



#### LIAM CLEARY | CEO @ SHAREPLICITY

MICROSOFT MVP (16 YEARS) MICROSOFT CERTIFIED TRAINER

FOCUS ON MICROSOFT 365 AND AZURE ARCHITECTURE, SECURITY AND COMPLIANCE, AND DEVELOPMENT

CREATE ONLINE TRAINING COURSES AT PLURALSIGHT, AND LINKEDIN LEARNING, AS WELL AS TEACHING ONLINE CERTIFICATION COURSES

I LIKE TO RUN, MOUNTAIN BIKE, AND I COACH **BOYS U12 SOCCER** 



#### AGENDA

1 INTRODUCTION TO AUTOMATED INVESTIGATION AND RESPONSE (AIR)

2 AUTOMATED INVESTIGATION AND RESPONSE (AIR)
WITHIN MICROSOFT 365

3 BENEFITS AND FEATURES

4 DEPLOYMENT AND SETUP



## INTRODUCTION TO AUTOMATED INVESTIGATION AND RESPONSE (AIR)

- MICROSOFT 365'S SOLUTION FOR RAPID, EFFICIENT RESPONSE TO SECURITY THREATS
- 2 WORKS SEAMLESSLY WITH MICROSOFT DEFENDER FOR OFFICE 365

- PERFORMS AUTOMATED INVESTIGATIONS IN RESPONSE TO SPECIFIC ALERTS
- REDUCES MANUAL WORKLOAD, FREES UP SECURITY TEAMS FOR STRATEGIC TASKS

