

Elevate Your Cloud Security Posture with Microsoft Defender for Cloud

- CSPM
- Secure Score
- Regulatory Compliance
- Workload Protection

The image shows the Microsoft Azure Microsoft Defender for Cloud Overview page. The page displays a summary of security status with metrics: 1 Azure subscription, 1 Assessed resources, 97 Security alerts, 0 Critical recommendations, 0 Attack paths, and 0 Overdue recommendations. It also shows a 100% total secure score across Azure, AWS, and GCP. The page is branded with a Microsoft Certified Expert badge featuring three stars.

Microsoft Azure

Microsoft Defender for Cloud | Overview

Showing subscription 'Azure subscription 1'

Search

Subscriptions | What's new

General

- Overview
- Setup
- Recommendations
- Attack path analysis
- Security alerts
- Inventory
- Cloud Security Explorer
- Workbooks
- Community
- Diagnose and solve problems

Cloud Security

- Security posture
- Regulatory compliance
- Workload protections
- Data and AI security
- Network security
- DevOps security

Management

- Environment settings
- Workflow automation

Microsoft Defender for Cloud | Overview

Showing subscription 'Azure subscription 1'

Subscriptions: 1 Azure subscription

Assessed resources: 1

Attack paths: 97

Security alerts: 97

Security posture

Critical recommendations: 0

Attack paths: 0

Overdue recommendations: 0/0

Environment risk and secure score

All recommendations by risk (4): Critical 0, High 0, Medium 0, Low 0, Not evaluated 4

Total secure score: 100%

Azure 100%, AWS -, GCP -

Explore your security posture >

Workload protections

Regulatory compliance

Microsoft cloud security benchmark: 57 of 63 controls passed

Lowest compliance standards by controls passed

No additional standards are currently monitored.

Open security policies to manage additional compliance standards

Improve your compliance >

Inventory

Perparim Abdullahu | Microsoft Cloud Architect | Azure

Security Architecture | Zero Trust | © PerparimLabs

Microsoft CERTIFIED

EXPERT

PerparimLabs

What Is Cloud Security Posture Management (CSPM)?

CSPM helps organizations continuously evaluate and improve their cloud security posture.

Key capabilities:

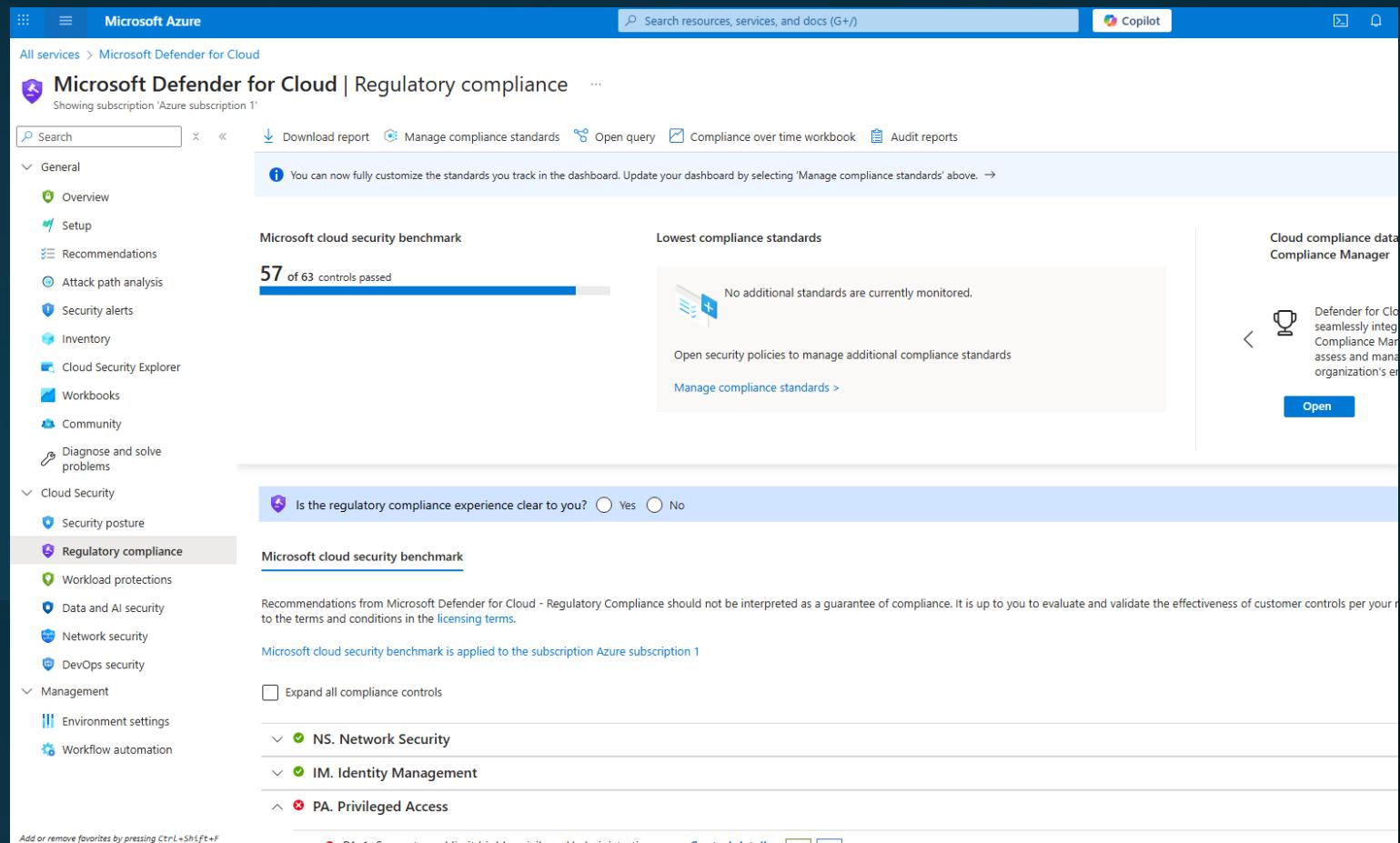
- Detect misconfigurations and security gaps
- Map your environment to standards (NIST, CIS, PCI, ISO)
- Provide actionable recommendations
- Strengthen identity, data, apps & infrastructure security
- Reduce attack paths across workloads

