# Cloud Native Application Protection Platform

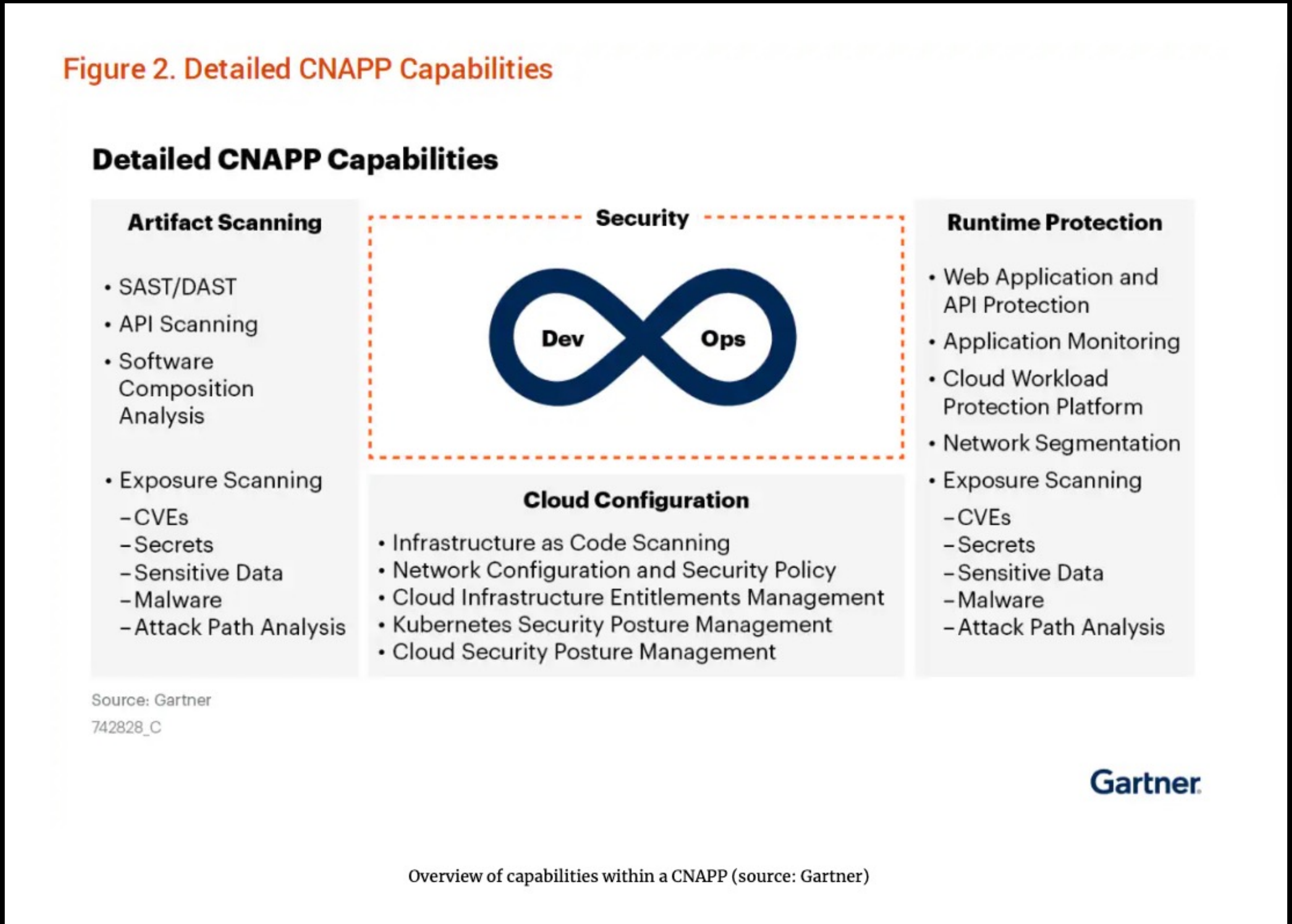

Figure 2. Detailed CNAPP Capabilities

## Detailed CNAPP Capabilities

**Artifact Scanning**

- SAST/DAST
- API Scanning
- Software Composition Analysis
- Exposure Scanning
  - CVEs
  - Secrets
  - Sensitive Data
  - Malware
  - Attack Path Analysis

**Security**

**Cloud Configuration**

- Infrastructure as Code Scanning
- Network Configuration and Security Policy
- Cloud Infrastructure Entitlements Management
- Kubernetes Security Posture Management
- Cloud Security Posture Management

**Runtime Protection**

- Web Application and API Protection
- Application Monitoring
- Cloud Workload Protection Platform
- Network Segmentation
- Exposure Scanning
  - CVEs
  - Secrets
  - Sensitive Data
  - Malware
  - Attack Path Analysis