## IMPORTANCE OF AUTOMATED INVESTIGATION AND RESPONSE (AIR)







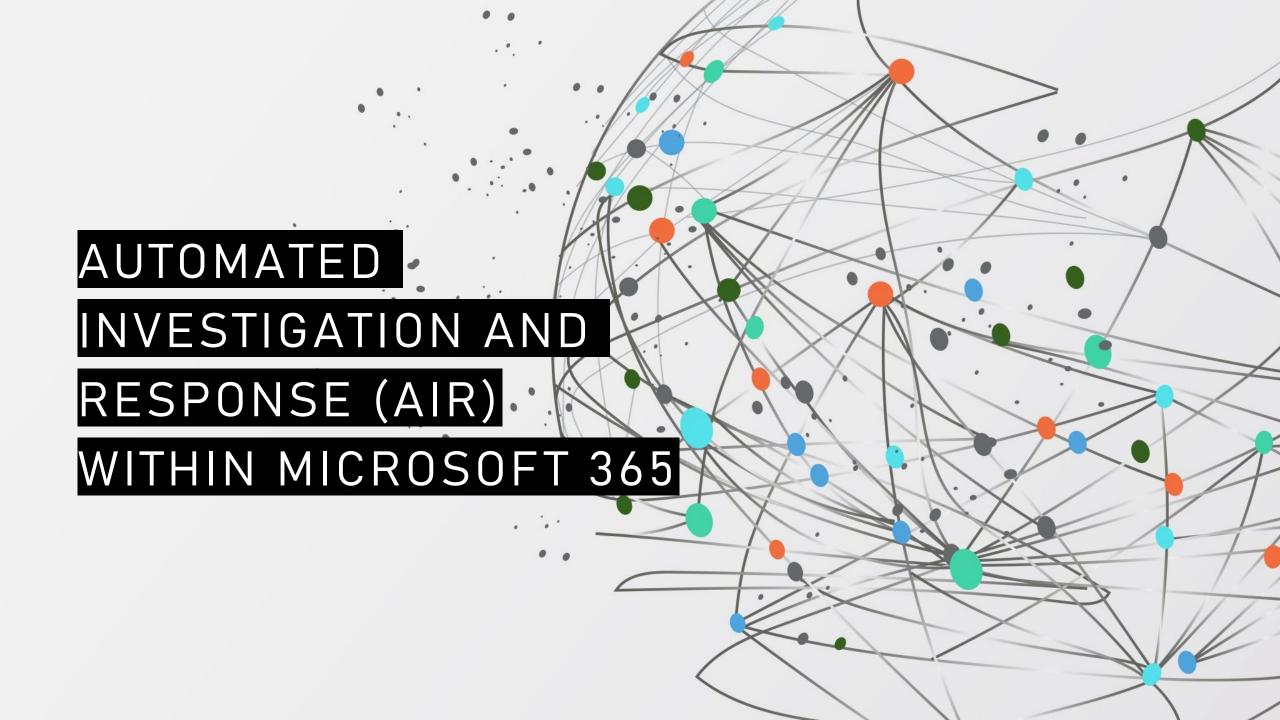
VOLUME AND COMPLEXITY



REDUCE TIME



SECURITY POSTURE



# AUTOMATED INVESTIGATION AND RESPONSE CAPABILITIES ARE INCLUDED WITHIN MICROSOFT DEFENDER FOR OFFICE 365

PROVIDED POLICIES AND ALERTS ARE CONFIGURED

#### MICROSOFT 365



KEY COMPONENT OF MICROSOFT 365'S SECURITY FRAMEWORK



INTEGRATES WITH MICROSOFT DEFENDER FOR OFFICE 365



AUTOMATED RESPONSE TO SPECIFIED SECURITY ALERTS



PROVIDES EFFICIENT MANAGEMENT OF POTENTIAL SECURITY THREATS

#### HOW IT WORKS WITHIN MICROSOFT 365









**DETECTION** 

USER AND SYSTEM ACTIVITIES INVESTIGATION FINDINGS

AUTOMATED OR MANUAL APPROVAL

#### HOW IT WORKS WITHIN MICROSOFT 365







MALICIOUS FILE DELIVERED

MALICIOUS URL DELIVERED

PHISHING EMAIL REPORTED

# BENEFITS AND FEATURES



#### KEY FEATURES









**ALERT TRIGGERS** 

DETAILED INVESTIGATIONS

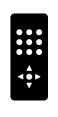
ACTIONABLE REPORTS

FLEXIBLE REMEDIATION

#### BENEFITS



**ENHANCED EFFICIENCY** 



**CONTROL AND OVERSIGHT** 



RAPID RESPONSE



STRENGTHENED SECURITY



COMPREHENSIVE INSIGHTS



**SCALABILITY** 



#### SUBSCRIPTION REQUIREMENTS



MICROSOFT 365 E5/A5

MICROSOFT 365 E3 WITH THE MICROSOFT 365 E5 SECURITY ADD-ON

MICROSOFT 365 A3 WITH THE MICROSOFT 365 A5 SECURITY ADD-ON

OFFICE 365 E5 PLUS ENTERPRISE MOBILITY + SECURITY E5 PLUS WINDOWS E5

#### NETWORK REQUIREMENTS



MICROSOFT DEFENDER FOR CLOUD APPS CONFIGURED

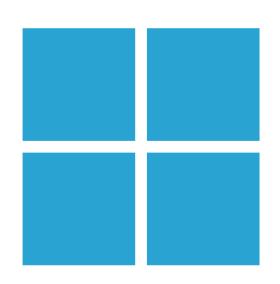


MICROSOFT DEFENDER FOR IDENTITY ENABLED



MICROSOFT DEFENDER FOR IDENTITY INTEGRATED

#### WINDOWS DEVICE REQUIREMENTS



WINDOWS 11 OR WINDOWS 10 (VERSION 1709 OR LATER)

MICROSOFT DEFENDER FOR ENDPOINT

MICROSOFT DEFENDER ANTIVIRUS

#### PERMISSIONS



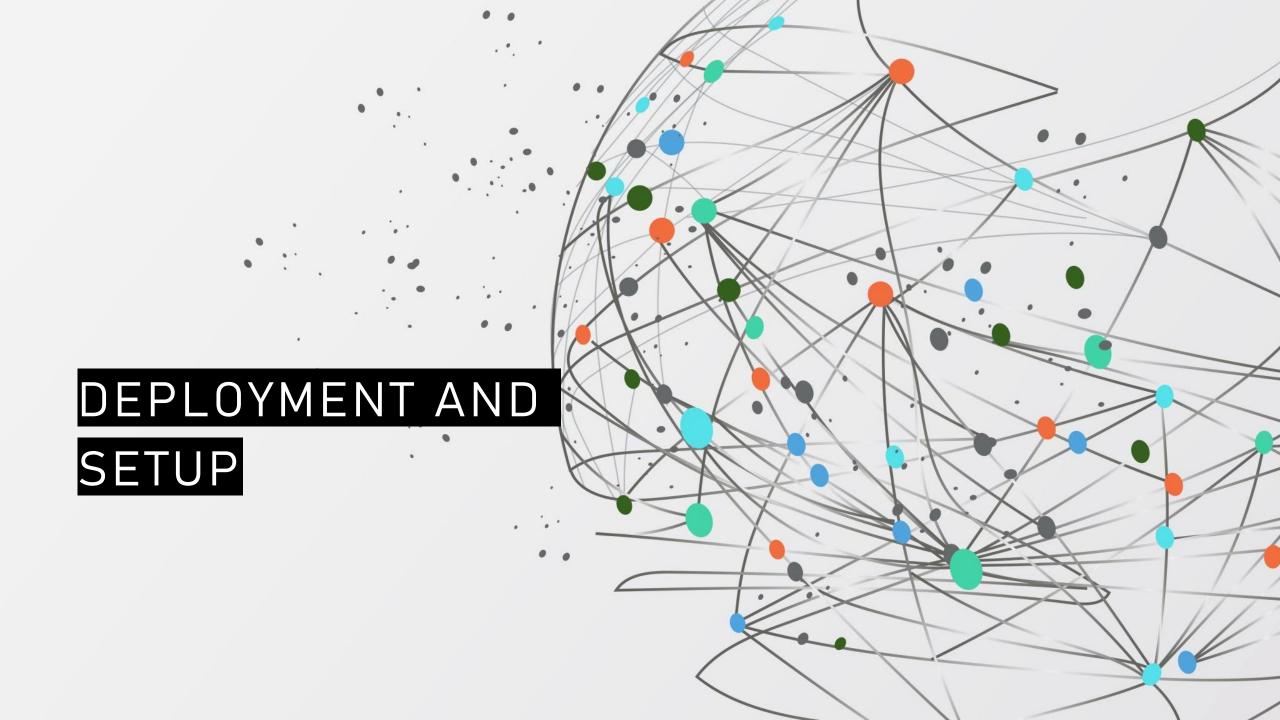
**GLOBAL ADMINISTRATOR** 

SECURITY ADMINISTRATOR

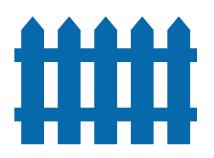
SECURITY OPERATOR

**SECURITY READER** 

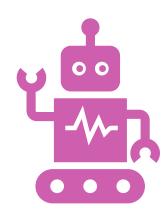
SEARCH AND PURGE



#### DEVICE GROUPS







MICROSOFT 365 DEFENDER **DEVICE GROUPS** 

**AUTOMATION LEVEL** 

DEMO

## ENDPOINTS

	Name	Description
£	Security center	General settings for the Microsoft 365 security center
<b>①</b>	Microsoft 365 Defender	General settings for Microsoft 365 Defender
뎐	Endpoints	General settings for endpoints
$\Diamond$	Email & collaboration	General settings for email & collaboration
2	Identities	General settings for identities
8	Device discovery	Select your device discovery mode and customize standard discovery settings
$\bigcirc$	Cloud Apps	General settings for cloud apps

