SYNOPSYS®

Satisfying FedRAMP AppSec Requirements With Synopsys Solutions

The challenge

Cloud service providers (CSPs) and federal agencies need tools and services that enable them to satisfy the application security (AppSec) aspects of the Federal Risk and Authorization Management Program (FedRAMP) requirements. FedRAMP is a United States government-wide program that provides a standardized approach to security assessment, authorization, and continuous monitoring for cloud products and services.

Per an Office of Management and Budget memorandum, any cloud services offering that holds federal data must be FedRAMP-authorized.

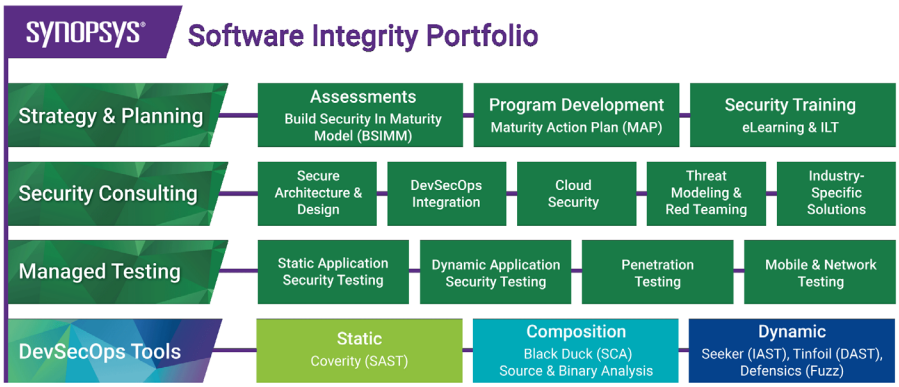
The solution

Synopsys has partnered with key third-party assessment organizations that perform initial and periodic assessments of cloud systems to ensure they meet FedRAMP requirements.

The FedRAMP Security Controls Baseline document provides an overview of the security controls, enhancements, parameters, requirements, and guidance listed in FedRAMP system security plan templates.

CSPs and federal agencies must implement these security controls, enhancements, parameters, and requirements within a cloud computing environment to satisfy FedRAMP requirements. The security controls and enhancements have been selected from the National Institute for Standards and Technology (NIST) SP 800-53 Revision 4 catalog of controls. The selected controls and enhancements are for cloud systems designated as low-, moderate-, and high-impact information systems, as defined in Federal Information Processing Standards Publication 199.

AppSec is a significant component of achieving FedRAMP compliance. The Synopsys software integrity portfolio includes AppSec tools and services that help address all AppSec-related FedRAMP needs and controls.



The benefits

Federal agencies can save money and time by adopting innovative cloud services to meet their critical mission needs.

CSPs offer cloud services that allow federal agencies to meet their mission needs securely and quickly.

FedRAMP aims to:

- Accelerate the adoption of secure cloud solutions through reuse of assessments and authorizations
- Improve confidence in the security of cloud solutions and security assessments
- Achieve consistent security authorizations using a baseline set of agreed-upon standards for cloud product approval in or outside of FedRAMP
- Ensure consistent application of existing security practices
- Increase automation and use of near-real-time data for continuous monitoring

Synopsys AppSec solutions provide a cohesive, seamless way to build integrity into your software development process to manage risk and compliance, create operational efficiencies, reduce time to market, and minimize costs.

Synopsys tools and services provide full (●) or partial (◑) compliance for the following AppSec-related FedRAMP controls.