Regulatory Compliance Overview

Microsoft Defender for Cloud includes a **Regulatory Compliance dashboard** showing your security posture against industry frameworks.

You can view:

- Total controls passed vs. controls failed
- Each framework's compliance percentage
- Detailed control-level recommendations
- Required actions to strengthen security



The screenshot shows the Microsoft Azure portal with the Microsoft Defender for Cloud Regulatory Compliance dashboard. The dashboard displays the Microsoft cloud security benchmark, showing 57 of 63 controls passed. It also shows the lowest compliance standards, indicating no additional standards are currently monitored. A poll asks if the regulatory compliance experience is clear, with 'Yes' and 'No' options. The dashboard includes a section for recommendations from Microsoft Defender for Cloud - Regulatory Compliance, stating that the benchmark is applied to the Azure subscription. It also features sections for Network Security, Identity Management, and Privileged Access, with expandable controls for each.



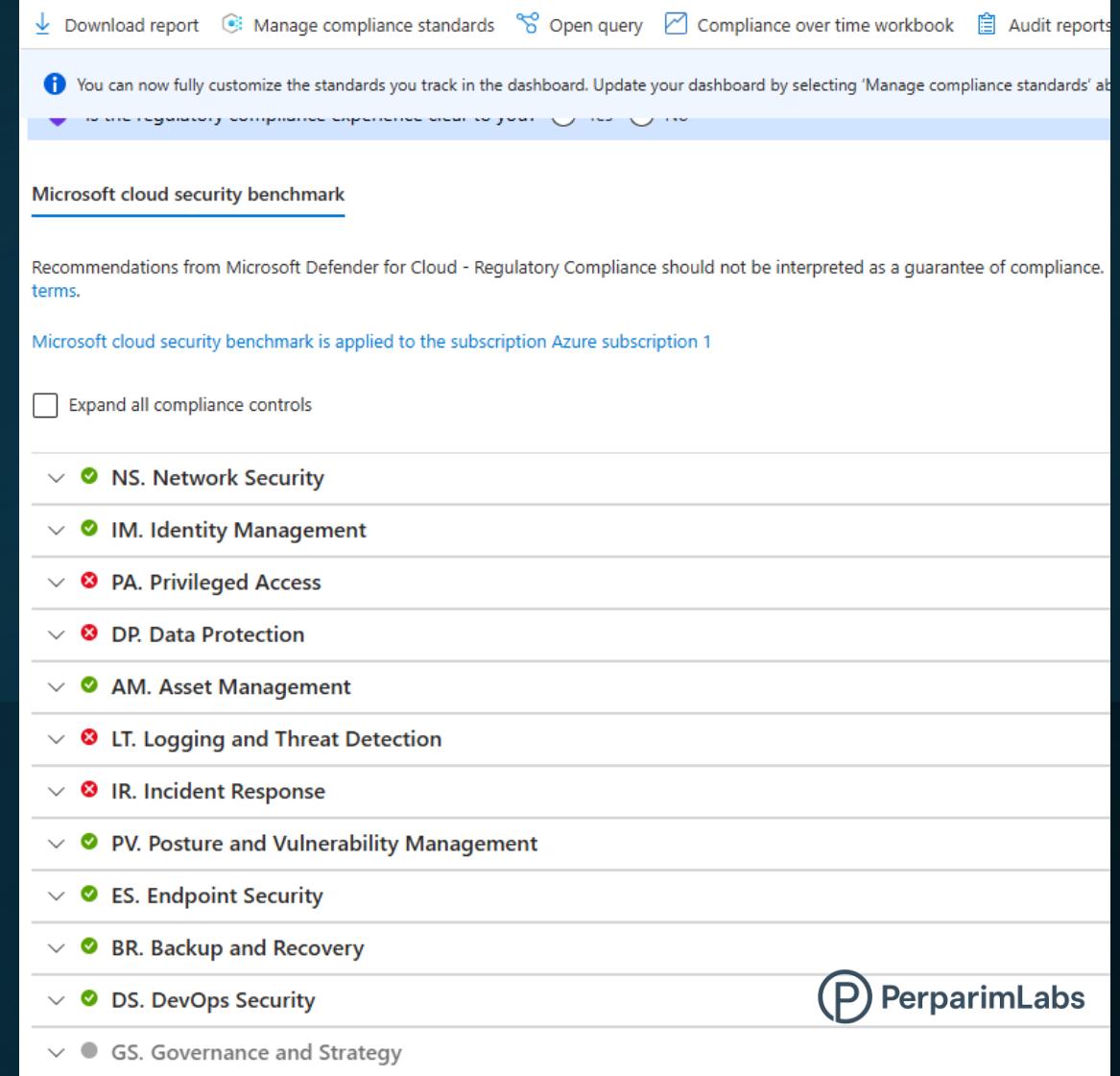
Microsoft Cloud Security Benchmark (MCSB)

MCSB is Microsoft's unified security framework for securing cloud workloads.