Source: Gartner
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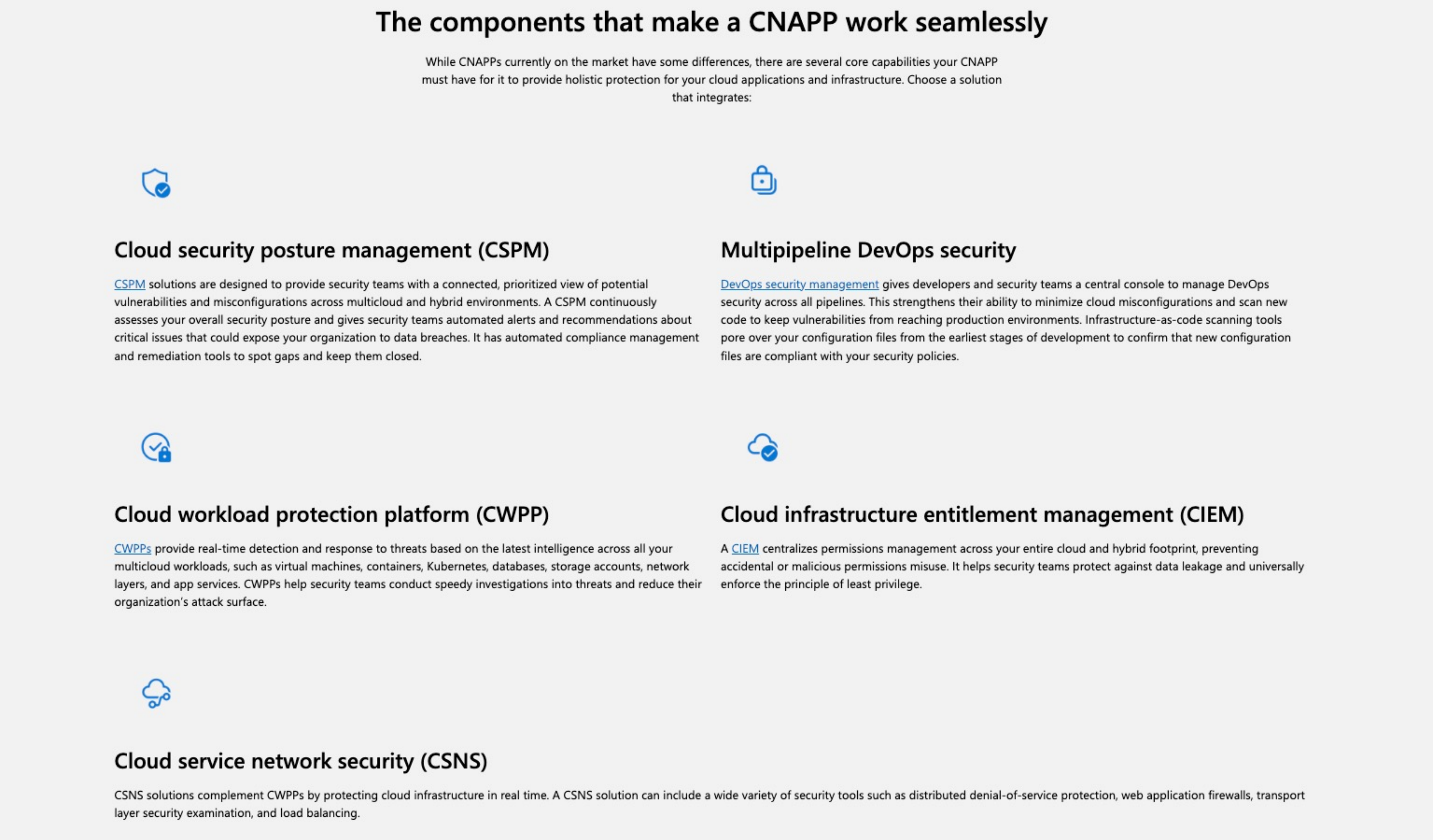
Gartner

Overview of capabilities within a CNAPP (source: Gartner)

[Get to Know Cloud Native Application Protection Platforms (paloaltonetworks.com)]



## The components that make a CNAPP work seamlessly

While CNAPPs currently on the market have some differences, there are several core capabilities your CNAPP must have for it to provide holistic protection for your cloud applications and infrastructure. Choose a solution that integrates:

### Cloud security posture management (CSPM)

CSPM solutions are designed to provide security teams with a connected, prioritized view of potential vulnerabilities and misconfigurations across multicloud and hybrid environments. A CSPM continuously assesses your overall security posture and gives security teams automated alerts and recommendations about critical issues that could expose your organization to data breaches. It has automated compliance management and remediation tools to spot gaps and keep them closed.

### Multipipeline DevOps security

DevOps security management gives developers and security teams a central console to manage DevOps security across all pipelines. This strengthens their ability to minimize cloud misconfigurations and scan new code to keep vulnerabilities from reaching production environments. Infrastructure-as-code scanning tools pore over your configuration files from the earliest stages of development to confirm that new configuration files are compliant with your security policies.

### Cloud workload protection platform (CWPP)

CWPPs provide real-time detection and response to threats based on the latest intelligence across all your multicloud workloads, such as virtual machines, containers, Kubernetes, databases, storage accounts, network layers, and app services. CWPPs help security teams conduct speedy investigations into threats and reduce their organization's attack surface.

