

# **Microsoft ADC Cybersecurity Skilling Program**

## **Week 3 Lab Assignment**

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## **Introduction**

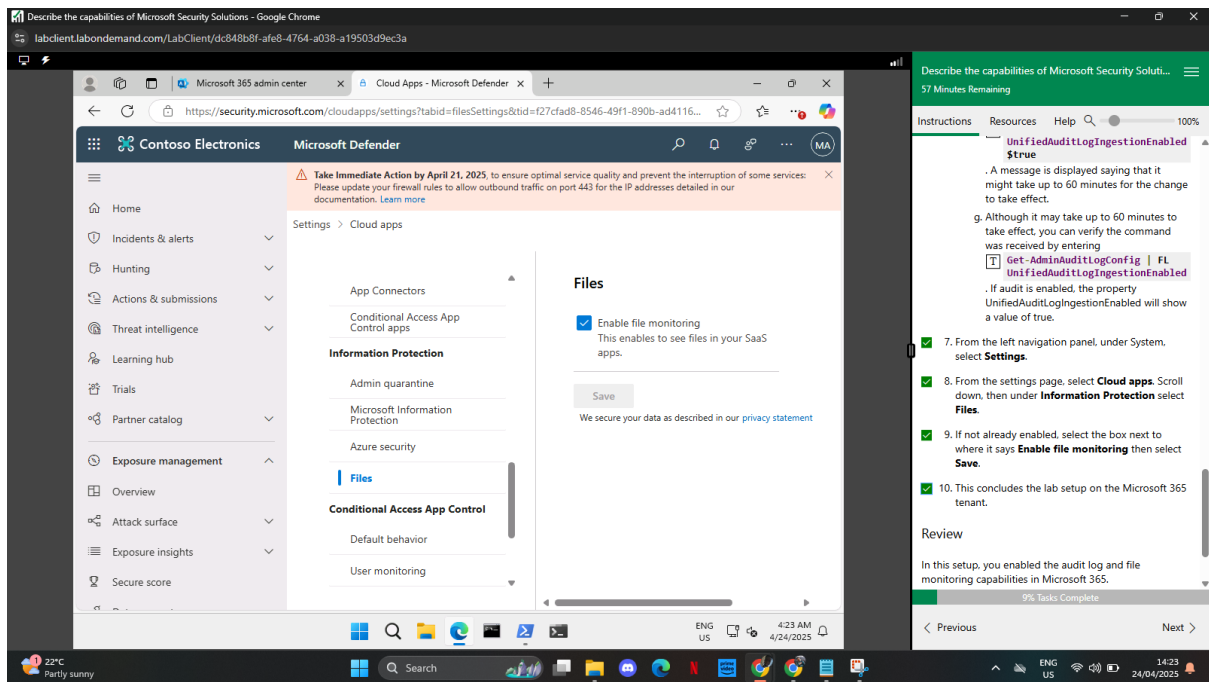
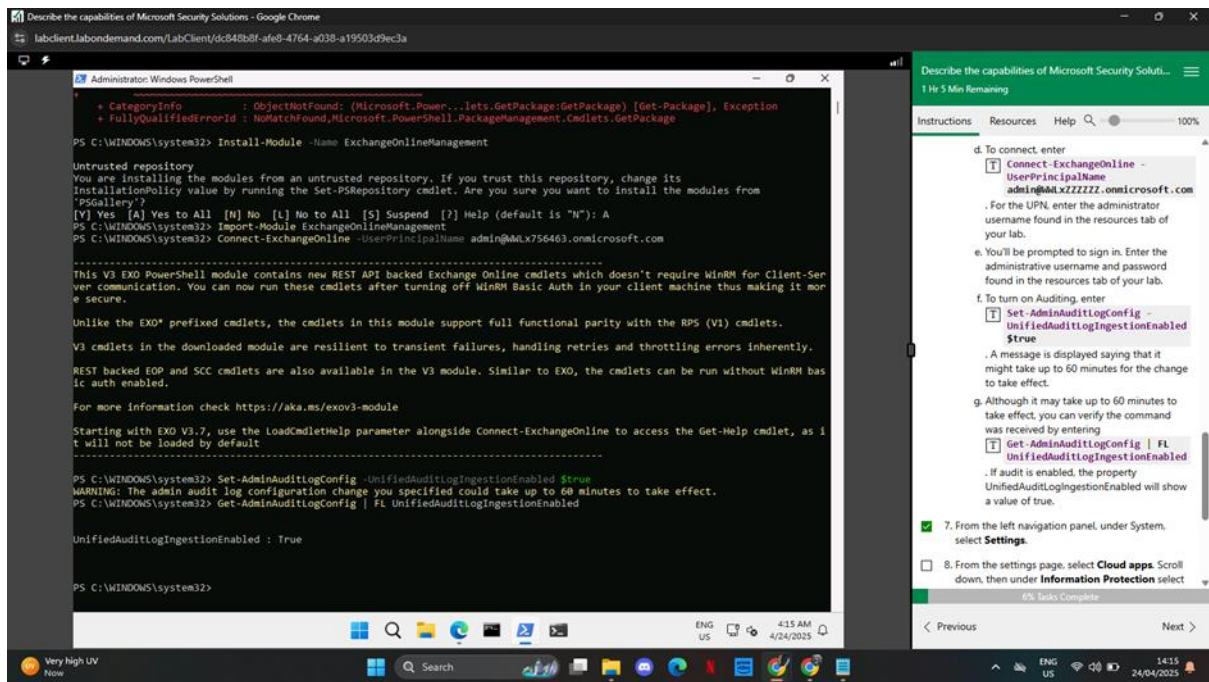
The following report presents a comprehensive overview of six hands-on labs that explore core components of Microsoft security and compliance solutions. Each lab focused on practical tasks within the Microsoft 365 and Azure ecosystems, offering a guided experience in configuring and managing enterprise-grade security tools. From setting up tenant auditing in Microsoft 365 to exploring threat detection through Microsoft Sentinel and posture management with Defender for Cloud, these labs provided valuable insights into how Microsoft's integrated security solutions work together to enhance visibility, compliance, and protection across cloud environments.