MCSB provides:

- A Microsoft-defined baseline for cloud security
- Mapping to NIST, CIS, PCI-DSS, ISO 27001 & more
- Secure-by-default guidance for identity, network, logging, workloads
- A measurable way to evaluate your Azure environment

Regulatory Compliance



The screenshot shows the Microsoft Defender for Cloud - Regulatory Compliance dashboard. At the top, there are buttons for 'Download report', 'Manage compliance standards', 'Open query', 'Compliance over time workbook', and 'Audit reports'. A message indicates that users can now fully customize the standards they track in the dashboard. Below this, a section titled 'Microsoft cloud security benchmark' is shown, with a note that recommendations should not be interpreted as a guarantee of compliance. The 'Microsoft cloud security benchmark' is applied to the subscription 'Azure subscription 1'. A checkbox labeled 'Expand all compliance controls' is present. The benchmark is organized into 14 categories, each with a status indicator (green checkmark for compliant, red X for non-compliant, or grey circle for partially compliant):

- NS. Network Security (Green)
- IM. Identity Management (Green)
- PA. Privileged Access (Red)
- DP. Data Protection (Red)
- AM. Asset Management (Green)
- LT. Logging and Threat Detection (Red)
- IR. Incident Response (Red)
- PV. Posture and Vulnerability Management (Green)
- ES. Endpoint Security (Green)
- BR. Backup and Recovery (Green)
- DS. DevOps Security (Green)
- GS. Governance and Strategy (Grey)

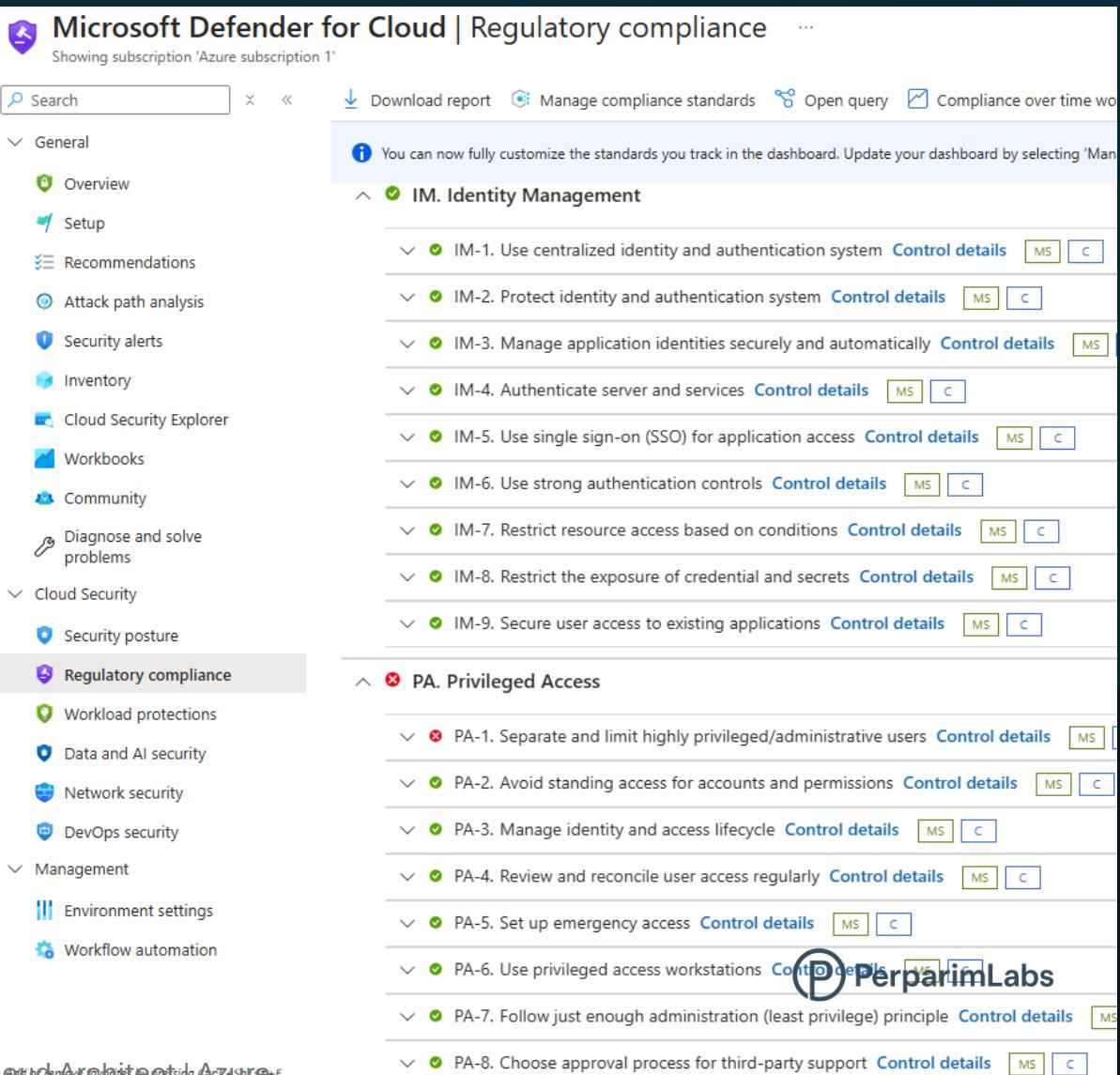
Understanding Benchmark Controls

When expanding an MCSB category, you can view:

- ✓ Controls you meet
- ✓ Controls you fail
- ✓ Control details (evidence, requirements, automated checks)
- ✓ Microsoft actions (auto-/semi-automated in future updates)
- ✓ Manual actions your team must configure

Architect note:

A fresh tenant will naturally fail most controls — this is expected and realistic.

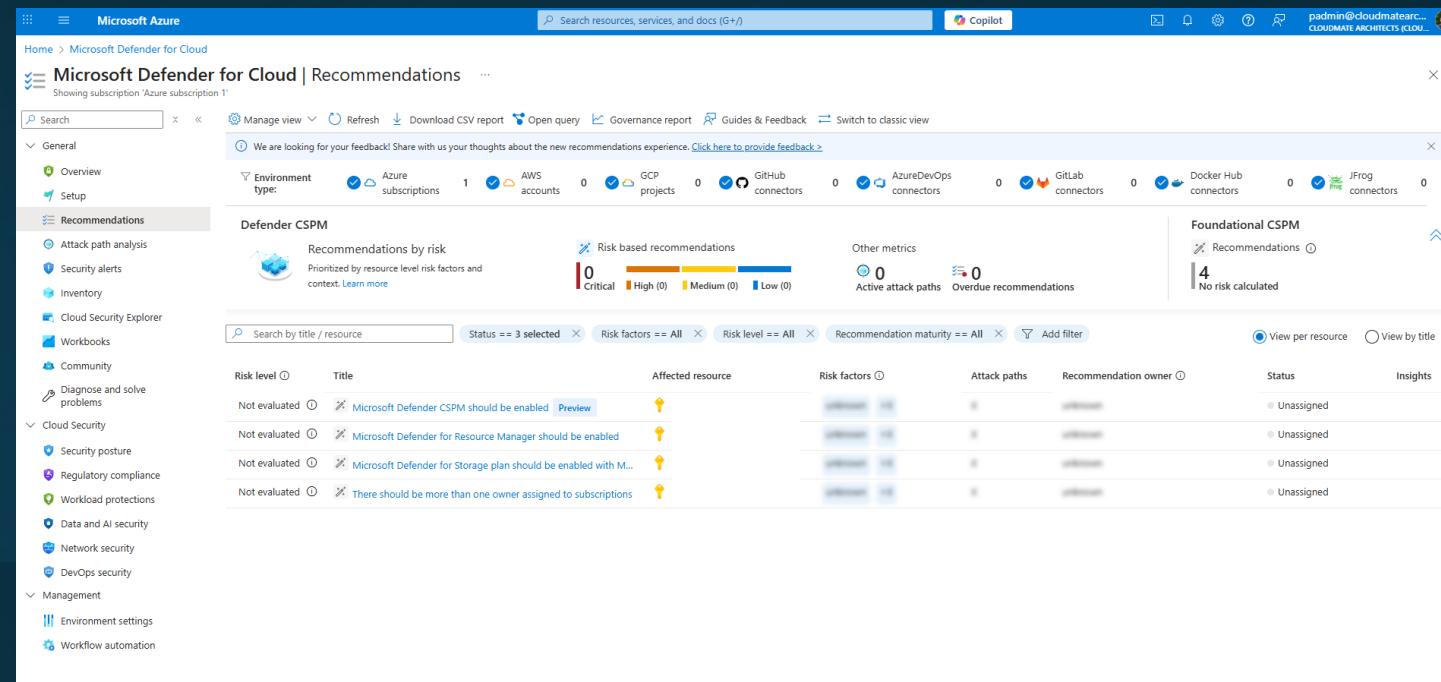


The screenshot shows the Microsoft Defender for Cloud Regulatory compliance dashboard for an Azure subscription. The left sidebar lists categories: General, Cloud Security, and Management. The 'Regulatory compliance' category is selected. The main content area shows the 'IM. Identity Management' section expanded, listing nine controls (IM-1 to IM-9) each with a 'Control details' link and 'MS' and 'C' icons. Below it, the 'PA. Privileged Access' section is partially visible, showing eight controls (PA-1 to PA-8) with similar links and icons. The top of the page includes a search bar, download report, manage compliance standards, open query, and compliance over time buttons.

Strengthening Compliance

Microsoft Defender for Cloud guides you in improving compliance by:

- Showing exactly *what needs fixing*
- Explaining why each control matters
- Providing remediation steps
- Highlighting automated vs. manual actions
- Tracking progress over time



The screenshot shows the Microsoft Defender for Cloud Recommendations page within the Microsoft Azure portal. The page title is "Microsoft Defender for Cloud | Recommendations". The left sidebar includes sections for General (Overview, Setup, Recommendations, Attack path analysis, Security alerts, Inventory, Cloud Security Explorer, Workbooks, Community, Diagnose and solve problems), Cloud Security (Security posture, Regulatory compliance, Workload protections, Data and AI security, Network security, DevOps security), and Management (Environment settings, Workflow automation). The main content area displays "Defender CSPM" recommendations. It features a "Recommendations by risk" section with a risk-based recommendations chart (0 Critical, 0 High, 0 Medium, 0 Low) and a "Prioritized by resource level risk factors and context. Learn more" link. Below this are sections for "Other metrics" (0 Active attack paths, 0 Overdue recommendations) and "Foundational CSPM" (4 recommendations, 0 risk calculated). The main table lists 4 recommendations with columns for Risk level, Title, Affected resource, Risk factors, Attack paths, Recommendation owner, Status, and Insights. Each recommendation includes a preview link and a yellow exclamation mark icon.