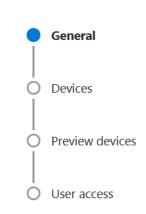
#### General

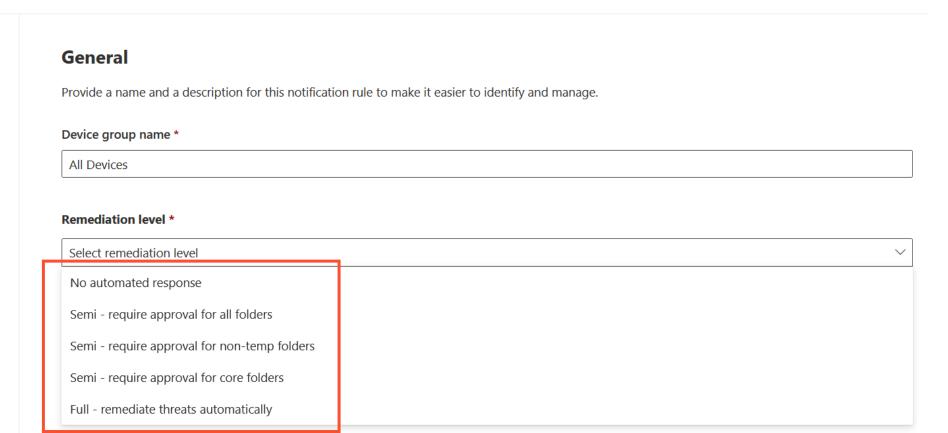
Advanced features Licenses **Email notifications** Auto remediation Permissions Roles Device groups APIs SIEM Rules Alert suppression Indicators Process Memory Indicators Web content filtering Automation uploads

Automation folder exclusions

#### DEVICE GROUP

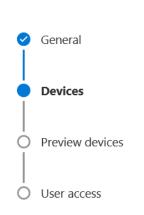
#### Add device group

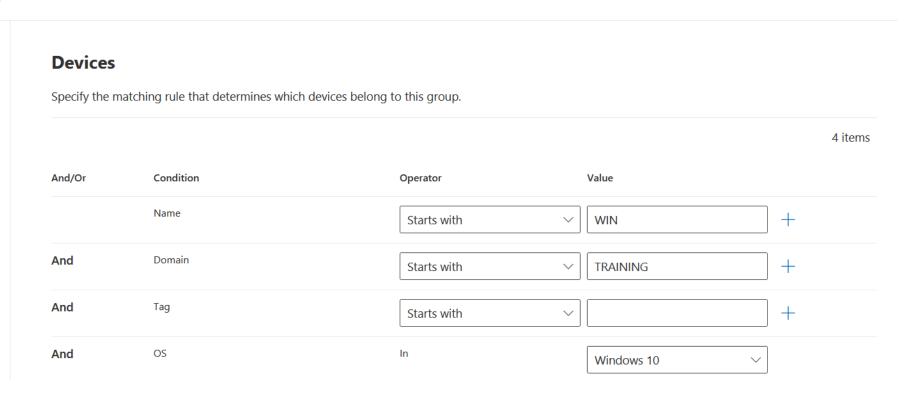




#### DEVICE GROUP

#### Add device group





## DEVICE GROUP

① Device group configuration has changed. Apply changes to check matches and recalculate groupings.

Apply changes

Discard changes

Organize devices into groups, set automated remediation levels, and assign administrators.

+ Add device group

Rank ↑	Device group	Devices	Remediation level
<u> </u>	All Devices	0	Full - remediate threats automatically

Organize devices into groups, set automated remediation levels, and assign administrators.

+ Add device group

Rank ↑	Device group	Devices	Remediation level
1	All Devices	0	Full - remediate threats automatically
Last	Ungrouped devices (default)	0	Full - remediate threats automatically

