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Module 10.2

### Software Development Standards

In 2025, nearly everything is digital. Ensuring secure development of the tools and applications that are used in our personal lives, at work, and in government is extremely important as the impact of insecure software grows with software's adoption. Given what's at stake, several organizations have emerged to drive forward secure software best practices by setting standards, establishing frameworks, and pushing for policies that improve software security across industries. This paper will review three of these organizations BSA The Software Alliance, OWASP, and SAFEcode.

BSA The Software Alliance, is a global trade organization that represents the global enterprise software industry. It works across a broad range of cutting-edge industries in 20 global markets. Its mission is to support a broad range of interests by promoting policies that support innovation, protect intellectual property, and support the safe growth of the software industry. BSA does this by supporting software and technology through advocacy and policy. BSA runs and publishes research and recommendations that address legal and regulatory issues that influence and shape government policy around these issues. Through these studies and reports, it informs stakeholders about the current trends, emerging threats, and impact of cybersecurity issues. Through lobbying, it hopes to push forward best practices for cybersecurity at a governmental level. It also runs forums and events where industry leaders can share best practices.

The Open Web Application Security Project (OWASP) is a non-profit dedicated to improving the security of software. OWASP focuses on application security and promotes secure application software by providing guidelines, tools, and education materials for application developers, regardless of their industry. Their materials are free and maintained by a group of volunteers. An example of the educational material that they provide is the OWASP Top Ten. The OWASP Top Ten is a list of the most critical security risks for web applications. The purpose of the list to bring awareness to these and help software developers mitigate them. Along with educational materials, OWASP provides open-source tools, like scanners, to assist developers in creating secure software. OWASP also runs calls and conferences to talk about and promote secure application software development.

SAFEcode, short for Software Assurance Forum for Excellence in Code, is a non-profit organization that brings together leading software companies to collaborate and improve software security, to promote effective and scalable software systems. SAFEcode offers an NDA-protected environment so that representatives from top companies can on technical challenges, guide SAFECode's focus areas, and support their continued professional development. SAFEcode focuses on the engineering and management aspects of software security. It targets the enterprise, offering best practices and frameworks, case studies, white papers, training, and workshops that focus on collaboration.

Each of these organizations – BSA The Software Alliance, OWASP, and SAFEcode - contributes uniquely to the secure development landscape. BSA influences the regulatory environment through advocacy and policy, ensuring that software companies adhere to standards that protect intellectual property and foster innovation. OWASP promotes a community-driven approach and offers practical resources that empower developers to mitigate web application security risks. SAFEcode bridges the gap between technical excellence and business risk management by providing comprehensive best practices for enterprise-level software development. This holistic view not only strengthens the security of individual projects but also contributes to a more robust and resilient software ecosystem overall.

#### Sources

1. <https://www.bsa.org/about-bsa>
2. <https://owasp.org>
3. <https://safecode.org>