Risk level	Title	Affected resource	Risk factors	Attack paths	Recommendation owner	Status	Insights
Not evaluated	Microsoft Defender CSPM should be enabled <small>Preview</small>					Unassigned	
Not evaluated	Microsoft Defender for Resource Manager should be enabled					Unassigned	
Not evaluated	Microsoft Defender for Storage plan should be enabled with M...					Unassigned	
Not evaluated	There should be more than one owner assigned to subscriptions					Unassigned	

Multicloud Compliance

Defender for Cloud supports **Azure, AWS, GCP, GitHub, Azure DevOps**.

Through **Manage Compliance Policies**, you can:

- Add multicloud environments
- Evaluate compliance across all clouds
- Centralize governance into a single pane of glass
- Improve posture consistently across hybrid setups

This is powerful for enterprise and SC-100 architecture.

The screenshot shows the Microsoft Defender for Cloud Environment settings page. The 'Add environment' button is highlighted with a red box. The page displays various compliance and security features:

- ce rules**: expected recommendations
- Data sensitivity**: Set the sensitivity of your organization's resources based on info type or sensitivity labels
- Direct onboarding**: Onboard non-Azure servers directly with Defender for Endpoint
- Integrations**: Create integrations with IT Service Management systems, CI/CD pipelines, and partner security solutions
- Exemptions**: Create exemptions for how policies are applied to your resources
- Resource criticality**: Define your critical assets (resources), to better protect your crown jewels
- Security rules**: Manage your security rules, scopes and conditions to apply organizational security policies

Metrics for various connectors:

- Azure subscriptions: 1
- AWS accounts: 0
- GCP projects: 0
- Github connectors: 0
- AzureDevOps connectors: 0
- GitLab connectors: 0
- Docker Hub: 0
- JFrog: 0

Filtering and sorting options are available at the bottom of the page.

What Is Secure Score?

Secure Score measures how protected your cloud environment is.

Evaluates:

- Identity controls
- Resource configurations
- Data protections
- App security
- Infrastructure posture

A low score in a new tenant is **normal**.

Microsoft Defender for Cloud | Security posture

Showing subscription 'Azure subscription 1'

Secure score: 100% (Total secure score)

Environment risk: 0 Critical recommendations, 0 Attack paths

Governance: Assign ownership and drive recommendations remediation using governance. To create your first rule, click here.

Environment	Owner	Secure score	Unhealthy resources	Attack paths	Recommendations
Azure subscription 1	Azure subscription	100%	1 of 1	0	View recommendations >

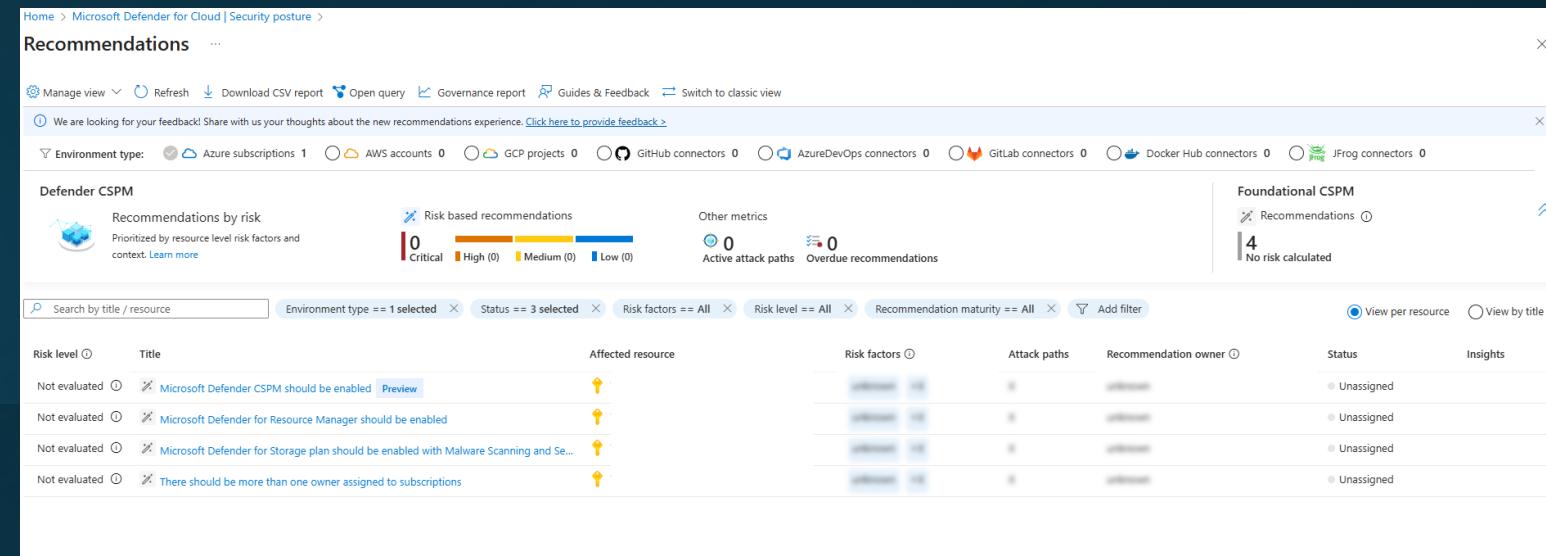
Using Recommendations to Strengthen Security