#### ALERT POLICIES

1 ANTI-MALWARE

2 ANTI-PHISHING

3 ANTI-SPAM

4 SAFE ATTACHMENTS

5 SAFE LINKS

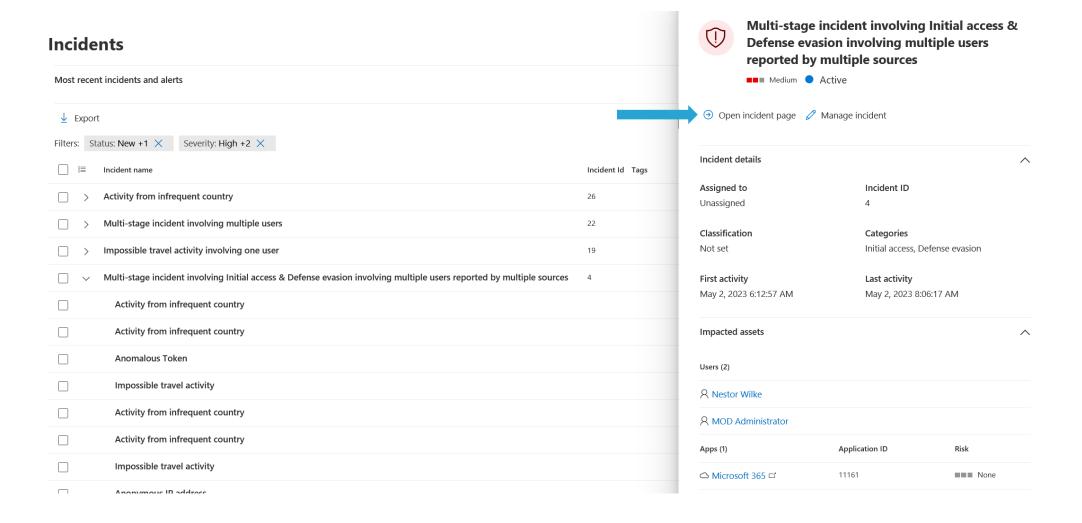
ZERO-HOUR AUTO PURGE

DEMO

### INCIDENTS LIST

□ =	Incident name	Incident Id Tags	Severity
_ >	Activity from infrequent country	26	■■■ Medium
_ >	Multi-stage incident involving multiple users	22	■■■ Medium
□ >	Impossible travel activity involving one user	19	■■■ Medium
	Multi-stage incident involving Initial access & Defense evasion involving multiple users reported by multiple sources	4	■■■ Medium
	Activity from infrequent country		■■■ Medium
	Activity from infrequent country		■■■ Medium
	Anomalous Token		■■■ Medium
	Impossible travel activity		■■■ Medium
	Activity from infrequent country		■■■ Medium
	Activity from infrequent country		■■■ Medium
	Impossible travel activity		■■■ Medium
	Anonymous IP address		■■■ Medium
	Anonymous IP address		■■■ Medium