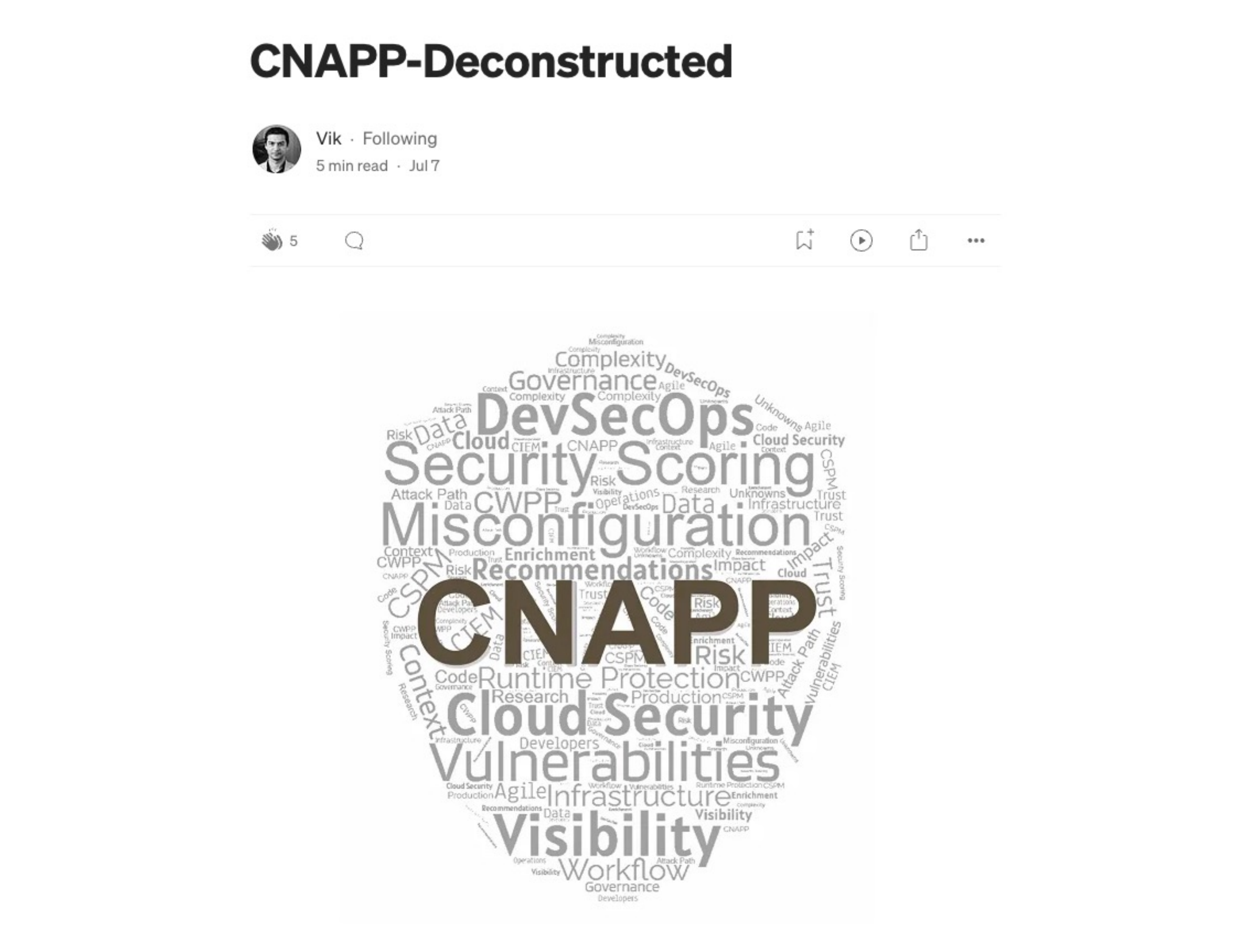
### Cloud infrastructure entitlement management (CIEM)

A CIEM centralizes permissions management across your entire cloud and hybrid footprint, preventing accidental or malicious permissions misuse. It helps security teams protect against data leakage and universally enforce the principle of least privilege.

### Cloud service network security (CSNS)

CSNS solutions complement CWPPs by protecting cloud infrastructure in real time. A CSNS solution can include a wide variety of security tools such as distributed denial-of-service protection, web application firewalls, transport layer security examination, and load balancing.