This week, we will be completing the second lab that explores the Describe the capabilities of Microsoft Security Solutions. The labs you need to complete will include:

1. Lab: Setup of the Microsoft 365 tenant
2. Lab: Explore Azure Network Security Groups (NSGs)
3. Lab: Explore Microsoft Defender for Cloud
4. Lab: Explore Microsoft Sentinel
5. Lab: Explore Microsoft Defender for Cloud Apps
6. Lab: Explore the Microsoft Defender portal

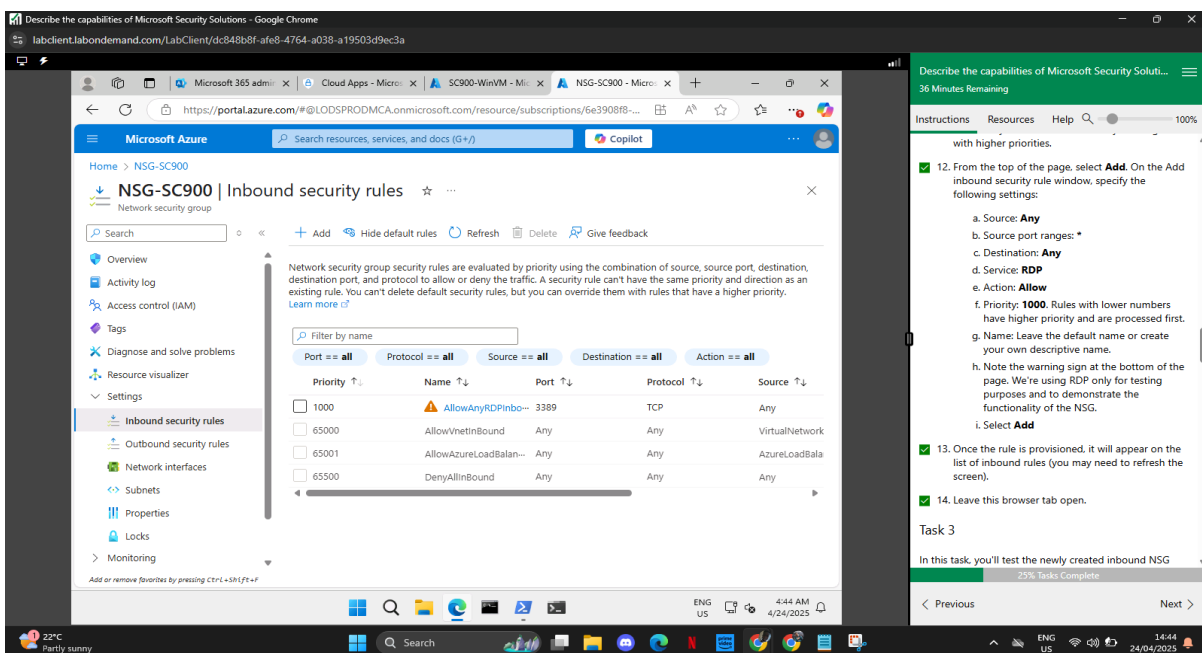
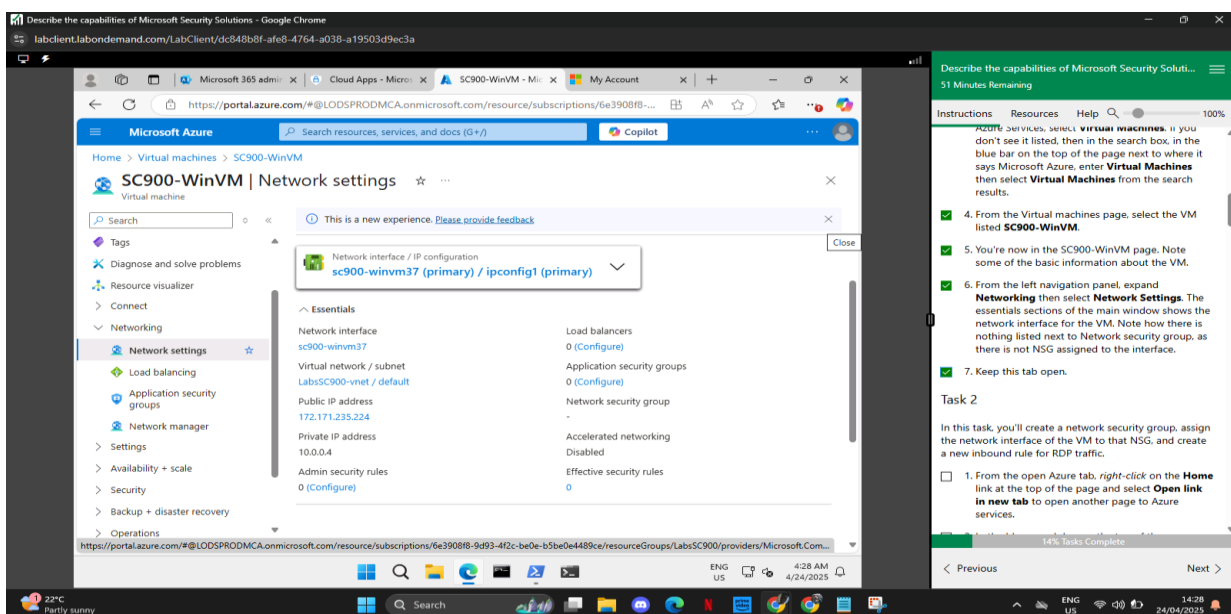
### **Lab 1: Setup of the Microsoft 365 tenant**