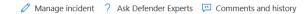
#### INCIDENT BASIC DETAILS

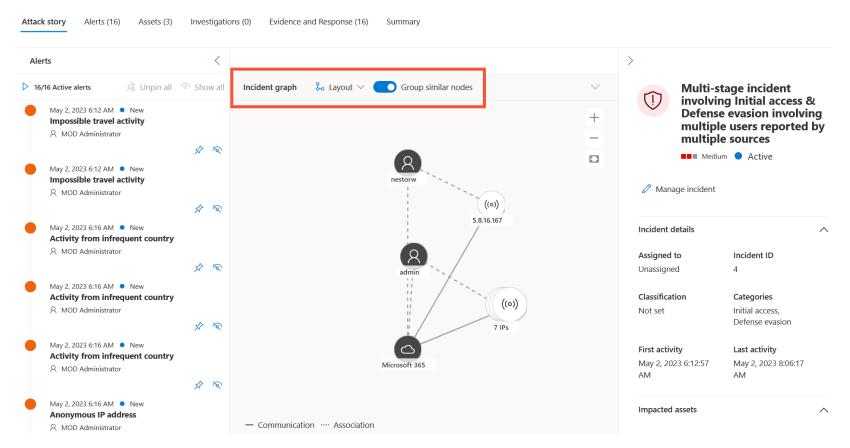


#### INCIDENT

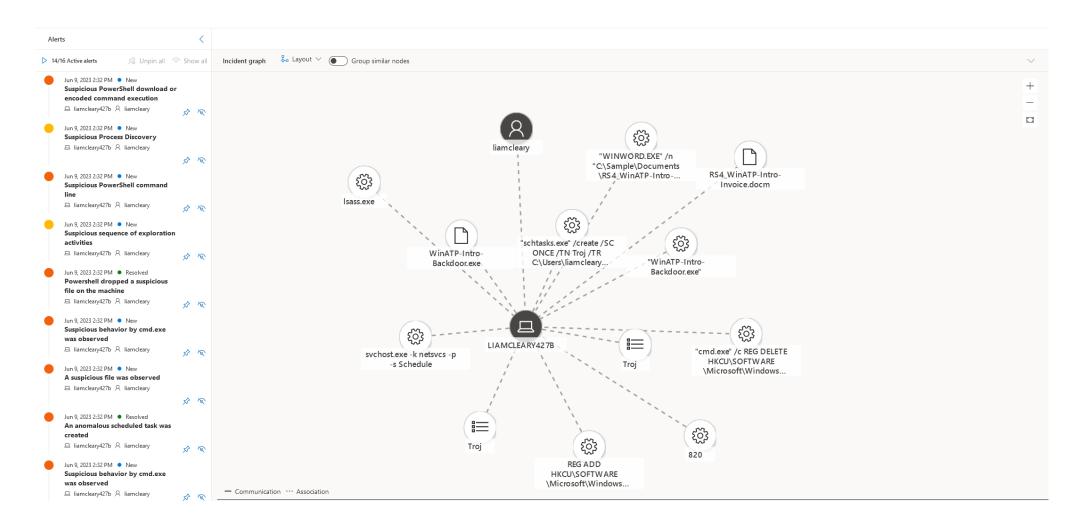


#### Multi-stage incident involving Initial access & Defe...

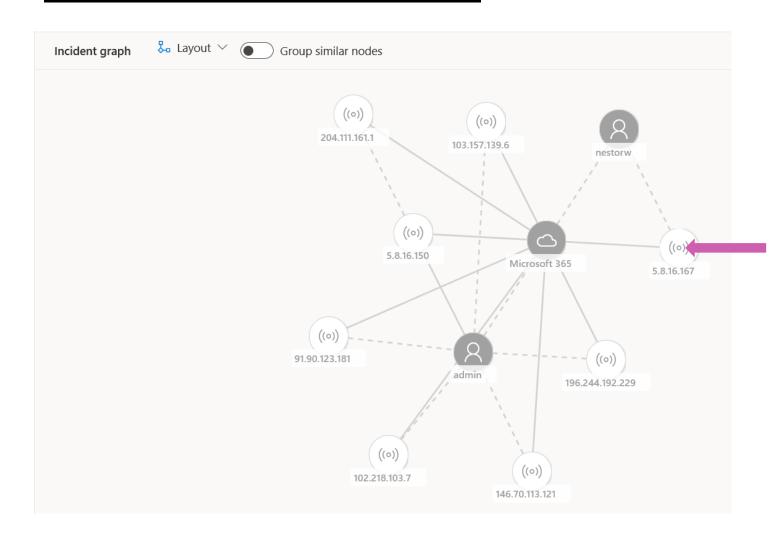




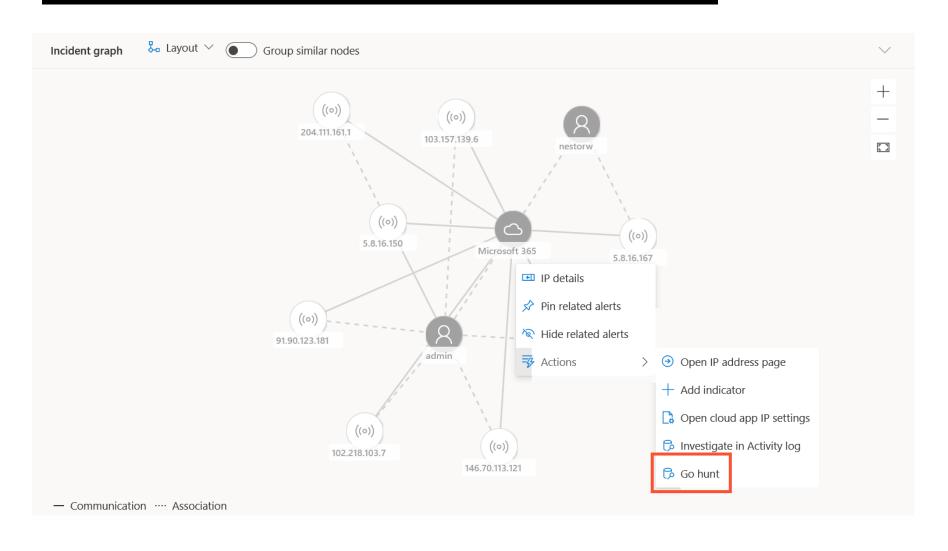
#### INCIDENT GRAPH



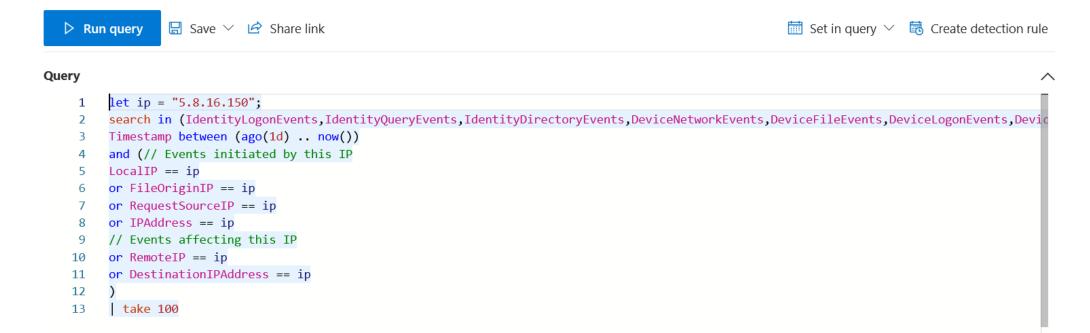
## INCIDENT GRAPH



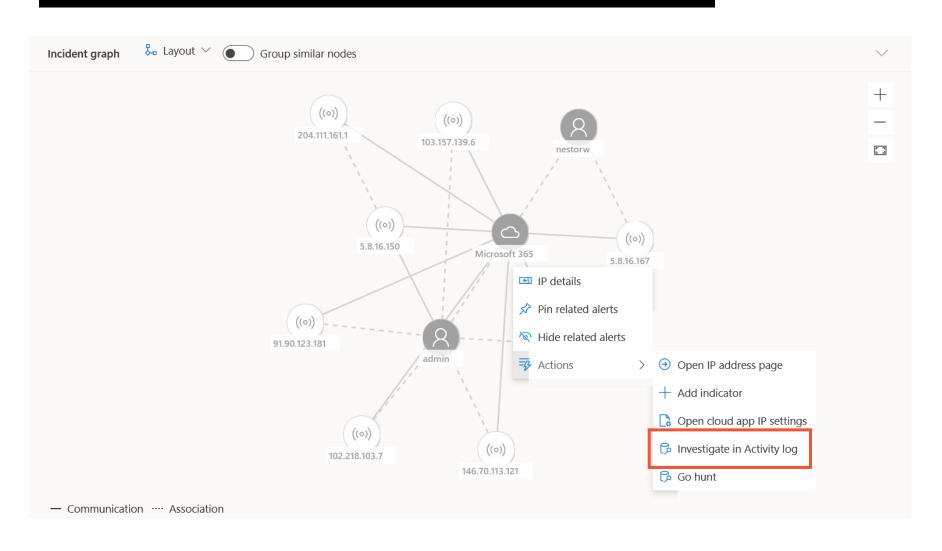
#### INCIDENT GRAPH ACTIONS



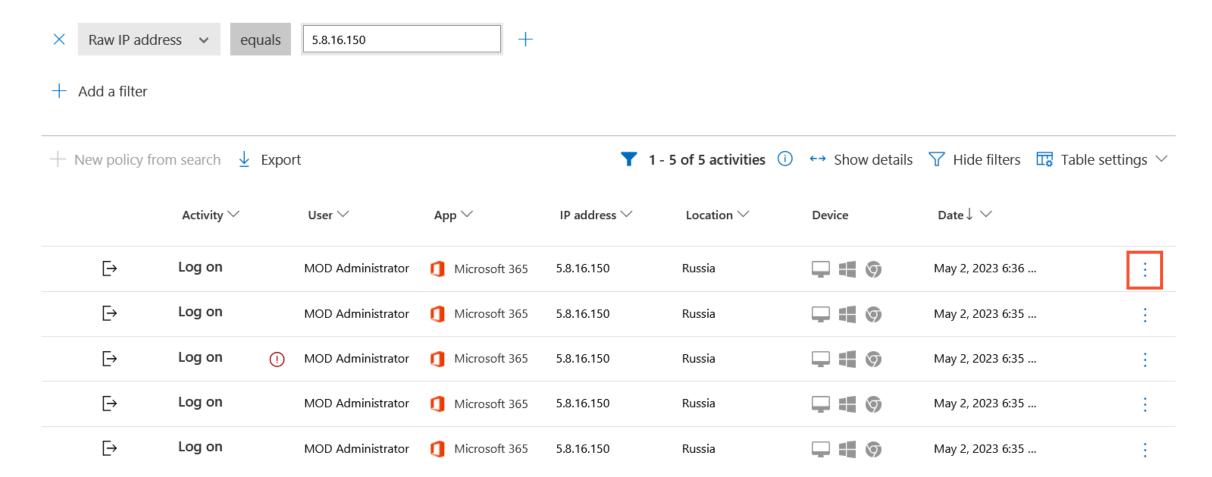
#### INCIDENT HUNTING



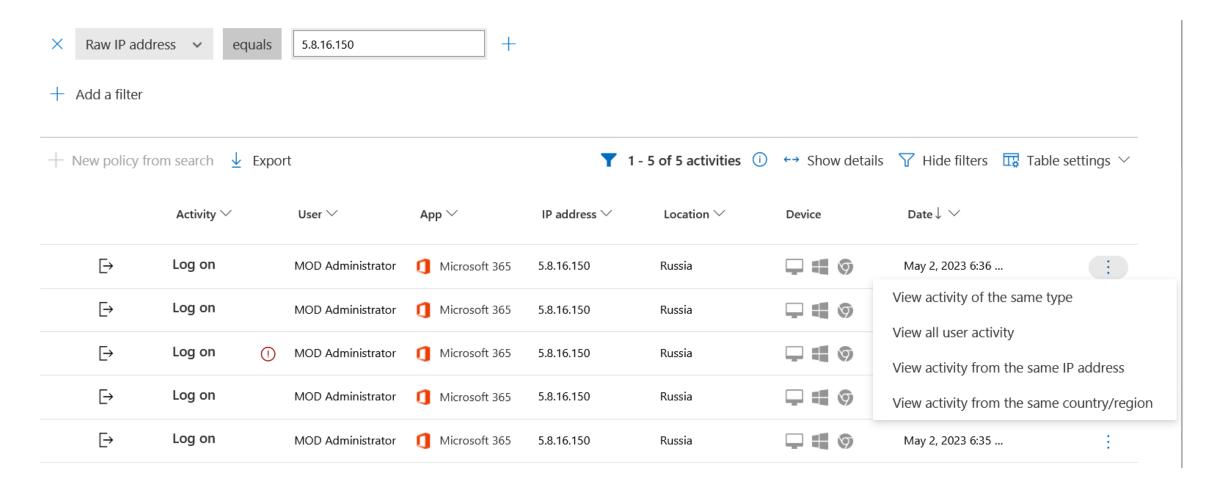
### INCIDENT GRAPH ACTIONS



### INVESTIGATE IN ACTIVITY LOG



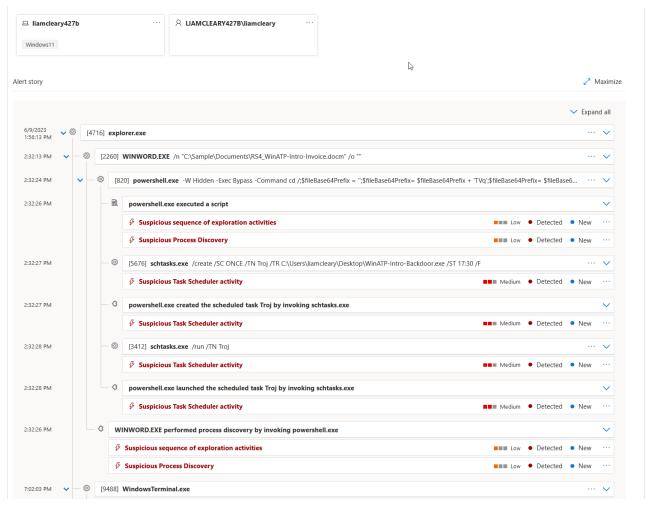
### INVESTIGATE IN ACTIVITY LOG

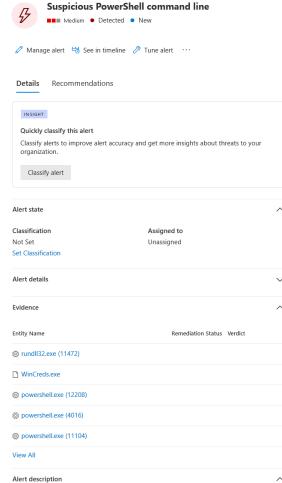


# INCIDENT ALERTS

Filters: Status: New +1 × Severity: High +2 ×							
	Incident name	Incident Id Tags	Severity	Investigation state	Categories	Impacted assets	
\( \square \)	Multi-stage incident involving Execution & Coll	27 Ransomware	<b>■■■</b> High	6 investigation states	Execution, Persistence,	. 🗕 liamcleary427b 👂 2 Accounts	
	Suspicious behavior by cmd.exe was observed	d	■■■ Medium	Running	Execution	묘 liamcleary427b 용 liamcleary	
	Suspicious behavior by cmd.exe was observed	d	■■■ Medium	Running	Execution	묘 liamcleary427b 용 liamcleary	
	Sensitive credential memory read		<b>■■■</b> High		Credential access	묘 liamcleary427b 용 liamcleary	
	Suspicious PowerShell command line		■■■ Medium	Running	Execution	묘 liamcleary427b 용 liamcleary	