What Is a CNAPP? | Microsoft Security

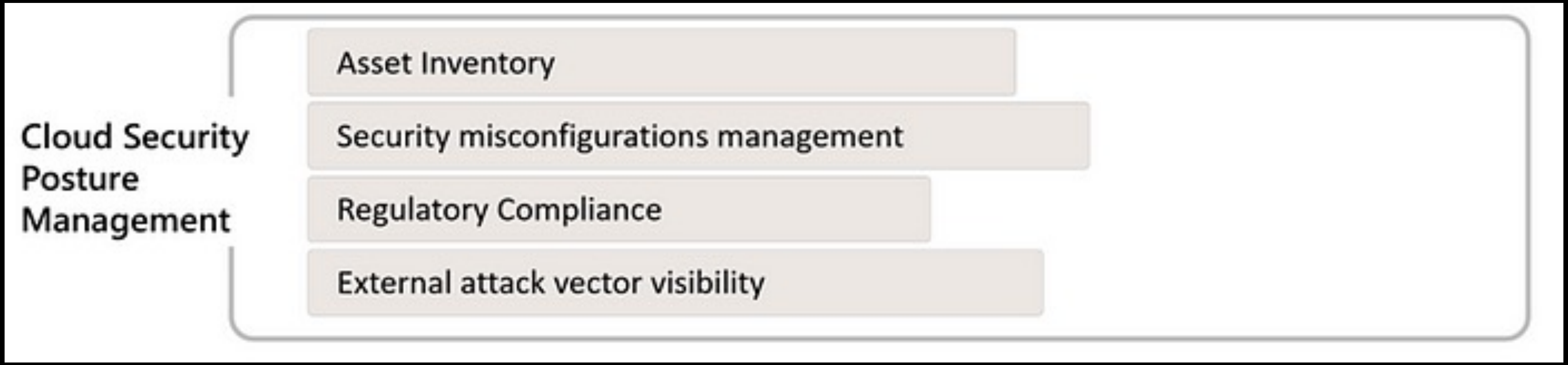


# CNAPP-Deconstructed

Vik · Following

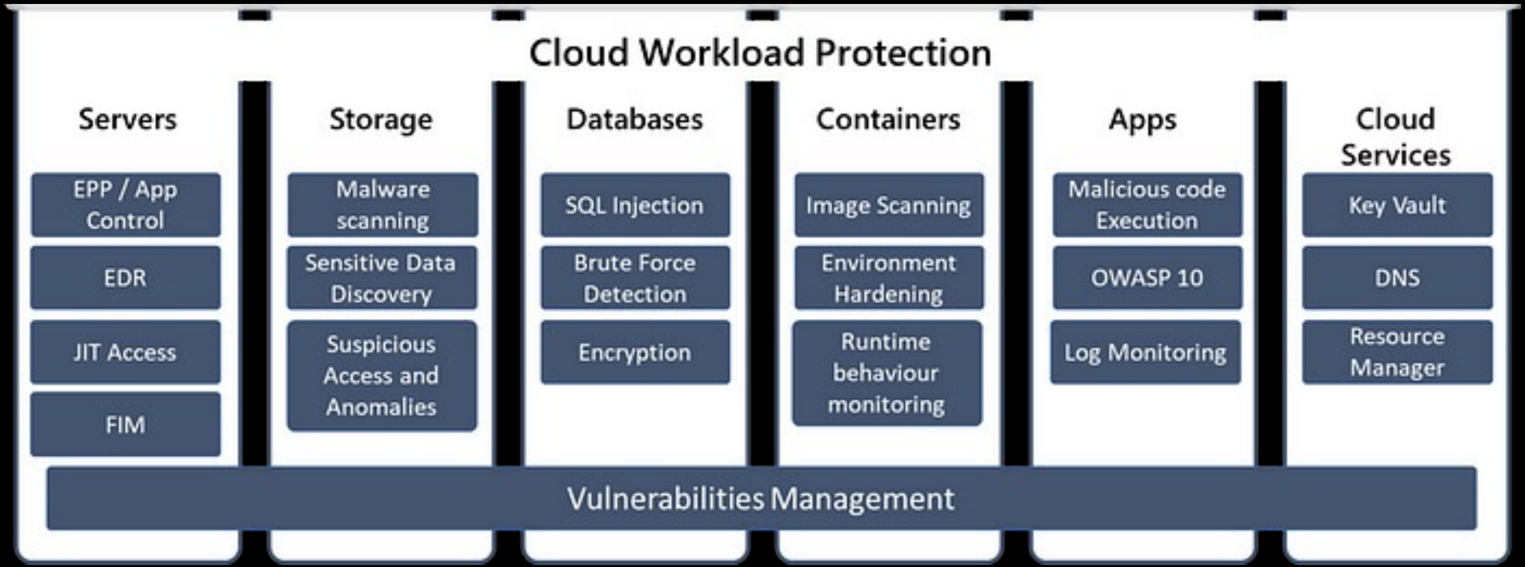
5 min read · Jul 7

[CNAPP-Deconstructed. The current state of cloud security | by Vik | Medium]()



Cloud Security Posture Management

- Asset Inventory
- Security misconfigurations management
- Regulatory Compliance
- External attack vector visibility



Cloud Workload Protection

| Servers | Storage | Databases | Containers | Apps | Cloud Services |
|---|---|---|---|---|---|
| EPP / App Control | Malware scanning | SQL Injection | Image Scanning | Malicious code Execution | Key Vault |
| EDR | Sensitive Data Discovery | Brute Force Detection | Environment Hardening | OWASP 10 | DNS |
| JIT Access | Suspicious Access and Anomalies | Encryption | Runtime behaviour monitoring | Log Monitoring | Resource Manager |
| FIM | | | | | |

Vulnerabilities Management

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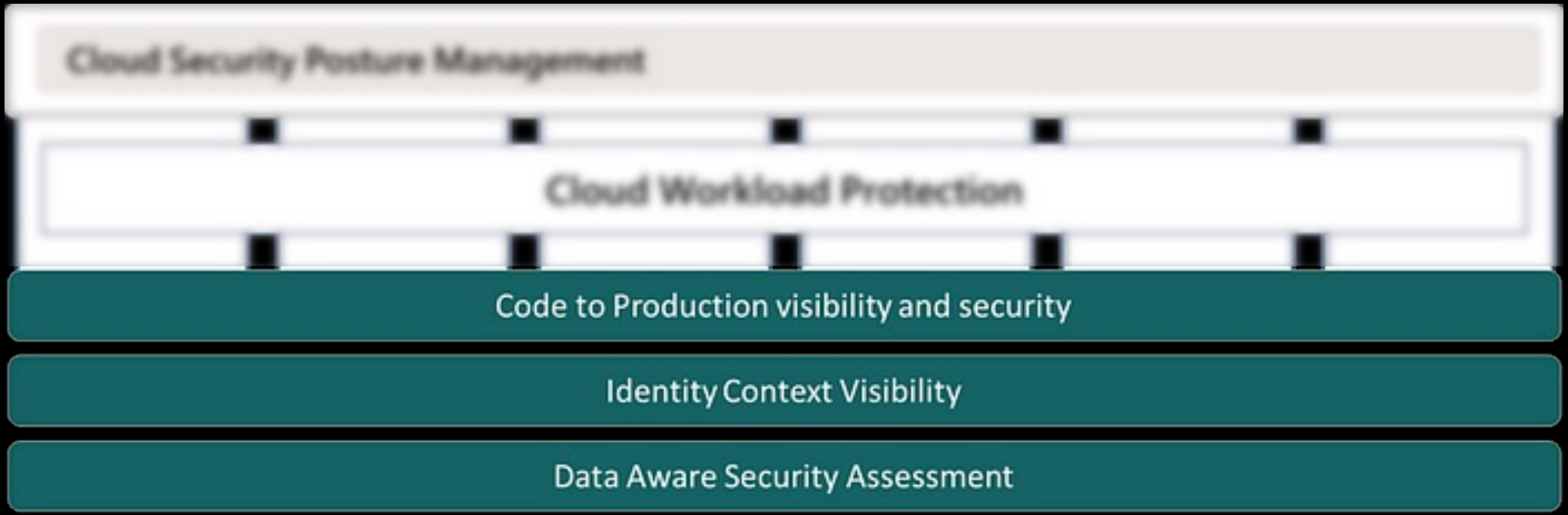