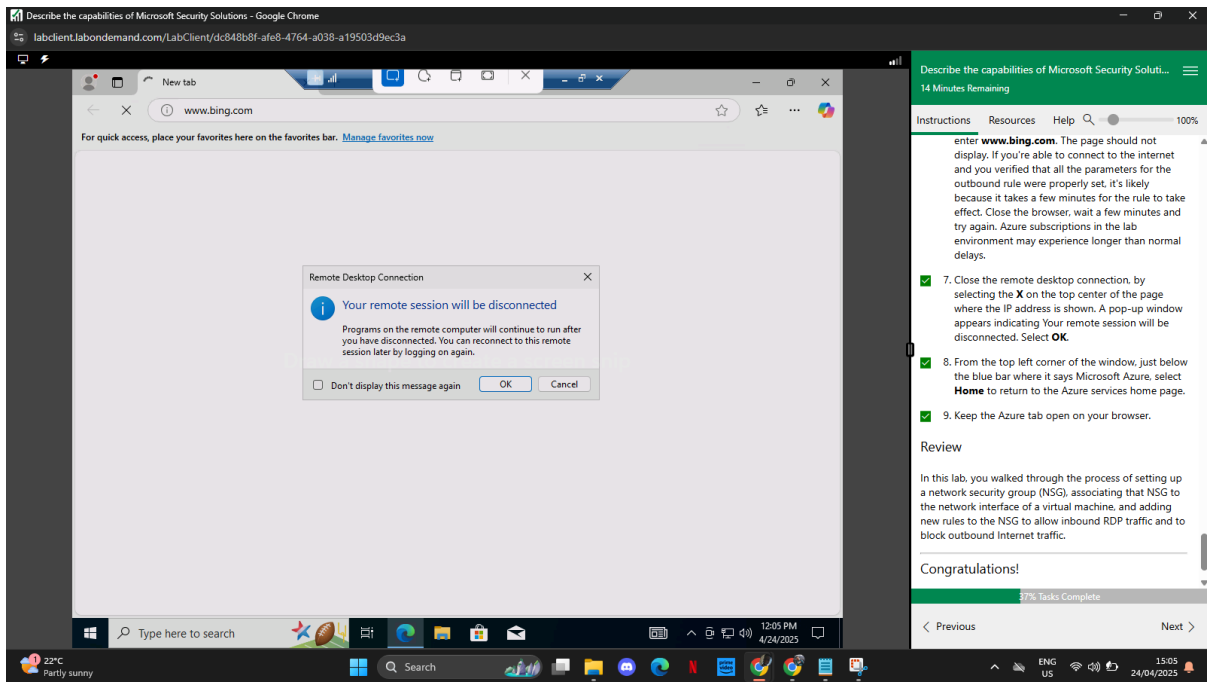
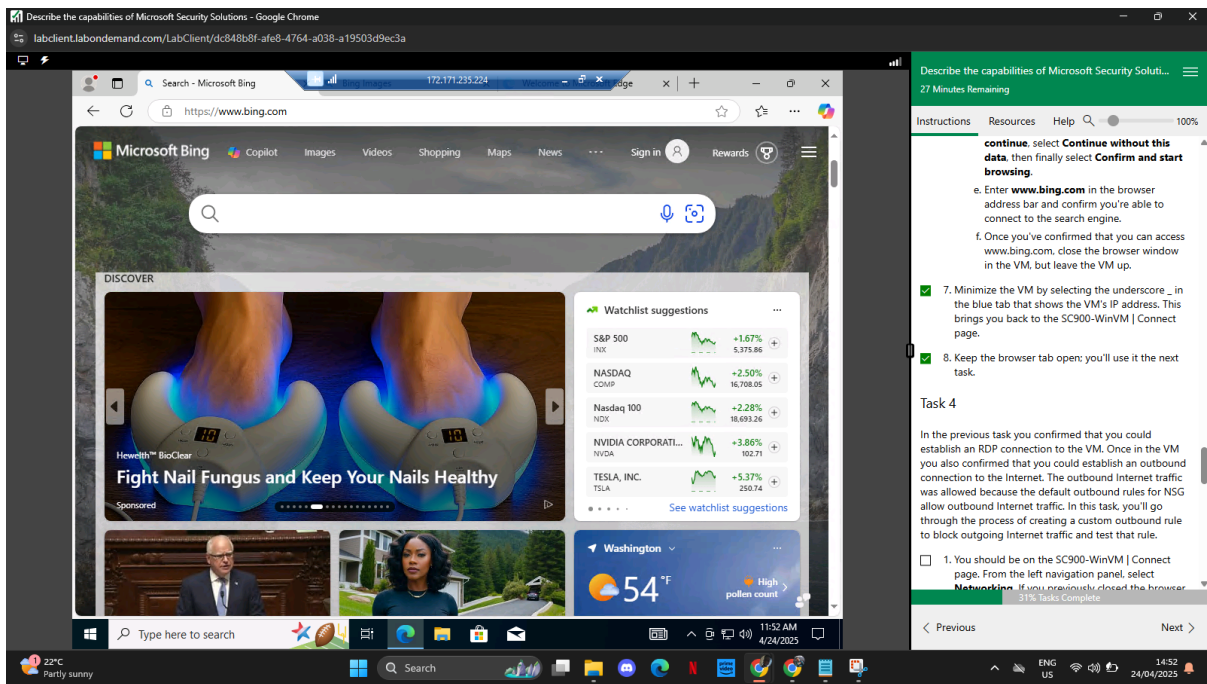
In this lab, I successfully configured the Microsoft 365 tenant by enabling key auditing and file monitoring features. I began by accessing the Microsoft 365 admin center and navigating to the Microsoft Defender portal. From there, I verified whether auditing was already enabled. Since it was not, I initiated the process of recording user and admin activities. In cases where the graphical interface failed to confirm audit status, I used PowerShell commands to manually enable the unified audit log ingestion. Once activated, I confirmed that the `UnifiedAuditLogIngestionEnabled` property was set to true. Lastly, I enabled file monitoring under the Cloud apps settings, specifically under the Information Protection section. This lab provided foundational exposure to tenant setup and reinforced the importance of audit logging and file tracking for effective security monitoring within the Microsoft 365 environment.