	Suspicious sequence of exploration activities		Low		Discovery	□ LIAMCLEARY427B 👂 liamcleary	
	Anomalous account lookups		Low		Discovery	☐ liamcleary427b 👂 liamcleary	
	Suspicious access to LSASS service		<b>■■■</b> High	Running	Credential access	묘 liamcleary427b 용 liamcleary	
	An active 'LsassDump' malware was blocked		Low	Running	Malware	☐ liamcleary427b	
	Suspicious 'LsassDump' behavior was blocked	d	Low		Suspicious activity	묘 liamcleary427b 용 liamcleary	
	Mimikatz credential theft tool		<b>■■■</b> High		Credential access	且 LIAMCLEARY427B │ liamcleary	
	Possible attempt to steal credentials		<b>■■■</b> High	Running	Credential access	☐ liamcleary427b 👂 liamcleary	
	Suspicious behavior by cmd.exe was observe	d	■■■ Medium	Running	Execution	묘 liamcleary427b 용 liamcleary	
	Possible Antimalware Scan Interface (AMSI) t	i	<b>■■■</b> High		Defense evasion	묘 liamcleary427b 용 liamcleary	
	An active 'CalelzSh' malware in a PowerShell		Low	Running	Malware	☐ liamcleary427b 👂 liamcleary	

# INCIDENT DETAILS





# INCIDENT ALERTS



#### Multi-stage incident involving Initial access & Defe...

Manage incident

Attack story Alerts (16) Assets (3) Investigations (0) Evidence and Response (16)								
± Export 6 Months ∨								
Alert name	Tags	Severity	Investigation state	Status	Category	Detection source	Impacted assets	
Activity from infrequent country		■■■ Medium		• New	Defense evasion	Microsoft Defender for	, A nestorw	