FedRAMP				Synopsys		
Control family	**Control sort ID**	**Control name**	**Baseline control**	**Coverage**	**AppSec tools**	**AppSec services**
Awareness and training	AT-01	Security awareness and training policy and procedures	High Moderate Low LI-SaaS	◑		✓ AppSec program strategy
	AT-02	Security awareness training	High Moderate Low LI-SaaS	◑	✓ eLearning	✓ Instructor-led training
	AT-03	Role-based security training	High Moderate Low LI-SaaS	◑	✓ eLearning	✓ Instructor-led training AppSec program strategy
	AT-03 (03)	Security training | practical exercises	High	●	✓ eLearning	✓ Instructor-led training Social engineering
	AT-04	Security training records	High Moderate Low LI-SaaS	◑	✓ eLearning	
Security assessment and authorization	CA-01	Security assessment and authorization policy and procedures	High Moderate Low LI-SaaS	◑		✓ AppSec program strategy
	CA-02	Security assessments	High Moderate Low LI-SaaS	◑	✓ Multiple	✓ Multiple
	CA-02 (01)	Security assessments | independent assessors	High Moderate Low LI-SaaS	◑		✓ Multiple
	CA-02 (02)	Security assessments | specialized assessments	High Moderate	●	✓ Multiple	✓ Multiple
	CA-05	Plan of action and milestones	High Moderate Low LI-SaaS	◑		✓ AppSec program strategy
	CA-07	Continuous monitoring	High Moderate Low LI-SaaS	◑	✓ Black Duck®	
	CA-07 (01)	Continuous monitoring | independent assessment	High Moderate	◑		✓ Multiple
	CA-07 (03)	Continuous monitoring | trend analyses	High	◑	✓ Black Duck	
	CA-08	Penetration testing	High Moderate	●		✓ Pen testing
	CA-08 (01)	Penetration testing | independent penetration agent or team	High Moderate	●		✓ Pen testing

FedRAMP				Synopsys		
Control family	**Control sort ID**	**Control name**	**Baseline control**	**Coverage**	**AppSec tools**	**AppSec services**
Configuration management	CM-03 (02)	Configuration change control | test | validate | document changes	High	◑	✓ Multiple	✓ Pen testing
	CM-04	Security impact analysis	High Moderate	●	✓ Multiple	✓ Pen testing
	CM-05	Access restrictions for change	High Moderate	◑		✓ AppSec program strategy
	CM-07 (01)	Least functionality | periodic review	High Moderate	●		✓ Pen testing
	CM-10 (01)	Software usage restrictions | open source software	High Moderate	●	✓ Black Duck	✓ AppSec program strategy
Identification and authentication	IA-05 (07)	Authenticator management | no embedded unencrypted static authenticators	High Moderate	●	✓ Multiple	✓ Multiple
Planning	PL-02	System security plan	High Moderate Low LI-SaaS	●		✓ AppSec program strategy Architecture risk analysis Threat modeling
	PL-02 (03)	System security plan | plan/coordinate with other organizational entities	High Moderate	◑		✓ Multiple
	PL-08	Information security architecture	High Moderate	◑		✓ Architecture risk analysis Threat modeling
Risk assessment	RA-03	Risk assessment	High Moderate Low LI-SaaS	◑		✓ Architecture risk analysis
	RA-05	Vulnerability scanning	High Moderate Low LI-SaaS	●	✓ Multiple	✓ Multiple
	RA-05 (01)	Vulnerability scanning | update tool capacity	High Moderate	●	✓ Multiple	✓ Multiple
	RA-05 (02)	Vulnerability scanning | update by frequency / prior to new scan / when identified	High Moderate	●	✓ Multiple	✓ Multiple
	RA-05 (03)	Vulnerability scanning | breadth / depth of coverage	High Moderate	●	✓ Multiple	✓ Multiple
	RA-05 (04)	Vulnerability scanning | discoverable information	High	●	✓ Multiple	✓ Multiple
	RA-05 (06)	Vulnerability scanning | automated trend analyses	High Moderate	●	✓ Multiple	✓ Multiple
	RA-05 (08)	Vulnerability scanning | review historic audit logs	High Moderate	◑		✓ Blue teaming
	RA-05 (10)	Vulnerability scanning | correlate scanning information	High	●	✓ Multiple	✓ Multiple