## Lab 2: Explore Azure Network Security Groups (NSGs)

In Lab 2, I explored the functionality of Azure Network Security Groups (NSGs) by creating an NSG and associating it with the network interface of a pre-existing virtual machine (VM). I reviewed the default inbound and outbound security rules, then created a custom inbound rule to allow Remote Desktop Protocol (RDP) traffic on port 3389. After verifying that the RDP connection was accessible, I connected to the VM and confirmed outbound internet access by navigating to [www.bing.com](https://www.bing.com). Next, I created a custom outbound rule to block all internet traffic by denying all outbound connections to the "Internet" service tag. After waiting for the rule to take effect, I tested the VM's outbound connectivity again and confirmed that access to [www.bing.com](https://www.bing.com) was successfully blocked. This lab demonstrated how NSGs can be used to control traffic flow to and from Azure resources.





### Lab 3: Explore Microsoft Defender for Cloud

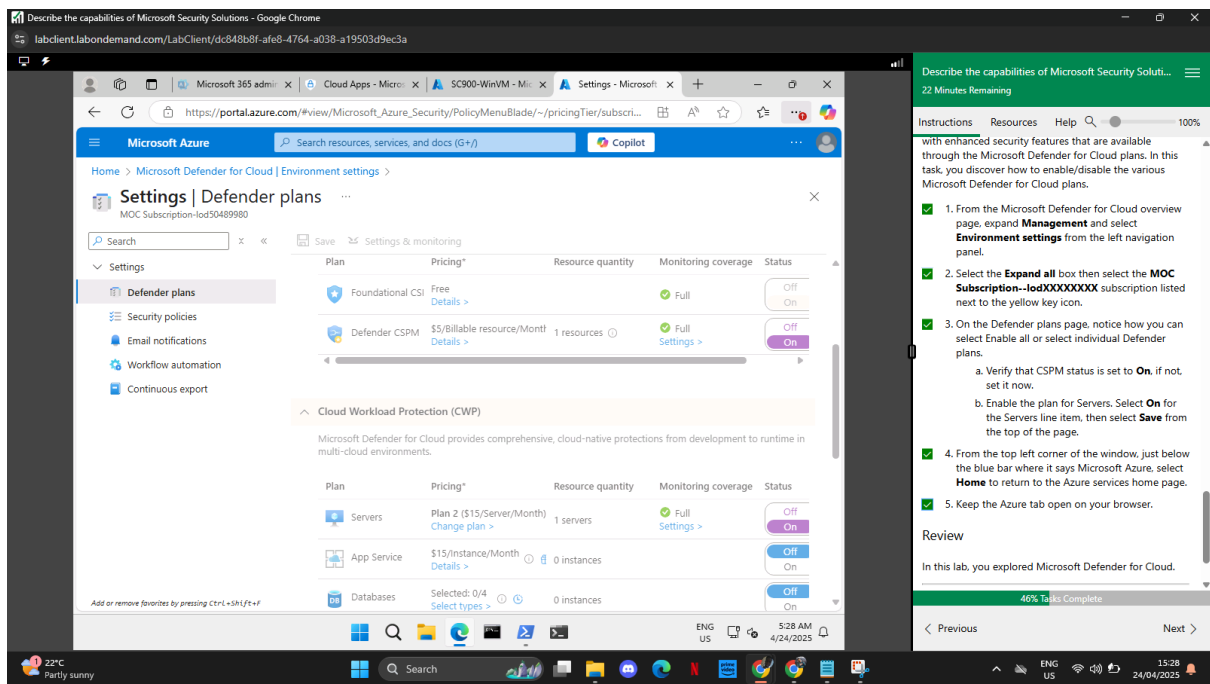
In Lab 3, I explored Microsoft Defender for Cloud, focusing on its capabilities for security posture management within Azure. I accessed the Microsoft Defender for Cloud from the Azure portal and reviewed the Overview page, which displayed information such as the number of Azure subscriptions, assessed resources, active recommendations, and security alerts. I navigated to the Inventory page to examine a virtual machine resource (sc900-winvm) and reviewed specific unhealthy status recommendations and their remediation steps. I also viewed the Recommendations tab and analyzed active recommendations by severity. Under the Regulatory compliance section, I explored compliance controls based on the Microsoft cloud security benchmark, specifically reviewing the Network Security domain (NS-10) related to DNS security. Lastly, I examined the Environment settings under Management to manage Defender plans, verifying that Cloud Security Posture Management (CSPM) was enabled and enabling the plan for Servers. This lab provided hands-on experience with monitoring and managing cloud security using Microsoft Defender for Cloud.

The screenshot displays the Microsoft Defender for Cloud Regulatory compliance page in the Azure portal. The page title is "Microsoft Defender for Cloud | Regulatory compliance". The left sidebar shows the navigation menu with "Regulatory compliance" selected. The main content area displays the "Microsoft cloud security benchmark" and "Lowest compliance standards". It indicates that there are no additional standards currently monitored and provides links to "Manage compliance standards". A right-hand panel shows "Cloud compliance data now integrated in Microsoft Purview Compliance Manager".