Activity from infrequent country		■■■ Medium		• New	Defense evasion	Microsoft Defender for	A admin	
Anomalous Token		■■■ Medium		• New	Initial access	AAD Identity Protection	A admin	
Activity from infrequent country		■■■ Medium		• New	Defense evasion	Microsoft Defender for	. A admin	
Impossible travel activity		■■■ Medium		• New	Initial access	Microsoft Defender for	, A admin	
Impossible travel activity		■■■ Medium		• New	Initial access	Microsoft Defender for	. A admin	
Activity from infrequent country		■■■ Medium		• New	Defense evasion	Microsoft Defender for	A admin	
Anonymous IP address		■■■ Medium		• New	Initial access	AAD Identity Protection	A admin	
Anonymous IP address		■■■ Medium		• New	Initial access	AAD Identity Protection	A admin	
Activity from infrequent country		■■■ Medium		• New	Defense evasion	Microsoft Defender for	. A admin	
Activity from infrequent country		■■■ Medium		• New	Defense evasion	Microsoft Defender for	. A admin	
Anomalous Token		■■■ Medium		• New	Initial access	AAD Identity Protection	A admin	
Anonymous IP address		■■■ Medium		• New	Initial access	AAD Identity Protection	A admin	

# INCIDENT EVIDENCE AND RESPONSE



#### Multi-stage incident involving Initial access & Defe...

Manage incident ? Ask Defender Experts . Comments and history

Assets (3) Investigations (0) Evidence and Response (16)

#### All evidence (9)

((o)) IP Addresses (8)

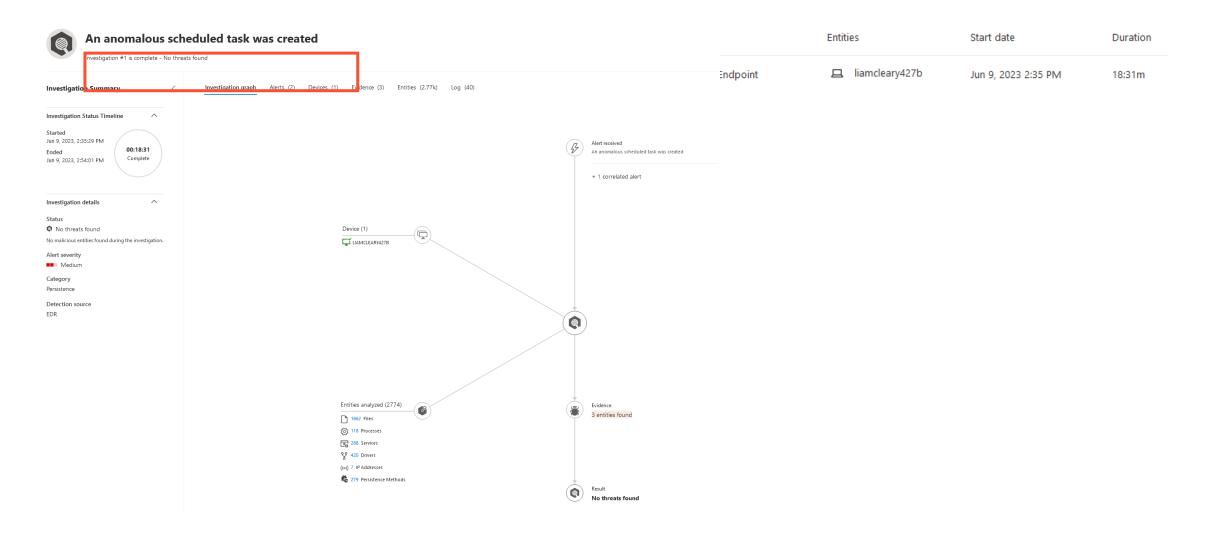
Cloud Logon Sessions (1)

