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CSPM vs DSPM: Why You Need Both



Wiz Experts Team
May 12, 2024

4 minute read

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Discover the similarities between CSPM and DSPM, what factors set them apart, and which one is the best choice for your organization's needs.

TL;DR

- **Cloud security** is complex, and avoiding misconfigurations, vulnerabilities, and exposed data is essential for organizations to cut security risks.
- **Cloud security posture management (CSPM)** and **data security posture management (DSPM)** are approaches that improve security in the cloud.
- **CSPM** is primarily concerned with managing the security posture of cloud infrastructure. It automates the identification and remediation of risks associated with cloud resource configurations.
- **DSPM** focuses specifically on securing data across cloud environments. It helps organizations discover, classify, and protect data stored in the cloud.

The CSPM Buyer's Guide [RFP Template Included]

Navigating the alphabet soup of cloud security tools is challenging – CSPM? CNAPP? CDR? We've simplified your decision-making process and laid all the criteria for a modern CSPM solution.

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Table of contents

[TL;DR](#)[What is CSPM?](#)[What is DSPM?](#)[CSPM vs DSPM: How do they compare?](#)[How to choose?](#)[A holistic, all-in-one security experience](#)[Comparing other cloud security solutions](#)

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What is CSPM?

Cloud security posture management (CSPM) is an automated approach that continuously monitors your cloud environments, uncovering and resolving misconfigurations in real time. This enables you to take immediate action on security threats and proactively improve your cloud security posture.



Orca Security Ltd.
Exhibit 2156
Wiz v. Orca
IPR2024-01190
Ex. 2156-001

[Cloud security posture management \(CSPM\)](#) is an automated approach that continuously monitors your cloud environments, uncovering and resolving misconfigurations in real time. This enables you to take immediate action on security threats and proactively improve your cloud security posture.

Cloud Configuration Findings [Learn about Cloud Configuration](#)

Rule Severity Cloud Platform is Amazon Web Services Resource Type Status Subscription 10,000+ findings

More Filters Clear

Cloud Configuration Finding	Resource	Status	Severity	Risks	Subscription
IAM Role should not allow all principals to assume IAM-145	test-app-AaAaBbBbCcCc... Service Account	Passed			*****
Source AMI Snapshot should be encrypted VPC-042	acme.com_04-gp2 Virtual Machine Image	Passed			*****
IAM Role policy should not allow PassRole permission across all... IAM-145	wiz-demo-infra-load-bala... Service Account	Passed			*****
Security Group should restrict SSH access (TCP - port 22) VPC-015	wiz-demo-infra_default... Firewall	Unresolved			*****
AWS region should have EBS encryption enabled EBS-004	af-south-1 (123456789012) Region	Unresolved			*****
AWS region should have EBS encryption enabled EBS-004	eu-north-1 (123456789012) Region	Unresolved			*****

Table of contents

TL;DR

What is CSPM?

What is DSPM?

CSPM vs DSPM: How do they compare?

How to choose?

A holistic, all-in-one security experience

Comparing other cloud security solutions

See Wiz in Action

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CSPM gives you a clear risk assessment of your cloud security posture across all providers. Why is this beneficial? CSPM offers you:

- Streamlined management with integrated cloud vulnerability and misconfiguration scanning
- Reduced risk and improved compliance through automated security policy enforcement
- Improved response time thanks to real-time monitoring and immediate alerts

CSPM frees up your security team by automating routine tasks and simplifying remediation. It helps ensure compliance with regulations by checking your cloud setup against industry standards and empowers better collaboration and reporting. It also helps enforce uniform policies that meet security requirements and block unauthorized access.

CSPM solutions are designed to work in modern cloud environments, but some may need extra software, such as agents, to be installed; others work with native cloud security for ease of rollout across your organization.



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Table of contents

TL;DR

What is CSPM?

What is DSPM?

CSPM vs DSPM: How do they compare?

How to choose?