On the right side of the screenshot, there is a sidebar with instructions for the lab. The instructions are as follows:

- Instructions
- Resources
- Help
- 17 Minutes Remaining
- 100%
- Describe the capabilities of Microsoft Security Solutions. Verify that Microsoft cloud security benchmark tab is selected/underlined. Under each control domain is a subset of controls and for each control there are one or more assessments. Each assessment provides information including description, remediation, and affected resources.
- b. Let's explore one of the control domains areas. Select (expand) **NS. Network Security**. A list of controls related to network security is displayed.
- c. Select **NS-10. Ensure Domain Name System (DNS) security**. Note the list of automated assessments (which include automated assessments for AWS) and how each assessment line item provides information including the resource type, failed resources and compliance stations. Select the assessments listed. Here you see information including a description, Remediation steps, and Affected resources.
- d. Select the **X** on the top-right corner of the screen to close the page.
- e. Select **Overview** from the left navigation panel to return to the Microsoft Defender for Cloud Overview page.
- f. Keep the Microsoft Defender for Cloud overview page open, you'll use in the next task.

At the bottom of the sidebar, it shows "43% Tasks Complete" and navigation buttons for "Previous" and "Next".



## Lab 4: Explore Microsoft Sentinel

In Lab 4, I explored the capabilities of Microsoft Sentinel by first creating a Sentinel instance and setting up a Log Analytics workspace named SC900-LogAnalytics-workspace. I ensured appropriate access control by reviewing and understanding built-in Microsoft Sentinel roles and assigning them at the resource group level. Next, I connected Sentinel to a data source by deploying the Microsoft Defender for Cloud solution via the Content Hub and configured its connector and an associated analytics rule. Finally, I explored various Sentinel features, including Incidents, Hunting, Notebooks, Threat Intelligence, MITRE ATT&CK, Analytics, Automation, and the Community section, gaining hands-on experience in threat detection and security operations management within the Microsoft Sentinel environment.



Describe the capabilities of Microsoft Security Solutions - Google Chrome

labclient.labondemand.com/LabClient/dc848b8f-afe8-4764-a038-a19503d9ec3a

Microsoft Azure

SC900-LogAnalytics-workspace | Overview

Deployment

Search resources, services, and docs (G+V)

Copilot

Home >

Overview

Inputs

Outputs

Template

✓ Your deployment is complete

Deployment name : SC900-LogAnalytics-workspace

Subscription : MOC Subscription-Iod50489980

Resource group : SC900-Sentinel-RG

Start time : 4/24/2025, 5:35:06 AM

Correlation ID : 602f4b0e-b0ce-46ac-87ae-3b35b11aa700

Deployment details

source	Type	Status	Operation details
900-LogAnalytic	Log Analytics workspace	OK	<a href="#">Operation details</a>

Next steps

[Go to resource](#)

Add or remove favorites by pressing Ctrl+Shift+F

22°C Mostly sunny

ENG US 5:39 AM 4/24/2025

Describe the capabilities of Microsoft Security Solutions - Google Chrome

10 Minutes Remaining

Instructions Resources Help 100%

workspace, enter the following:

- Subscription: leave the default, this is the Azure subscription provided by the Authorized Lab Host (ALH).
- Resource group: select **SC900-Sentinel-RG**. If this resource group is not listed create it by selecting **Create new**, then select **OK**.
- Name: **SC900-LogAnalytics-workspace**.
- Region: **East US** (A different default region may be selected based on your location)
- Select **Review + Create** (no tags will be configured).
- Verify the information you entered then select **Create**.
- It may take a minute or two for the new workspace to be listed, if you still don't see it, select **Refresh**, then select **Add**.

6. Once the new workspace is added, the Microsoft Sentinel | News & guides page will display.

7. Keep the Microsoft Sentinel | News & guides page open in your browser.

You now have less than 10 minutes left in your lab. Would you like to extend your lab by 15 minutes?

Yes No

Task 2

32% Tasks Complete

Previous Next

Describe the capabilities of Microsoft Security Solutions - Google Chrome

labclient.labondemand.com/LabClient/dc848b8f-afe8-4764-a038-a19503d9ec3a

Microsoft Azure

SC900-Sentinel-RG | Access control (IAM)

Resource group

Search resources, services, and docs (G+V)

Copilot

Home > Resource groups > SC900-Sentinel-RG

Overview

Activity log

Access control (IAM)

Tags

Resource visualizer

Events

Settings

Cost Management

Monitoring

Automation

Help

microsoft sentinel

Type: All Category: All

Name	Description	Type	Category
Microsoft Sentinel Aut...	Microsoft Sentinel Automation Contributor	BuiltInRole	Security
Microsoft Sentinel Bus...	List and update actions on a business applications ...	BuiltInRole	None
Microsoft Sentinel Co...	Microsoft Sentinel Contributor	BuiltInRole	Security
Microsoft Sentinel Pla...	Microsoft Sentinel Playback Operator	BuiltInRole	None
Microsoft Sentinel Rea...	Microsoft Sentinel Reader	BuiltInRole	Security
Microsoft Sentinel Res...	Microsoft Sentinel Responder	BuiltInRole	Security

Showing 1 - 6 of 6 results.

Add or remove favorites by pressing Ctrl+Shift+F

22°C Mostly sunny

ENG US 5:45 AM 4/24/2025

Describe the capabilities of Microsoft Security Solutions - Google Chrome

20 Minutes Remaining

Instructions Resources Help 100%

tab on the top of the page/

- In the search box, enter **Microsoft Sentinel** to view the built-in roles associated with Microsoft Sentinel.
- From any of the roles listed, select **view** to view the details of that role. As a best practice you should assign the least privilege required for the role.
- Close the window by selecting the **X** on the top-right corner of the window.

6. From the access control page, close the window by selecting the **X** on the top-right corner of the window.

7. From the top left corner of the window, just below the blue bar where it says Microsoft Azure, select **Home** to return to the Azure services home page.