Cloud Security Posture Management

Cloud Workload Protection

Code to Production visibility and security

Identity Context Visibility

Data Aware Security Assessment

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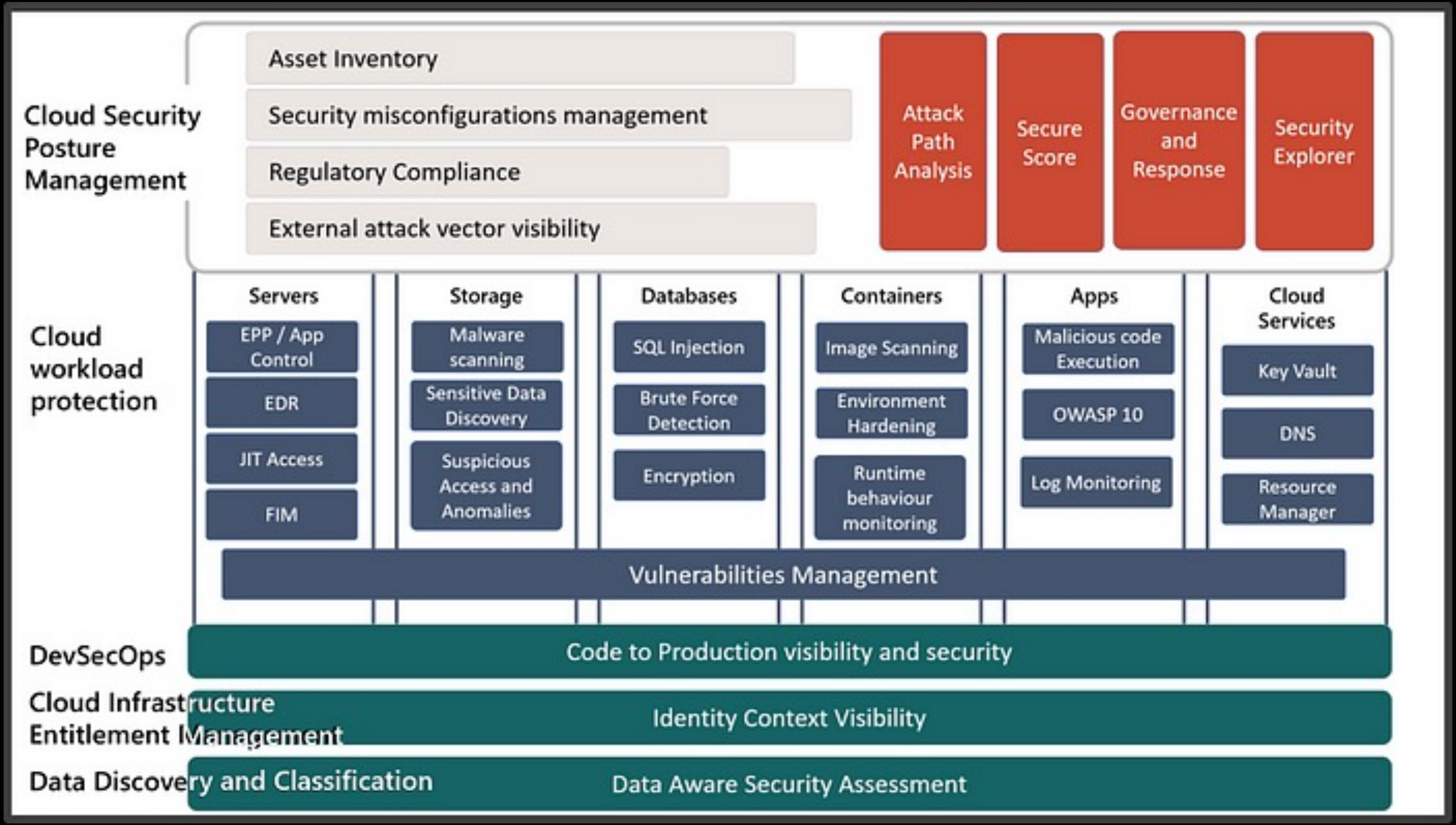