A holistic, all-in-one security experience

Comparing other cloud security solutions

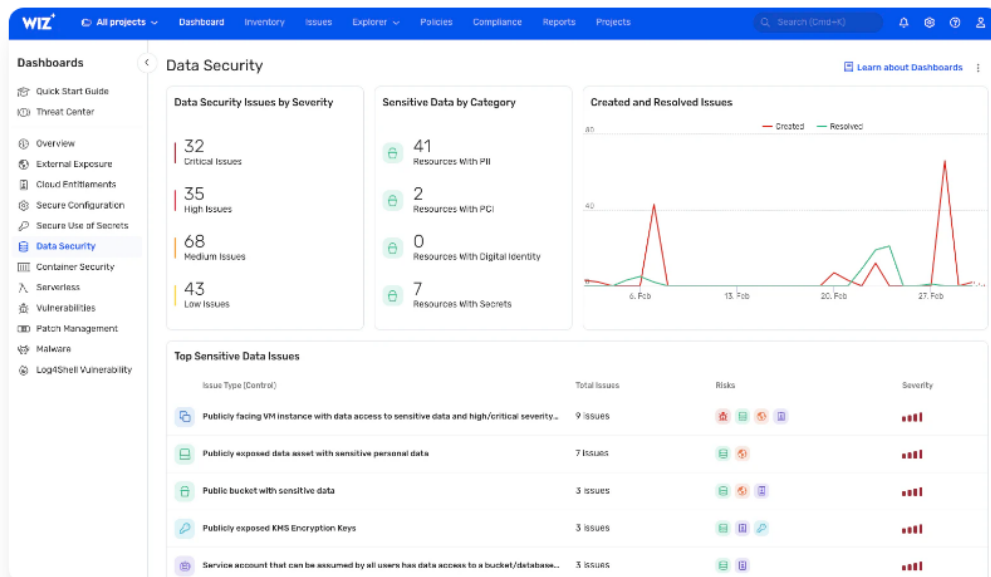
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What is DSPM?

[Data security posture management](#) (DSPM) focuses on finding and securing sensitive data across your network and cloud environments. DSPM identifies and fixes weaknesses like misconfigurations and excessive permissions that could lead to a data breach.



- Data loss prevention through access monitoring and enforcement of encryption and backups
- [Reduced attack surface](#) by closing entry points and vulnerabilities
- Faster incident response through ongoing data security metric monitoring (e.g., access attempts, volume of data exposed)
- Simplified regulatory [cloud compliance](#) (GDPR, HIPAA, etc.) thanks to visibility and policy enforcement

DSPM can protect you from costly data breaches; plus, it simplifies regulatory compliance by proactively managing data security. It can also help you follow best practices for your data, like enforcing least privilege and other access control models, so that users only have access to the data they need to do their job, cutting risk overall.



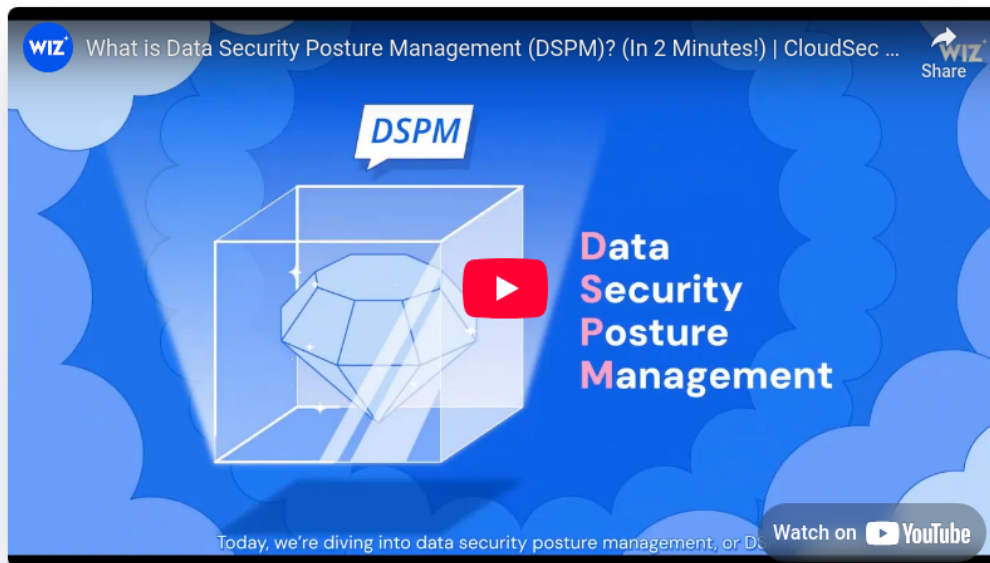


Table of contents

TL;DR

What is CSPM?

What is DSPM?

CSPM vs DSPM: How do they compare?

How to choose?

A holistic, all-in-one security experience

Comparing other cloud security solutions

See Wiz in Action

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CSPM vs DSPM: How do they compare?

How do CSPM and DSPM stack up against security challenges in the real world? Let's take a look.

Feature	CSPM	DSPM
Focus	Overall cloud security posture	Protecting sensitive data
Major strength	Continuous monitoring and misconfiguration detection	Identifying and securing sensitive data across environments
What it can't do	Directly protect individual data points	Secure the entire cloud environment
Best for	Organizations with complex cloud environments and/or compliance needs (e.g., PCI-DSS for processing payments)	Organizations with large amounts of sensitive data, organizations in highly regulated industries (e.g., healthcare, finance)
Typical protection scenario	CSPM at a retail company detects that an S3 bucket storing customer purchase history has public access enabled. This misconfiguration could allow anyone to access sensitive customer data. CSPM alerts the security team, who can then restrict access to those S3 storage buckets.	DSPM at a healthcare provider discovers that a large amount of patient data is stored on a cloud server without proper encryption. This unknown "shadow data" poses a significant security risk. DSPM alerts security, identifies the data, pinpoints its location, and helps implement risk-remediation steps.