8. Keep the Azure tab open on your browser.

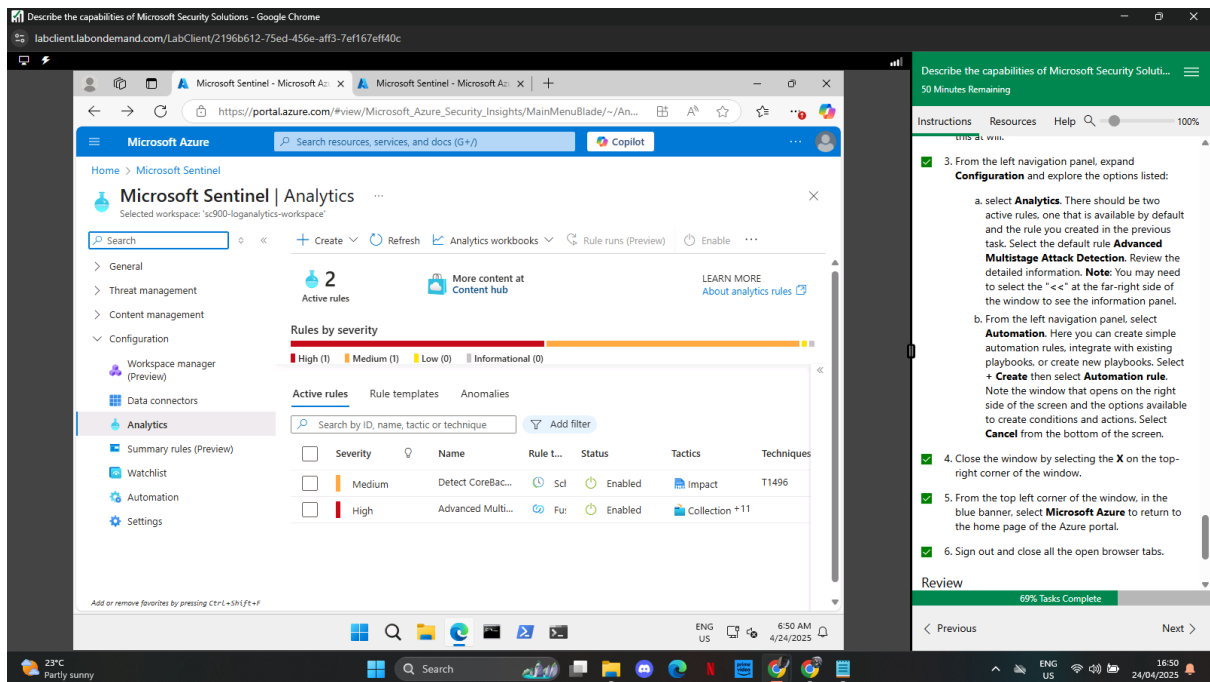
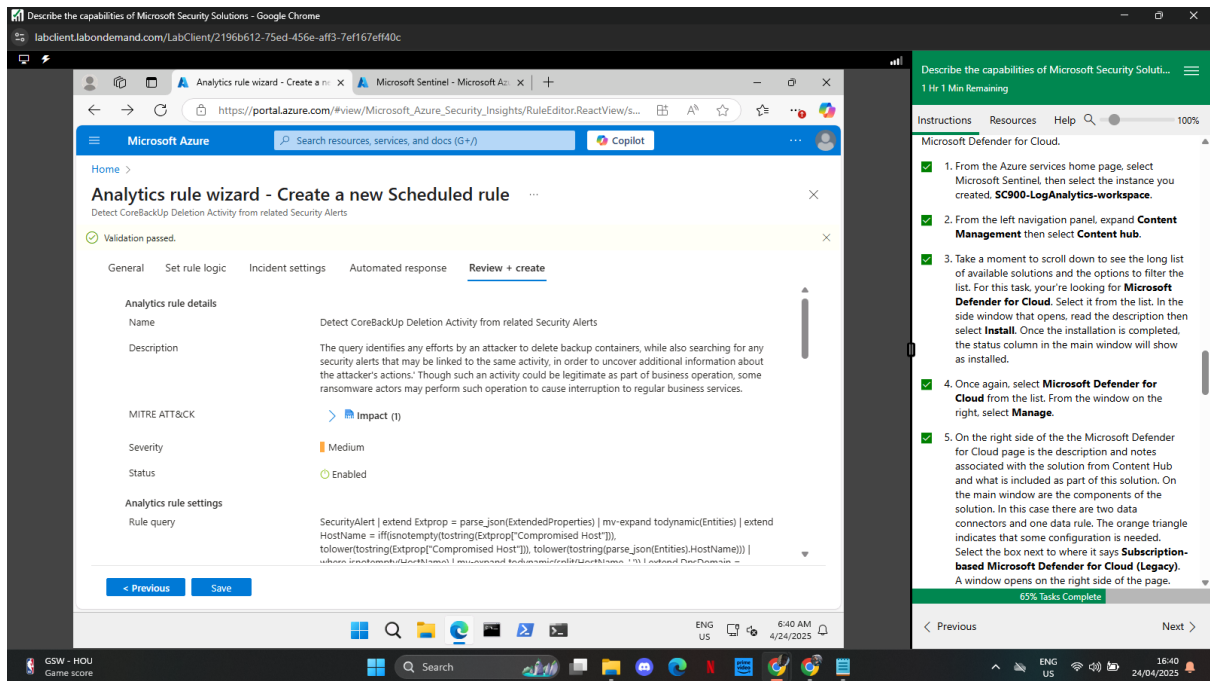
Task 3

The purpose of this task is to walk you through the steps involved in connecting to a data source. Many data connectors are deployed as part of a Microsoft Sentinel solution together with related content like analytics rules, workbooks and playbooks. The Microsoft Sentinel Content hub is the centralized location to discover and manage out-of-the-box (built-in) content. In this step, you will learn how to use the Content hub to discover and manage out-of-the-box (built-in) content.

