

# Cloud Security Maturity Action Plan (MAP)

**Clear directions  
for establishing or  
maturing your software  
security initiative in the  
cloud**

## Overview

Organizations of all sizes are continually striving to balance modernization, dependability, productivity, and security as they increasingly use public cloud services to host and deliver their application workloads. But whether you're migrating to the cloud or developing cloud-native applications, you need to adapt your software security practices to address the unique opportunities and risks that come with cloud deployment. Our Cloud Security Maturity Action Plan (MAP) helps you build a detailed plan and roadmap with a prioritized list of recommendations to improve your cloud security strategy as part of your [software security initiative \(SSI\)](#).

## Build, evolve, and maintain your SSI in the cloud

The Cloud Security MAP helps you set [cloud security objectives](#), outline a strategy to reach those objectives from where you are today, and evaluate the resources and processes you'll need to attain your cloud security goals. We work closely with your key stakeholders to understand your organization's current state, define an achievable future state, and develop a MAP to advance your SSI. The plan addresses six security capabilities:

### Identity and access management

IAM forms the backbone of cloud security deployment. To secure your cloud deployment, you must establish accounts with the appropriate level of privileges to provision or orchestrate resources. Key areas to assess:

- Audits for sources of authentication and authorization
- Policies and procedures for appropriate user groups
- Roles and responsibilities for minimal human access to production systems

### Data protection

Safeguarding important data is a critical piece of building and operating information systems in the cloud. Key areas to assess:

- Inventory and classification of data assets
- Policies and procedures for safeguarding data in transit and at rest
- Compliance requirements based on business needs and risk tolerance
- Opportunities for encryption and responsible retention of data

### Infrastructure security

The foundational infrastructure for the cloud must be inherently secure, whether your cloud is public, private, or hybrid. Key areas to assess:

- Security requirements for the network, compute, and storage stack
- Network topology in regard to segmentation and multitenancy concerns
- Provisioning needs for automation and orchestration opportunities
- Access control requirements

Once you have your Cloud Security MAP, we can help you socialize it to get the buy-in, resources, and support you need to implement it.

## Logging and monitoring

Logging and monitoring is key to gaining greater visibility into occurrences within a cloud environment in real time, or near real time. Key areas to assess:

- Inventory lists of logging assets to identify aggregation, correlation, and analysis opportunities
- Policies and procedures for alerting and notifications
- Thresholds for critical business functions
- Tools for logging and monitoring activities

## Incident response

You need a solid incident response plan to contain an event and return to a known good state. Key areas to assess:

- Categorization of critical business functions and assignment of risk profiles
- Policies and procedures for incident response, alerts, and notifications
- Metrics to determine the severity of incidents and assign appropriate responses
- Simulation and red teaming efforts to test incident response infrastructure

## Vulnerabilities and configuration analysis

Using an automated security mechanism for both configuration management and vulnerability assessments can be a cost-effective approach for cloud environments. Key areas to assess:

- Cloud configurations to understand resource deployment and potential vulnerabilities
- [Security testing](#) for mobile and web applications, APIs, and containers

## Sized to fit

Take advantage of our 20+ years of experience helping customers establish successful SSIs. Once you have your Cloud Security MAP, we can help you socialize it to get the buy-in, resources, and support you need to implement it.

## Features

Cloud Security MAP feature	Details
Current state	<ul style="list-style-type: none"><li>• Current capability maturity</li><li>• 6 security capabilities</li></ul>
Future state	<ul style="list-style-type: none"><li>• 24-month roadmap</li><li>• Recommendations for 6 security capabilities</li></ul>
Deliverable format	<ul style="list-style-type: none"><li>• Executive PowerPoint with current state and roadmap views</li></ul>

## 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. With a combination of industry-leading tools, services, and expertise, only Synopsys helps organizations optimize security and quality in DevSecOps and throughout the software development life cycle.

For more information, go to [www.synopsys.com/software](http://www.synopsys.com/software).

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