on uploaded files		
8.5	Test for missing type validation on uploaded files		
9.0	Content		
9.1	Test for missing or non-specific content type definitions		
9.2	Test for missing character set definitions		
9.3	Test for missing anti content sniffing measures		
10.0	XML Processing		
10.1	Test for XML external entity expansion		
10.2	Test for external DTD parsing		
10.3	Test for extraneous or dangerous XML extensions		
10.4	Test for recursive entity expansion		
11.0	Miscellaneous		
11.1	Test for missing anti-clickjacking measures		
11.2	Test for open redirection		



#	Certified Secure Web Application Security Test Checklist	Result	Ref
11.3	Test for insecure cross-domain access policy		
11.4	Test for missing rate limiting on e-mail functionality		
11.5	Test for missing rate limiting on resource intensive functionality		
11.6	Test for inappropriate rate limiting resulting in a denial of service		
11.7	Test for application- or setup-specific problems		