The Forrester Wave™: Cloud Workload Security, Q1 2024



The Forrester Wave™: Cloud Workload Security, Q1 2024

Learn why Forrester placed Wiz highest on current offering and named a Strong Performer.

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Table of contents

TL;DR

What is CSPM?

What is DSPM?

CSPM vs DSPM: How do they compare?

How to choose?

A holistic, all-in-one security experience

Comparing other cloud security solutions

See Wiz in Action

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How to choose?

- **CSPM** ensures cloud infrastructure security by identifying misconfigurations and identity issues. **This is essential for organizations with complex cloud environments and compliance requirements.**
- **DSPM** prioritizes data security by identifying data-targeted vulnerabilities and enforcing security policies. **This is essential for organizations with large amounts of sensitive data and those in regulated industries.**

But you don't have to choose one approach or the other. Both CSPM and DSPM are essential for comprehensive cybersecurity, [complementing one another](#) to provide tighter, more effective security controls overall.

Still, you need to be careful. No organization wants to adopt too many security tools, as each one introduces a new interface and learning curve. Plus, a "patchwork" solution made up of a variety of tools that do one thing or another creates complexity for your team and leads to disjointed security management.

Instead of having to choose between a CSPM tool and a DSPM tool, consider a comprehensive approach that lets you create and enforce cloud security and data policies, along with other security measures. This will also provide visibility into your entire security posture across all your clouds, both public cloud and private.

A [cloud native application protection platform \(CNAPP\)](#) brings together CSPM and DSPM with other security approaches, like cloud infrastructure entitlement management (CIEM) and cloud workload protection (CWP), within a single interface for streamlined, all-in-one usability.

A comprehensive CNAPP platform cuts complexity, giving you a single [centralized management console that integrates all your security tools](#). This reduced complexity makes security easier for your team and can also help improve their efficiency if the CNAPP includes automation capabilities for common, time-consuming workflows. And with clear visibility across all your clouds, you'll also achieve better detection of security threats across all attack vectors.

2024 Gartner® Market Guide for



2024 Gartner® Market Guide for Cloud-Native Application Protection Platforms (CNAPP)

In this report, Gartner offers insights and recommendations to analyze and evaluate emerging CNAPP offerings.

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Table of contents

TL;DR

What is CSPM?

What is DSPM?

CSPM vs DSPM: How do they compare?

How to choose?

A holistic, all-in-one security experience

Comparing other cloud security solutions

A holistic, all-in-one security experience

Not all CNAPPs are alike, so you need to weigh your options carefully. Some CNAPP solutions don't yet include DSPM.

Remember, while CSPM focuses on cloud infrastructure, DSPM targets data security vulnerabilities. Choosing a CNAPP that incorporates both CSPM and DSPM gives you the best of both approaches for holistic security coverage.

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- [CNAPP vs CSPM](#)
- [CIEM vs CSPM](#)
- [CSPM vs CWPP](#)
- [CSPM vs SSPM](#)



- [CIEM vs CSPM](#)
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Data Security in the Cloud

- [What is Cloud Data Security? Risks and Best Practices >](#)
- [What is a Data Risk Assessment? >](#)
- [What is Data Security Posture Management \(DSPM\)? >](#)
- [13 Essential Data Security Best Practices in the Cloud >](#)
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Compliance

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Assessment >

- What is CNAPP? [Cloud-Native Application Protection Platform] >
- What is CSPM? >

- Vulnerability Management Best Practices >
- Vulnerability Prioritization in the Cloud: Strategies + Steps >
- Risk-Based Vulnerability Management >
- Top OSS vulnerability management tools >

- 13 Essential AWS IAM Best Practices >
- CIEM vs. IAM >
- Identity Security [Cloud Edition] >
- What is the Principle of Least Privilege (PoLP)? Use Cases, Benefits, and Implementation >

Data Security in the Cloud

- What is Cloud Data Security? Risks and Best Practices >
- What is a Data Risk Assessment? >
- What is Data Security Posture Management (DSPM)? >
- 13 Essential Data Security Best Practices in the Cloud >
- Sensitive Data Discovery >
- Data Leakage: Risks, Causes, & Prevention >
- What are Data Security Controls? >

Cloud Service Provider Security

- Top 9 AWS Security Tools in 2025: Features and Limitations >
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- Native Azure Security Tools >
- Azure Security Risks & Mitigation Steps >
- AWS Security Risks >
- Google Cloud Security Best Practices >
- Top Google Cloud Security Tools [By Use Case] >

Compliance

- What is NIST Compliance? >
- What is Cloud Compliance? >
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