Each recommendation includes:

- Affected resources
- Impact on Secure Score
- Step-by-step remediation
- Alternative options (exemptions)

Accounts with Owner permissions must have MFA enabled.

Recommendations guide you from misconfiguration → secure posture.



The screenshot shows the Microsoft Defender for Cloud Security posture recommendations page. The top navigation bar includes links for Home, Microsoft Defender for Cloud, Security posture, Manage view, Refresh, Download CSV report, Open query, Governance report, Guides & Feedback, and Switch to classic view. A feedback message encourages users to provide feedback about the new recommendations experience. The main content area is titled 'Recommendations' and displays various metrics and filters. The 'Defender CSPM' section shows 'Recommendations by risk' (Prioritized by resource level risk factors and context), 'Risk based recommendations' (0 Critical, 0 High, 0 Medium, 0 Low), and 'Other metrics' (0 Active attack paths, 0 Overdue recommendations). The 'Foundational CSPM' section shows 'Recommendations' (4) and 'No risk calculated'. Below these are search and filter options, and a table of recommendations. The table columns include: Risk level, Title, Affected resource, Risk factors, Attack paths, Recommendation owner, Status, and Insights. Each row represents a recommendation with a status of 'Not evaluated' and a yellow key icon. The table also includes a 'Preview' link for the first recommendation.

Security Improvement View

Defender for Cloud → Recommendations

You should now see:

The warning “**There should be more than one owner assigned to subscriptions**”

Home > Recommendations > **There should be more than one owner assigned to subscriptions** ...

Open query View policy definition View recommendation for all resources

Not evaluated	Resource	Unassigned
Risk level ⓘ	Resource	Status

Description
Designate more than one subscription owner in order to have administrator access redundancy.

General details

Scope Azure subscription 1	Ticket ID
Last change date 2025	Freshness 24 Hours
Attack Paths 0	

Risk

Governance

Tactics & techniques

Was this recommendation useful? Yes No

Take action Graph

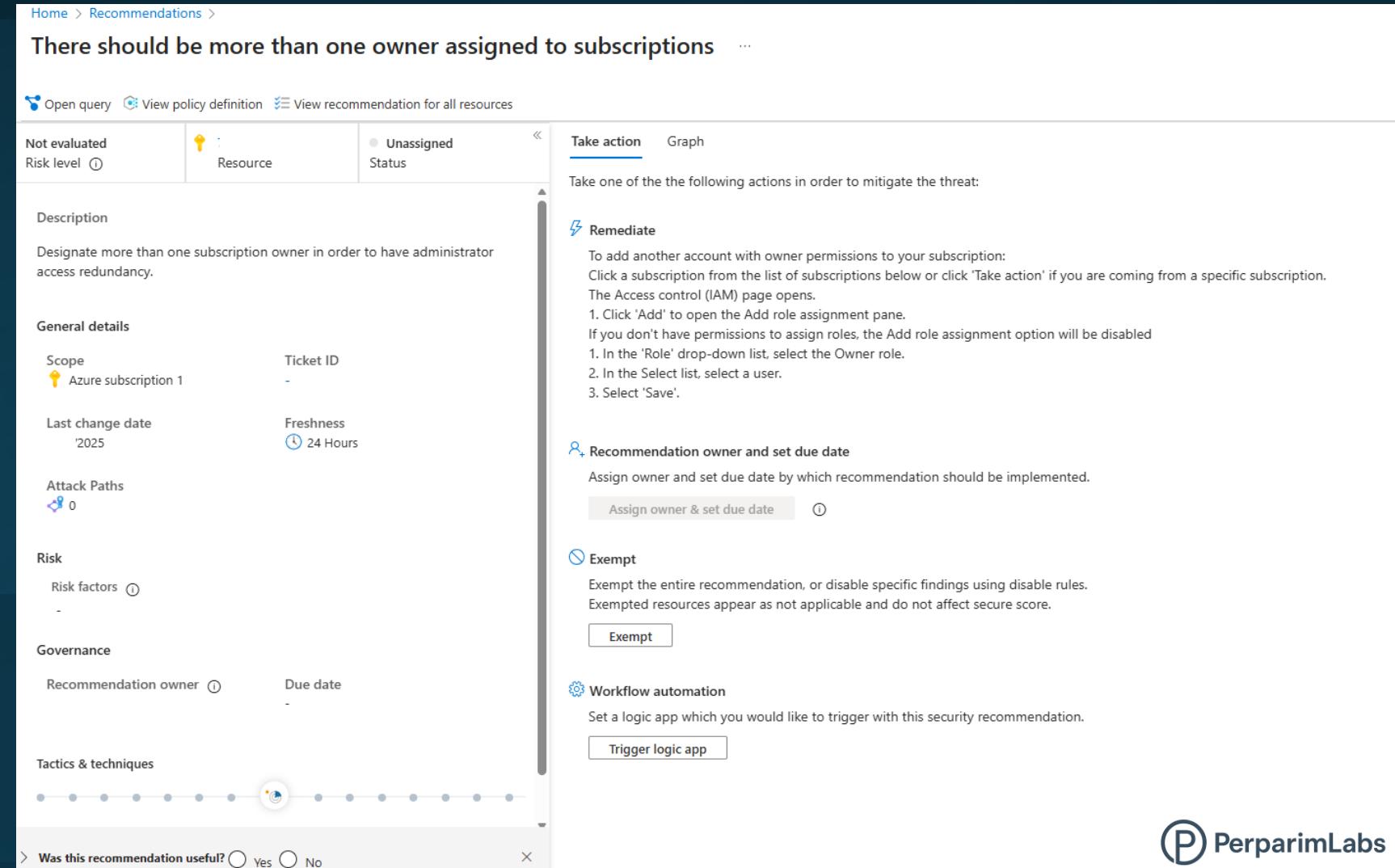
Take one of the the following actions in order to mitigate the threat:

Remediate
To add another account with owner permissions to your subscription:
Click a subscription from the list of subscriptions below or click 'Take action' if you are coming from a specific subscription.
The Access control (IAM) page opens.
1. Click 'Add' to open the Add role assignment pane.
If you don't have permissions to assign roles, the Add role assignment option will be disabled
1. In the 'Role' drop-down list, select the Owner role.
2. In the Select list, select a user.
3. Select 'Save'.

Recommendation owner and set due date
Assign owner and set due date by which recommendation should be implemented.
Assign owner & set due date ⓘ

Exempt
Exempt the entire recommendation, or disable specific findings using disable rules.
Exempted resources appear as not applicable and do not affect secure score.
Exempt

Workflow automation
Set a logic app which you would like to trigger with this security recommendation.
Trigger logic app



Privileged Access Governance with PIM

To reduce standing administrative privileges, Owner access is assigned using **Privileged Identity Management (PIM)** with **time-bound eligibility**.

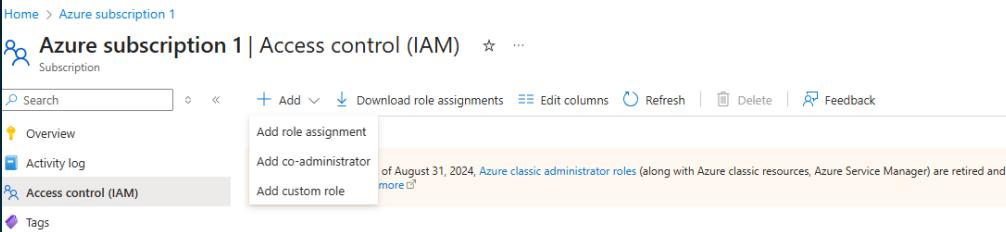
A **Break Glass account** is maintained for emergency access scenarios, aligning with Zero Trust and least-privilege principles.

Home > Azure subscription 1 | Access control (IAM) >

Add role assignment

A role definition is a collection of permissions. You can use Copilot to help pick a role.

Role	Members	Conditions	Assignment type	Review + assign
Job function roles	Privileged administrator			
Grant privileged administrator access, such as the				
⚠️ Can a job function role with less access be used instead?				
<input type="text"/> owner				
Name ↑				
Owner				
Description				
Showing 1 - 1 of 1 results.				



Check access Role assignments Roles Deny assignments Classic ac...

Looking for the previous check access view? [Click here.](#)

Check access

Review the level of access a user, group, service principal, or managed identity has to this resource.

[Check access](#)

Perparim Abdullahu Assignments

Active ⓘ Eligible ⓘ Deny ⓘ
2 0 0

Search by role name or membership

Role Name ↑↓	Scope ↑↓	Role	Members	Conditions	Assignment type	Review + assign
Active permanent assignments (2)						
Owner	⚠️ This role is assigned to multiple resources.	Role	Owner			
		Scope	/subscriptions/			
		Members	Name			Object ID
			Break Glass			User
		Description	No description			
		Condition	Preconfigured (Constrain roles and principals)			
		Assignable roles:	Owner			
		Assignable principals:	Break Glass			
		Assignment type	Eligible			
		Assignment duration	Time bound			
		Start date and time	/2025, 8:50:32 AM			
		End date and time	/2026, 8:50:32 AM			
		⚠️ Users with eligible and/or time-bound assignments must have a valid license.				

✓ **Added Role assignment**

Break Glass now has Eligible Timebound assignment for Owner role on Azure subscription 1.



Note: Defender for Cloud recommendations may still appear because Secure Score evaluates active assignments, not eligible roles.