56% Tasks Complete

Previous Next





## Lab 5: Explore Microsoft Defender for Cloud Apps

In this lab, I explored the capabilities of Microsoft Defender for Cloud Apps. I navigated the Cloud Discovery dashboard to view detailed information about discovered apps, IP addresses, and users, as well as options for uploading snapshot traffic reports and configuring automatic uploads. I examined app connectors, including how to connect Microsoft Azure and Office 365, and reviewed data visibility provided through connected apps. I also explored the Cloud app catalog, using filters like compliance risk factor and category to assess app risk and suitability. In the Activity log and Files sections, I learned how to investigate app activity and enable file monitoring for enhanced data protection. Finally, I examined policy management and templates, including how to create and configure policies to help control cloud app usage and mitigate risk.

The screenshot displays the Microsoft Defender for Cloud Apps interface. The left sidebar contains navigation options under 'System' (About, Organization details, Mail settings, Scoped deployment and privacy, IP address ranges, User groups, API tokens, SIEM agents, Playbooks), 'My account' (My email notifications), and 'Cloud Discovery' (Score metrics). The main content area is titled 'App Connectors' and includes a description: 'App connectors provide you with greater visibility and control over your cloud apps.' Below this, there are filter buttons for 'App: Any', 'App category: Any', and 'Connected by: Any'. A table lists two connected apps: Microsoft 365 and Microsoft Azure. The right-hand panel shows instructions for connecting apps and a task list. The task list includes 'Task 2 - Explore the Cloud app catalog' and a progress bar indicating '77% Tasks Complete'.

Microsoft Defender for Cloud Apps interface showing the App Connectors section. The interface includes a left sidebar with navigation options like System, My account, and Cloud Discovery. The main content area displays a table of connected apps, including Microsoft 365 and Microsoft Azure. A right-hand panel shows instructions for connecting apps and a task list.

Describe the capabilities of Microsoft Security Solutions - Google Chrome

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Microsoft 365 admin center x Cloud Apps - Microsoft Defender x

https://security.microsoft.com/cloudapps/settings?tabid=files&tid=f27cfad8-8546-49f1-890b-ad4116...

Microsoft Defender

Settings > Cloud apps

Files

☒ Enable file monitoring  
This enables to see files in your SaaS apps.

Save

We secure your data as described in our [privacy statement](#)

23°C Mostly sunny

Describe the capabilities of Microsoft Security Sol... 22 Minutes Remaining

Instructions Resources Help

a. The ability to scan files must be enabled as part of the Information protection settings of Microsoft 365 Cloud apps. Select **Enable file monitoring** and select the box next to where it says **Enable file monitoring** then select **Save**.

b. Return to files by selecting **Files**, listed under cloud apps, from the left navigation panel. As noted, it can take several days for files to display, once file monitoring is enabled it's worth noting that once files are listed you can filter data by app, owner, access level, file type, and matched policy. Also, you create a new policy from search and export of the data.

3. Keep this page open, as you'll use it in the next task.

Task 4 - Explore Policies

In this task, you'll explore the policies in Microsoft Defender for Cloud Apps.

1. From the left navigation panel, select **Policies** then select **Policy management**. The listed policies provide information on the number of alerts generated by the policy, severity, etc. Selecting any line item provides more detailed information about the policy.

82% Tasks Complete

Previous Next

Describe the capabilities of Microsoft Security Solutions - Google Chrome

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Microsoft 365 admin center x Policy templates - Microsoft Def... x

https://security.microsoft.com/cloudapps/policies/templates?tid=f27cfad8-8546-49f1-890b-ad4116370bc1

Microsoft Defender

Policy templates

Filters: Type: Select type Severity: High Medium Low Name: Template name Category: Select risk category

1 - 20 of 32 Templates Hide filters Table settings

Template	Seve...	Linked ...	Publish...
Administrative activity from a no Alert when an admin user performs ...	High	0	Jan 8, 2024 ...
Potential ransomware activity Alert when a user uploads files to th...	High	0	Jan 8, 2024 ...
Block upload of potential malwa Alert when a user uploads files to th...	High	0	Jan 8, 2024 ...
Block download of potential mal Alert when a user downloads files to...	High	0	Jan 8, 2024 ...

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Describe the capabilities of Microsoft Security Sol... 20 Minutes Remaining

Instructions Resources Help

policies provide information on the number of alerts generated by the policy, severity, etc. Selecting any line item provides more detailed information about the policy.

a. Note that you can also create a policy. Select + **Create policy** to view the types of policies you can create. Select **Activity policy** to view the different options available for creating the policy. Select **Cancel** to exit out of the configuration window.

b. Note that you can also have the option to export policy information.

2. From the left navigation panel, select **Policy templates**. To create a policy from one of the available templates, select the + on the right side of a template line item. View the different configuration options for the policy. Select **Cancel** to exit out of the page.