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Attack Path Analysis

Secure Score

Governance and Response

Security Explorer

Cloud workload protection

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Vulnerabilities Management

DevSecOps: Code to Production visibility and security

Cloud Infrastructure Entitlement Management: Identity Context Visibility

Data Discovery and Classification: Data Aware Security Assessment

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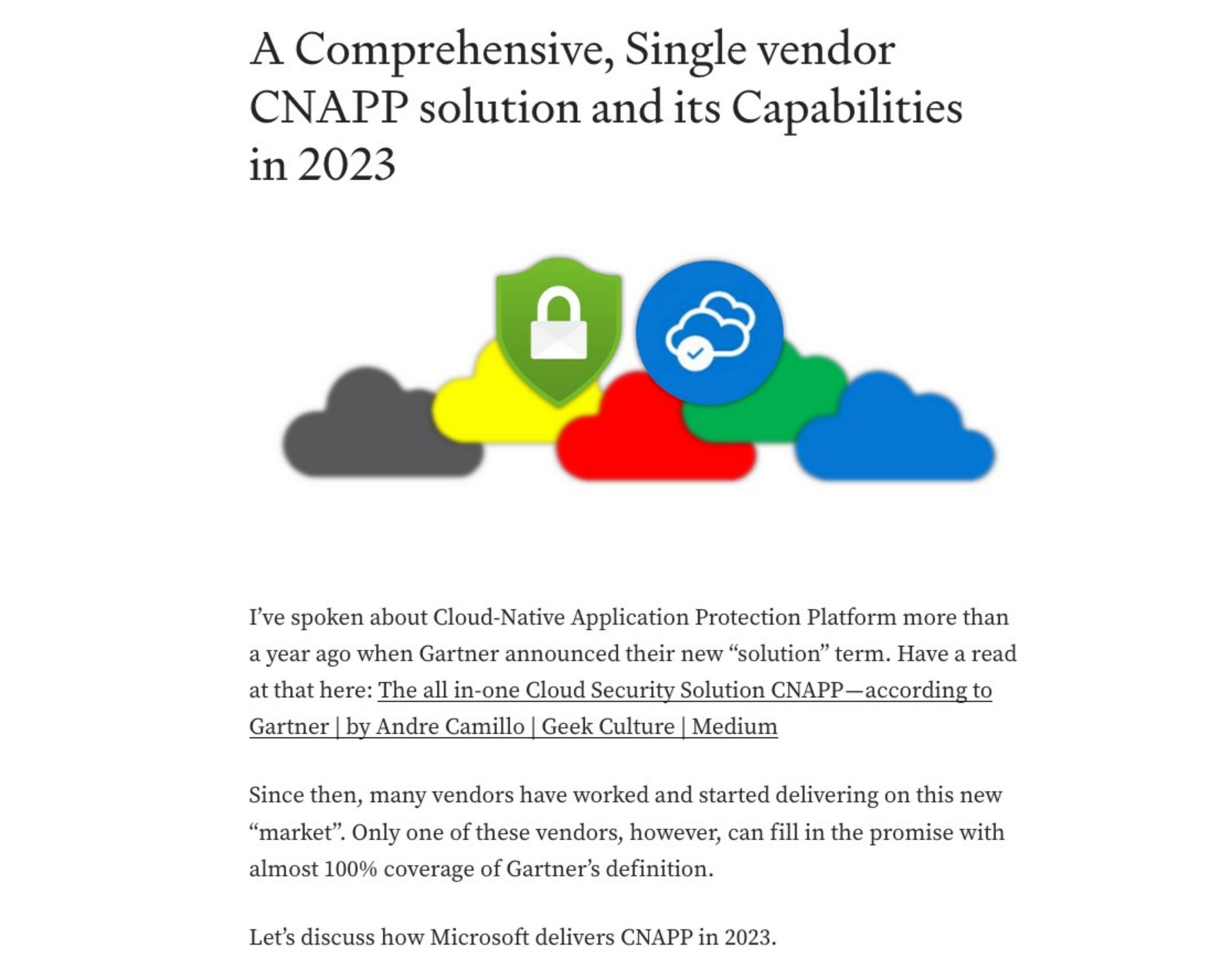


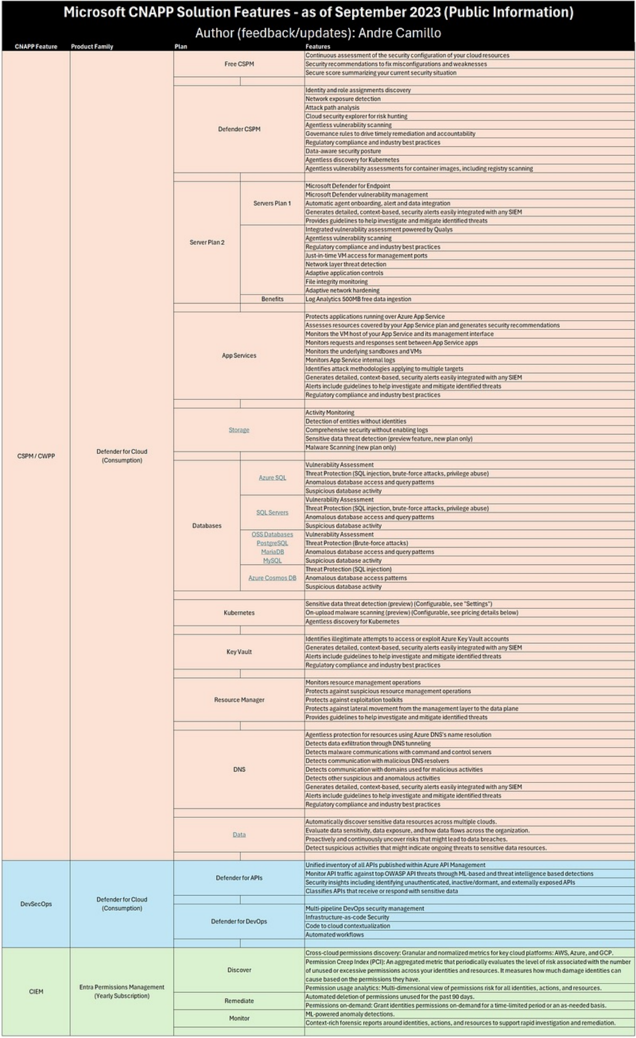
# A Comprehensive, Single vendor CNAPP solution and its Capabilities in 2023

I've spoken about Cloud-Native Application Protection Platform more than a year ago when Gartner announced their new "solution" term. Have a read at that here: The all in-one Cloud Security Solution CNAPP—according to Gartner | by Andre Camillo | Geek Culture | Medium

Since then, many vendors have worked and started delivering on this new "market". Only one of these vendors, however, can fill in the promise with almost 100% coverage of Gartner's definition.

Let's discuss how Microsoft delivers CNAPP in 2023.