				1-9 of 9 🖫 Choose columns 🗸 🗏 30 items per page 🗸 🎖 Filters		
~	First seen ↑	Entity	Verdict	Impacted assets	Detection origin	
	May 2, 2023 6:17 AM	((0)) 196.244.192.229	Suspicious		Activity from infrequent country	+2 alerts
	May 2, 2023 6:18 AM	(o) 91.90.123.181	Suspicious		Activity from infrequent country	+5 alerts
	May 2, 2023 6:18 AM	(o) 146.70.113.121	Suspicious		Activity from infrequent country	+2 alerts
	May 2, 2023 6:20 AM	(o) 103.157.139.6	Suspicious		Activity from infrequent country	+1 alerts
	May 2, 2023 6:23 AM	(o) 204.111.161.1	Suspicious			lerts
	May 2, 2023 6:23 AM	(o) 102.218.103.7	Suspicious		Activity from infrequent country	+1 alerts
	May 2, 2023 6:35 AM	MOD Administrator		A admin@msdx878906		
	May 2, 2023 6:35 AM	(o) 5.8.16.150	Suspicious		Activity from infrequent country	+1 alerts
	May 2, 2023 8:06 AM	((0)) 5.8.16.167	Suspicious			

### INCIDENT EVIDENCE AND RESPONSE

Alerts (16) Investigations (1) Evidence and Response (20) Attack story Assets (2) √ Filters 1-20 of 20 TR Choose columns 100 items per page All evidence (20) First seen ↑ Entity Verdict Detection origin Processes (16) Jun 9, 2023 2:32 PM schtasks.exe (5676) Suspicious schtasks.exe (3412) Jun 9, 2023 2:32 PM Suspicious Registry Values (2) (852) Isass.exe Jun 9, 2023 2:32 PM Suspicious WinATP-Intro-Backdoor.exe (3112) Jun 9, 2023 2:32 PM Suspicious svchost.exe (1384) Jun 9, 2023 2:32 PM Suspicious Jun 9, 2023 2:32 PM powershell.exe (820) Suspicious ⊗ WINWORD.EXE (2260) Jun 9, 2023 2:32 PM Suspicious (8340) reg.exe Jun 9, 2023 2:32 PM A suspicious file was observed Medium Suspicious RS4 WinATP-Intro-Invoice.docm Jun 9, 2023 2:32 PM Suspicious (5980) cmd.exe Jun 9, 2023 2:32 PM Suspicious A suspicious file was observed ■■■ Medium +1 alerts WinATP-Intro-Backdoor.exe Jun 9, 2023 2:32 PM Suspicious (1344) cmd.exe Jun 9, 2023 2:32 PM Suspicious behavior by cmd.exe was observed Medium Suspicious Troj Jun 9. 2023 2:32 PM Suspicious 

# INVESTIGATIONS



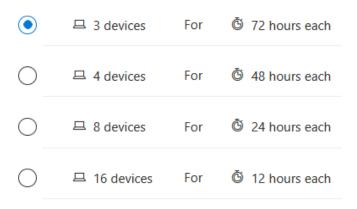
# CONCLUSION

### EVALUATION LAB

#### MICROSOFT 365 DEFENDER PORTAL > ENDPOINTS > EVALUATION LAB

#### Select your lab configuration

The following lab configuration options allows you to choose to run fewer devices for a longer period or more devices for a shorter period. When the allotted time is met, devices are automatically deleted.



When you've used up these devices and need more, you can submit a request for more devices. Once you've selected the configuration for the added devices, it cannot be modified. A deleted device can't be restored in any way and does not refresh the available test device count.

## RESOURCES



# AUTOMATED INVESTIGATION AND RESPONSE (AIR) IN MICROSOFT DEFENDER DOCUMENTATION

https://learn.microsoft.com/en-us/microsoft-365/security/office-365-security/air-about?view=o365-worldwide



#### OVERVIEW OF AUTOMATED INVESTIGATIONS

https://learn.microsoft.com/en-us/microsoft-365/security/defender-endpoint/automated-investigations?view=o365-worldwide



#### MICROSOFT 365 DEFENDER VIRTUAL NINJA TRAINING

https://adoption.microsoft.com/en-us/ninja-show

#### CONCLUSION

- 1 EXPLORE AUTOMATED INVESTIGATION AND RESPONSE (AIR)
- 2 EVALUATE YOUR REQUIREMENTS
- 3 PLAN YOUR DEPLOYMENT
- ENABLE AUTOMATED INVESTIGATION AND RESPONSE (AIR)
- MONITOR AND ADJUST AS REQUIRED



# How was the session?

Search for **365 EduCon** in the App Store or Google Play

Fill out the Session Surveys in the 365 EduCon App and be eligible to win PRIZES!





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