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Security Architecture | Zero Trust | © PerparimLabs

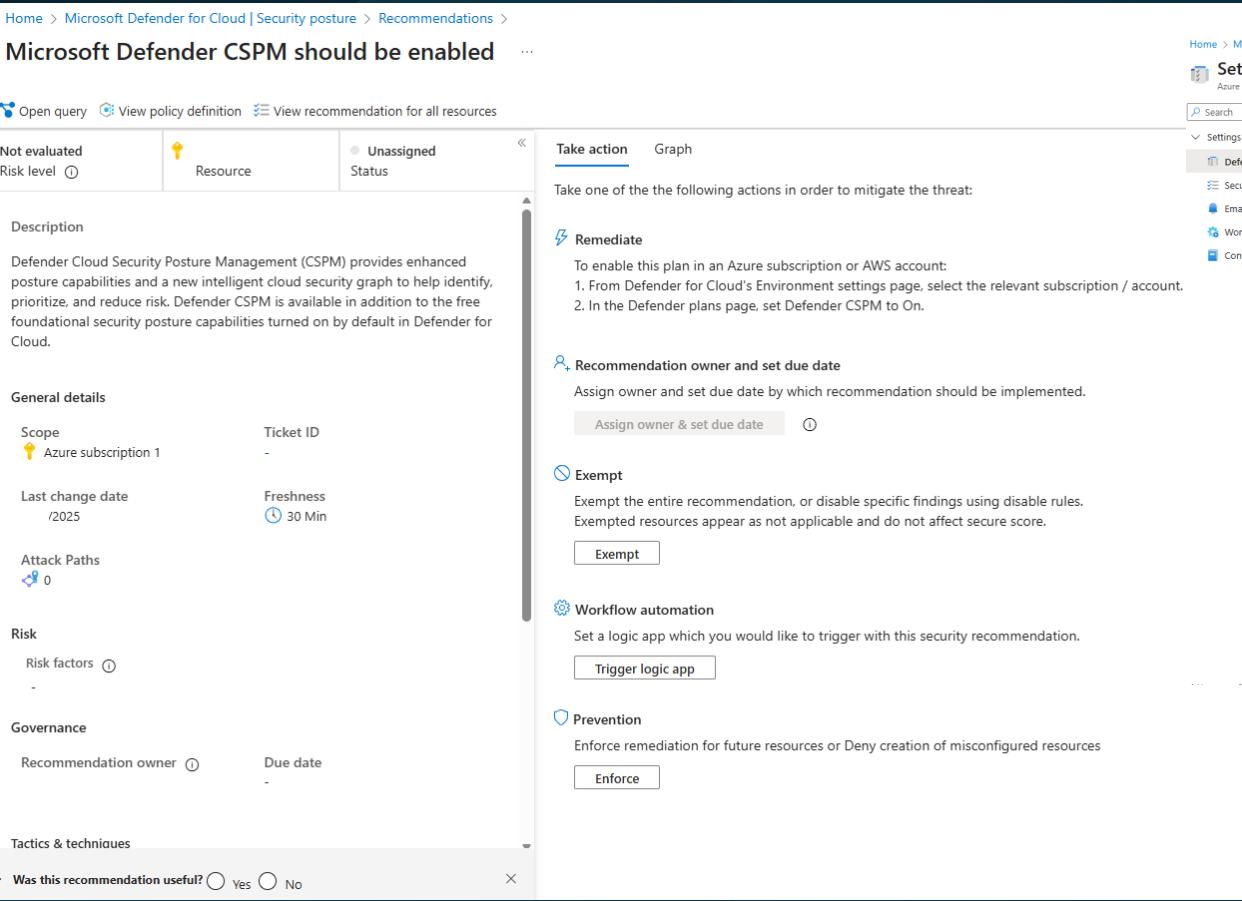
[Review + assign](#)

[Previous](#)

[Next](#)

CSPM Recommendations Screen (Paid Features)

- Microsoft Defender CSPM should be enabled
- Defender Plans with pricing (\$5/resource/month)



The screenshot shows the Microsoft Defender for Cloud Recommendations screen. A specific recommendation is highlighted: "Microsoft Defender CSPM should be enabled". The recommendation details are as follows:

- Description:** Defender Cloud Security Posture Management (CSPM) provides enhanced posture capabilities and a new intelligent cloud security graph to help identify, prioritize, and reduce risk. Defender CSPM is available in addition to the free foundational security posture capabilities turned on by default in Defender for Cloud.
- General details:**
 - Scope: Azure subscription 1
 - Last change date: /2025
 - Attack Paths: 0
 - Risk: Risk factors: 0
 - Governance: Recommendation owner: [redacted] Due date: [redacted]
 - Tactics & techniques: Was this recommendation useful? [redacted] Yes [redacted] No [redacted]
- Take action:** Graph, RemEDIATE, Recommendation owner and set due date, EXEMPT, Workflow automation, Prevention.
- Graph:** A visual representation of the intelligent cloud security graph.

The right side of the screenshot shows the "Settings | Defender plans" page. It displays the following plans:

Plan	Pricing*	Resource quantity	Monitoring coverage	Status
Foundational CSPM	Free	0 resources	Full	Off On
Defender CSPM	\$5/Billable resource/Month	0 resources	Off On	Off On

Below this, the "Cloud Workload Protection (CWPP)" section is shown, listing protection plans for Servers, App Service, Databases, and Storage.

Note: Defender CSPM and other workload protection plans are paid offerings. In this demo I am showing where they appear in the UI but I did NOT activate any paid plans.

Key Takeaways – Microsoft Defender for Cloud



- Microsoft Defender for Cloud provides a centralized view of security posture across subscriptions and workloads
- Secure Score highlights actionable recommendations to reduce risk and improve baseline security
- Regulatory compliance and Microsoft Cloud Security Benchmark help measure alignment with security standards
- Foundational posture management is available at no cost, while advanced CSPM and workload protections are optional paid capabilities
- Architects must balance security improvements with cost, scope, and business requirements