Andre Camillo – Medium



## Microsoft CNAPP Solution Features - as of September 2023 (Public Information)

Author (feedback/updates): Andre Camillo

| CNAPP Feature | Product Family | Plan | | Features |
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| CSPM / CWPP | Defender for Cloud (Consumption) | Free CSPM | | Continuous assessment of the security configuration of your cloud resources |
| | | | | Security recommendations to fix misconfigurations and weaknesses |
| | | | | Secure score summarizing your current security situation |
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| | | | | Cloud security explorer for risk hunting |
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| | | Kubernetes | | Sensitive data threat detection (preview) (Configurable, see "Settings") |
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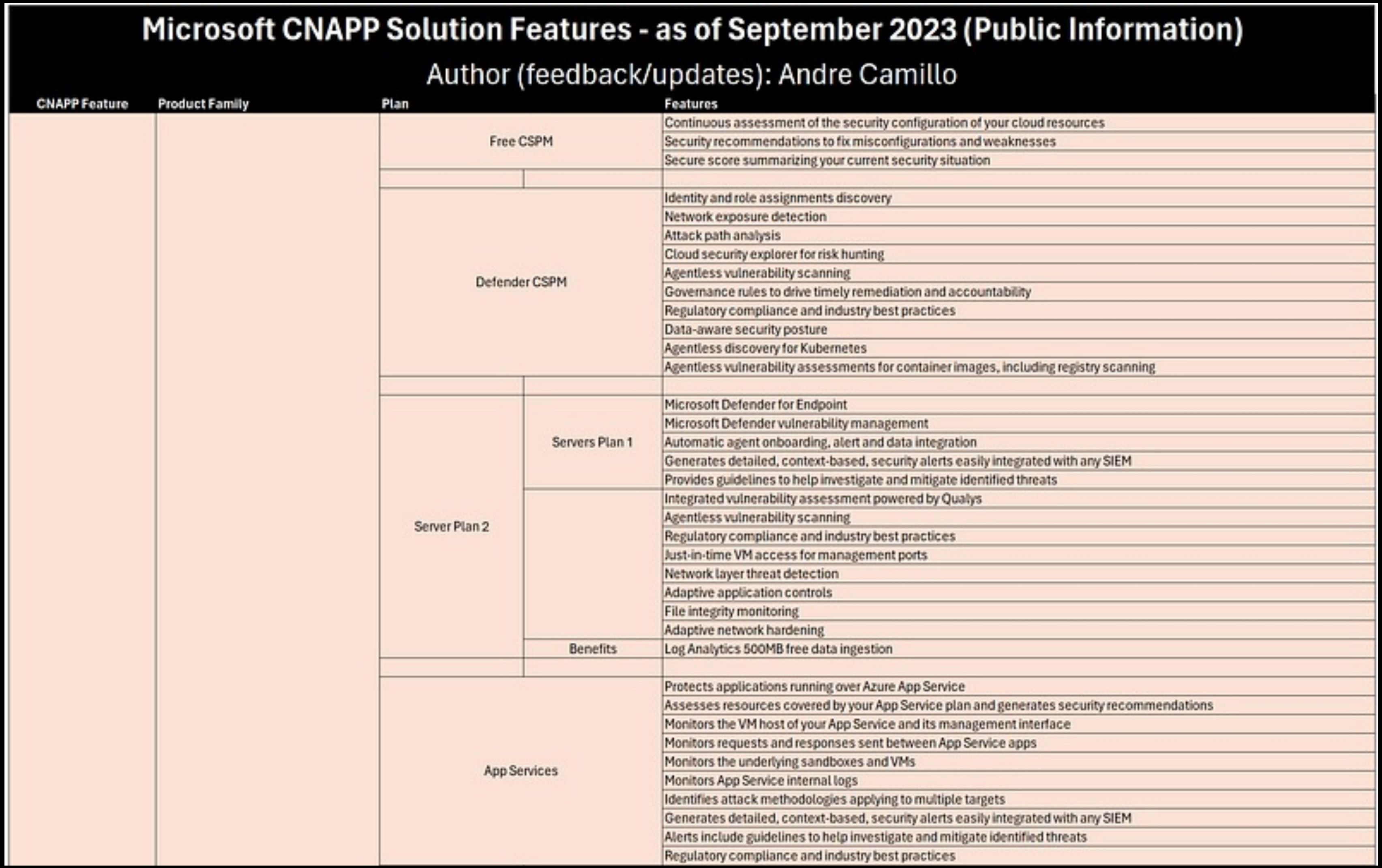