3. Close the browser window.

Review

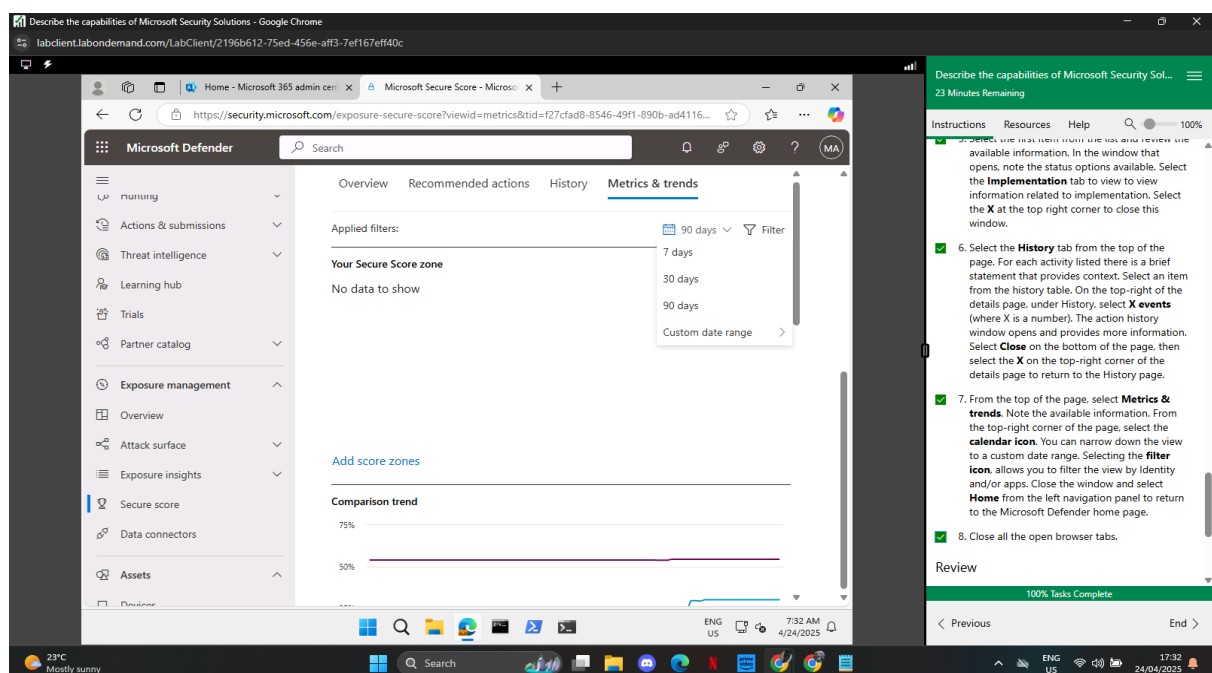
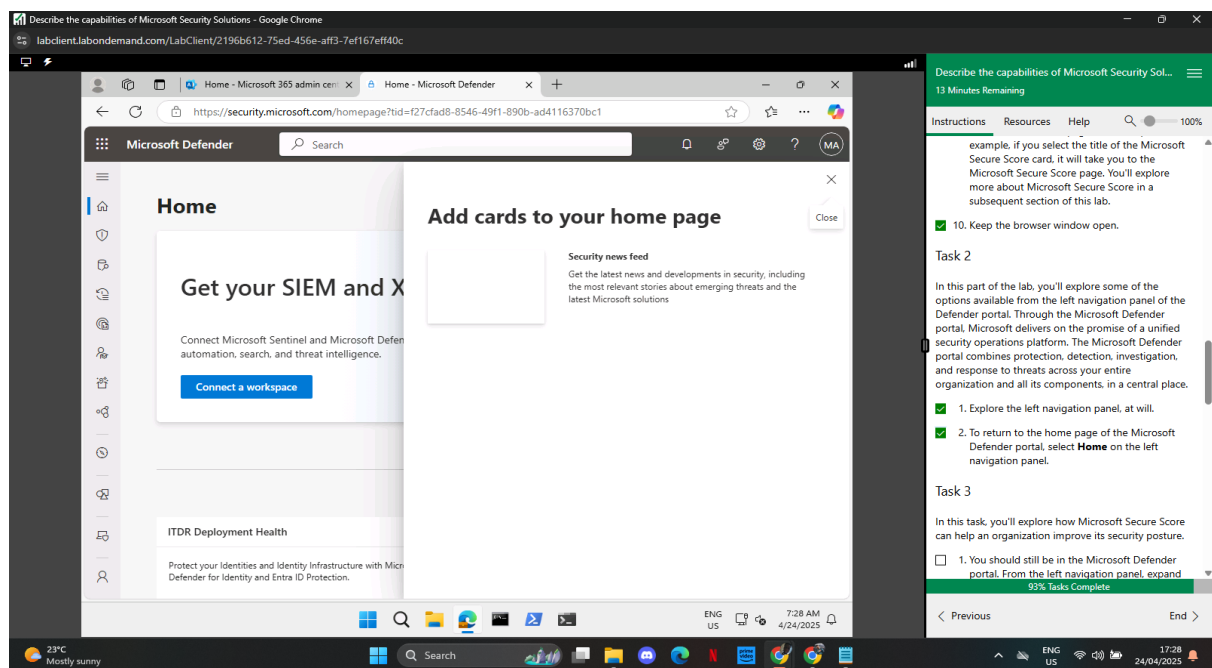
In this lab, you explored the capabilities of Microsoft Defender for Cloud Apps. You walked through information available on the Cloud Discovery dashboard, the Cloud app catalog, capabilities available to investigate findings, and ways to control impact to your organization through policies.

84% Tasks Complete

Previous Next

## Lab 6: Explore the Microsoft Defender portal

In Lab 6, I explored the Microsoft Defender portal by first examining the landing page and its customizable card layout. I learned how to add, remove, and rearrange cards based on my preferences as a global admin. I then navigated through the options on the left panel, which provided centralized access to Microsoft's Extended Detection and Response (XDR) solutions like Defender for Endpoints and Defender for Office 365. Lastly, I explored the Microsoft Secure Score feature, which evaluates an organization's security posture and provides actionable recommendations to improve it. I reviewed score breakdowns, implementation steps, historical data, and metrics and trends, gaining insights into how Secure Score can guide security improvements.



## **Conclusion**

Completing these six labs offered a practical and holistic understanding of Microsoft's cloud security landscape. I gained hands-on experience with tools that support governance, risk mitigation, and advanced threat detection. The labs demonstrated how to effectively monitor and manage user activity, secure network traffic, enforce policy compliance, and proactively respond to security threats using Microsoft 365 Defender, Defender for Cloud, Sentinel, and related portals. These exercises not only strengthened my technical skills but also emphasized the importance of an integrated, layered security approach in today's cloud-first environments.