FedRAMP				Synopsys		
Control family	Control sort ID	Control name	Baseline control	Coverage	AppSec tools	AppSec services
System and services acquisition	SA-03	System development lifecycle	High Moderate Low LI-SaaS	●	✓ eLearning	✓ AppSec program strategy Instructor-led training Staff augmentation
	SA-04 (01)	Acquisition process | functional properties of security controls	High Moderate	●		✓ Architecture risk analysis Threat modeling
	SA-04 (02)	Acquisition process | design / implementation information for security controls	High Moderate	●		✓ Architecture risk analysis Threat modeling
	SA-04 (08)	Acquisition process | continuous monitoring plan	High Moderate	●		✓ Architecture risk analysis Threat modeling
	SA-04 (09)	Acquisition process | functions / ports / protocols / services in use	High Moderate	●		✓ Architecture risk analysis Threat modeling
	SA-05	Information system documentation	High Moderate Low LI-SaaS	◑		✓ AppSec program strategy Architecture risk analysis Threat modeling
	SA-08	Security engineering principles	High Moderate	●		✓ AppSec program strategy Architecture risk analysis Threat modeling
	SA-09 (01)	External information systems | risk assessments / organizational approvals	High Moderate	◑	✓ Multiple	✓ Multiple
	SA-10	Developer configuration management	High Moderate	◑	✓ Multiple	✓ Multiple
	SA-11	Developer security testing and automation	High Moderate	●	✓ Multiple	✓ Multiple
	SA-11 (01)	Developer security testing and automation | static code analysis	High Moderate	●	✓ Coverity®	✓ Secure code review
	SA-11 (02)	Developer security testing and automation | threat and vulnerability analyses	High Moderate	●	✓ Multiple	✓ Multiple
	SA-11 (08)	Developer security testing and automation | dynamic code analysis	High Moderate	●	✓ Defensics® Seeker® Tinfoil™	✓ DAST
	SA-12	Supply chain protection	High	●	✓ Multiple	✓ Multiple
	SA-15	Development process, standards, and tools	High	●	✓ Multiple	✓ Multiple
	SA-16	Developer-provided training	High	●	✓ eLearning	✓ Instructor-led training
	SA-17	Developer security architecture and design	High	●		✓ Architecture risk analysis Threat modeling

FedRAMP				Synopsys		
Control family	Control sort ID	Control name	Baseline control	Coverage	AppSec tools	AppSec services
System and information integrity	SI-01	System and information integrity policy and procedures	High Moderate Low LI-SaaS	◑		✓ AppSec program strategy
	SI-02	Flaw remediation	High Moderate Low LI-SaaS	◑	✓ Multiple	✓ Multiple
	SI-02 (01)	Flaw remediation | central management	High	◑	✓ Multiple	✓ Multiple
	SI-02 (02)	Flaw remediation | automated flaw remediation status	High Moderate	◑	✓ Multiple	✓ Multiple
	SI-02 (03)	Flaw remediation | time to remediate flaws / benchmarks for corrective actions	High Moderate	◑	✓ Multiple	✓ Multiple
	SI-03	Malicious code protection	High Moderate Low LI-SaaS	◑		✓ Custom
	SI-05	Security alerts, advisories, and directives	High Moderate Low LI-SaaS	◑	✓ Black Duck	
	SI-05 (01)	Security alerts, advisories, and directives | automated alerts and advisories	High	◑	✓ Black Duck	
	SI-06	Security function verification	High Moderate	◑	✓ Multiple	✓ Multiple
	SI-10	Information input validation	High Moderate	●	✓ Multiple	✓ Multiple

The Synopsys difference

Synopsys helps development teams build secure, high-quality software, minimizing risks while maximizing speed and productivity. Synopsys, a recognized leader in application security, provides static analysis, software composition analysis, and dynamic analysis solutions that enable teams to quickly find and fix vulnerabilities and defects in proprietary code, open source components, and application behavior.

For more information about the Synopsys Software Integrity Group, visit us online at www.synopsys.com/software.

Synopsys, Inc.
185 Berry Street, Suite 6500
San Francisco, CA 94107 USA

U.S. Sales: 800.873.8193
International Sales: +1 415.321.5237
Email: sig-info@synopsys.com