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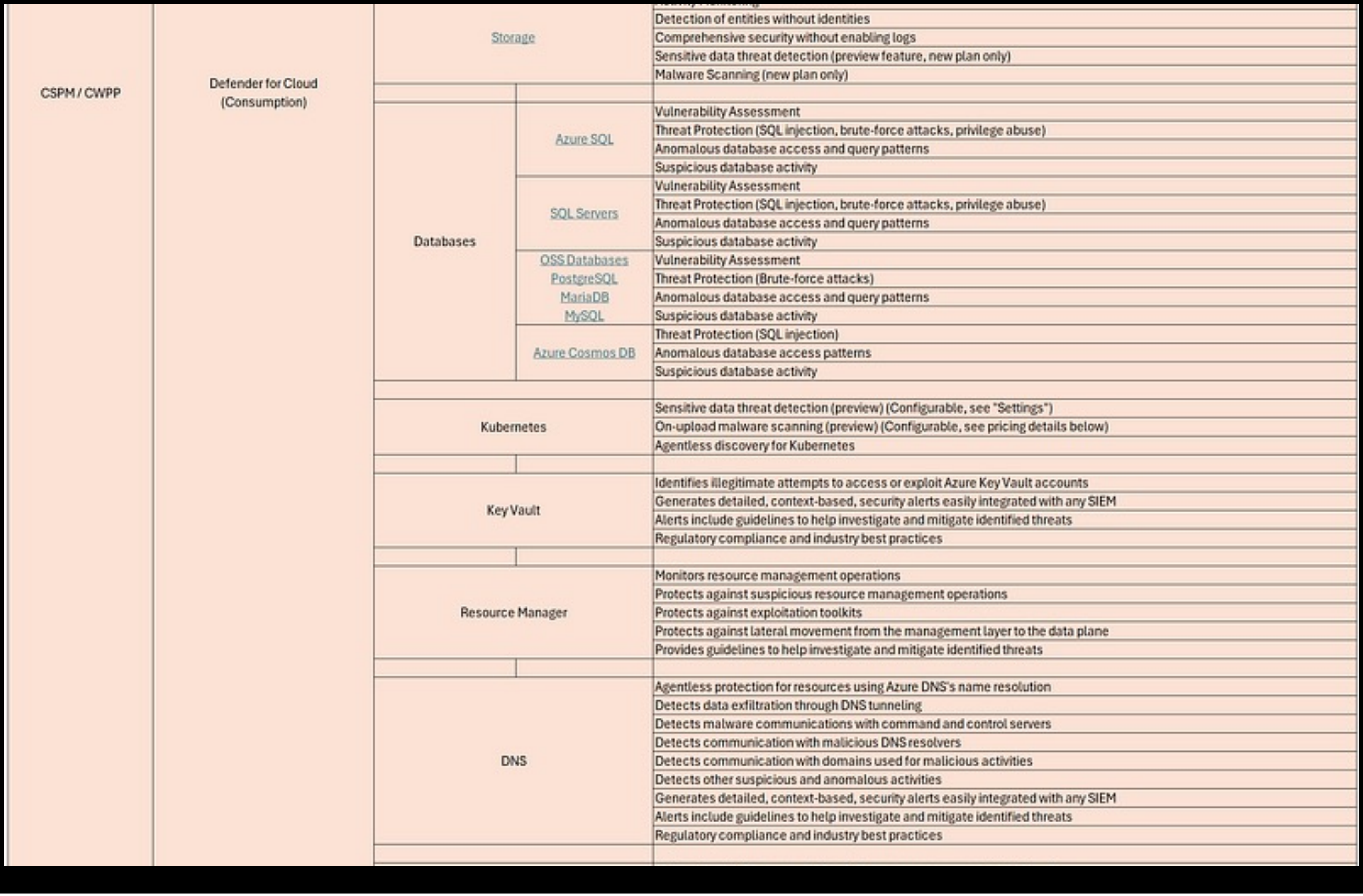

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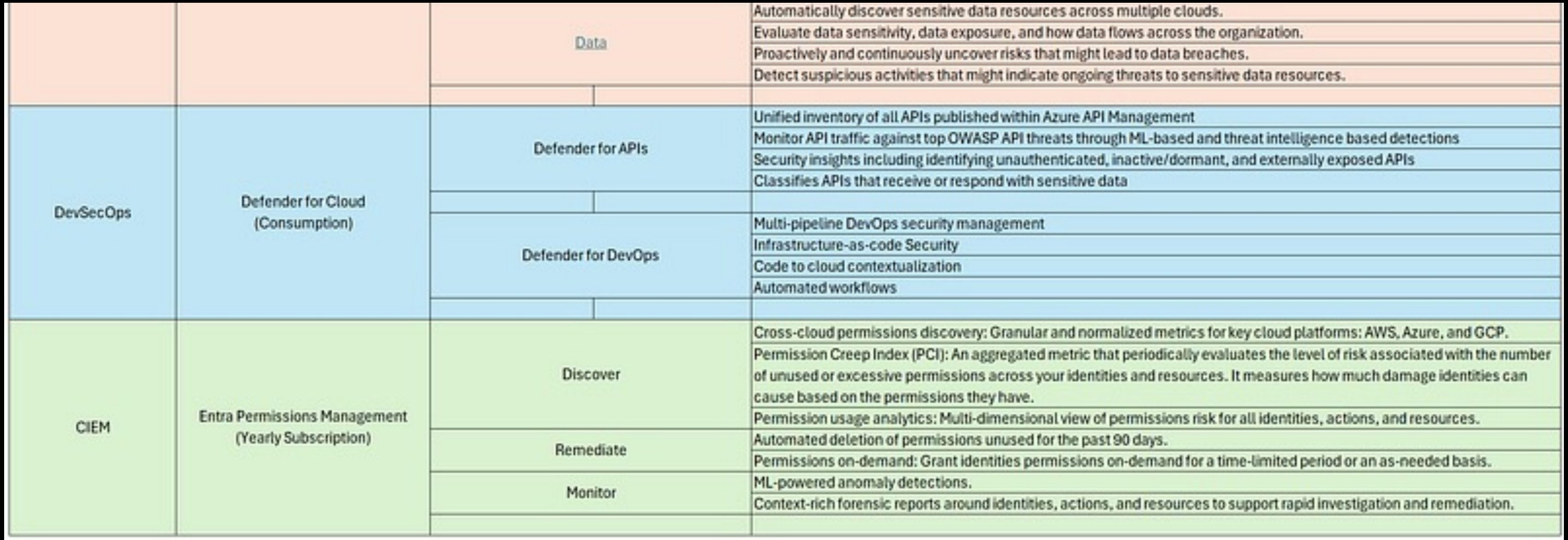

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