

YOUR HOSTS

Ready for 2026: Biggest Vulnerabilities & Cybersecurity Skills That Matter



Paula Januszkiewicz

CEO and Founder
Cybersecurity Expert
Microsoft RD and MVP

paula@cqure.us
X @PaulaCqure



Sami Laiho

Cybersecurity Expert
Microsoft MVP

sami@adminize.com
X @SamiLaiho



Amr Thabet

Cybersecurity Expert

amr@cqure.pl
X @Amr_Thabet



Marcin Krawczyk

Cybersecurity Expert

mkrawczyk@cqure.pl

Ready for 2026: Biggest Vulnerabilities & Cybersecurity Skills That Matter

Paula Januszkiewicz

CQURE: CEO, Cybersecurity Expert, Penetration Tester

CQURE Academy: Trainer

Microsoft MVP on Enterprise and Platform Security

Microsoft Regional Director

paula@cquire.us

X @PaulaCquire @CQUREAcademy

www.cquireacademy.com



Ready for 2026: Biggest Vulnerabilities & Cybersecurity Skills That Matter

Sami Laiho

CQURE: Cybersecurity Expert

CQURE Academy: Trainer

ADMINIZE: Founder, Senior Technical Fellow, CEO

Microsoft MVP on Windows and Devices, Security

sami@adminize.com

X @samilaiho



Ready for 2026: Biggest Vulnerabilities & Cybersecurity Skills That Matter

Amr Thabet

CQURE: Cybersecurity Expert

CQURE Academy: Trainer

amr@cquire.pl

✕ @Amr_Thabet



Ready for 2026: Biggest Vulnerabilities & Cybersecurity Skills That Matter

Marcin Krawczyk

CQURE: Cloud & Cybersecurity Expert

CQURE Academy: Trainer

mkrwczyk@cquire.pl



What does **CQURE** do?

1. Consulting Services:

- a) Extensive IT Security Audits and Penetration Tests of all kinds
- b) Configuration Audit and Architecture
- c) Design Social Engineering Tests
- d) Advanced Troubleshooting and Debugging
- e) Emergency Response Services

2. R&D & CQLabs Tools & Hacks Publications.

3. Trainings & Seminars:

- a) Offline (mainly via our partners worldwide)
- b) Online (you will hear more about it at the end of this webinar, so stay with us!)



To ensure **good quality** of your experience:

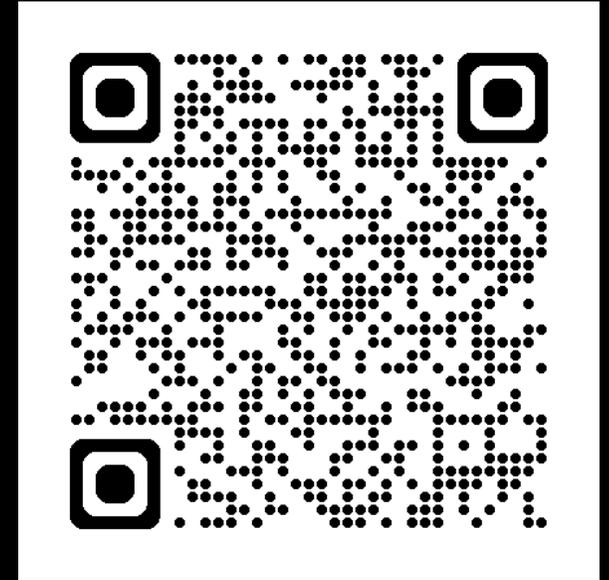
1. If you have **problems with watching the webinar**, try re-logging into Zoom session.
2. If the **streaming on Zoom breaks** for any reason, please observe the chat for news from our Team – we should be back shortly.
3. If there is a connection or software problem, please check your email inbox for instructions.
4. Should the problems persist, please let us know in the comment section or via email – info@cquireacademy.com.
5. We will be answering your questions at the end of the webinar during the **Q&A session**, so write them down in the chat!

What to expect today:

1. A presentation and technical demos from our Experts
2. Tips on how you can learn with us
3. Live Q&A!
4. You will get access to the tools we will be using here!

Time for **the challenge!**

One of the key emerging threats is prompt injection in LLMs. Developers often give AI access to various non-public information so that it has knowledge on a given topic and can answer user questions. Since LLMs work by predicting the most likely next word in the text and see the developer's instructions and the user's input the same way, we can craft prompts that make the LLM reveal different information it has access to. This challenge is about talking with an LLM simulator and using the right keywords to get the flag.

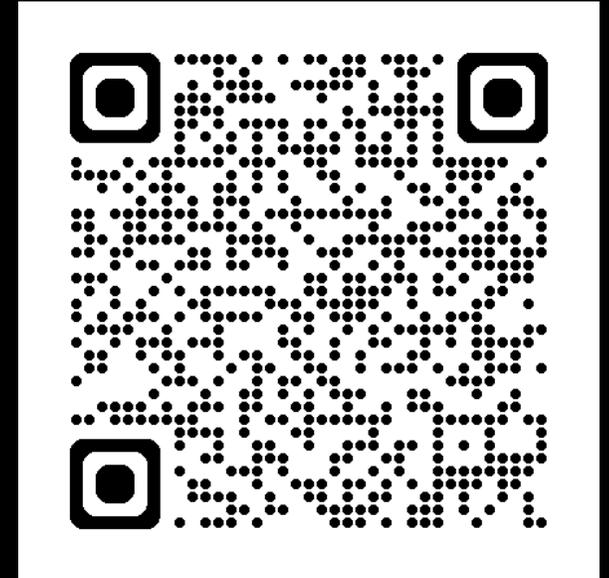


To answer, scan the QR or go to:

<https://cqureacademy.com/challenge2026/>

Challenge Instructions

1. Navigate to <https://llm-pi.cqure.ninja> and log in using `ctf_user:ctf_password`
2. Once logged in, a chat with the LLM simulator will appear.
3. Our message must contain the right keyword. We need to check which words and phrases make the LLM respond differently. There are several such words.
4. Upon finding the right word, the LLM will give us access to special commands. It's worth checking if the developers may have left some commands that are usually used in test environments.
5. Our goal is to determine which command will give us the flag. We can use other discovered commands to get hints.
6. After guessing the correct command, we will receive the flag.



To answer, scan the QR or go to:

<https://cqureacademy.com/challenge2026/>

Agenda

01

The best practices for safely disabling NTLM in Active Directory environments

Transitioning your organization to secure Kerberos authentication

Paula Januszkiewicz

02

Protecting Admin Access - Correct use of high privilege users & high privileged devices

Sami Laiho

03

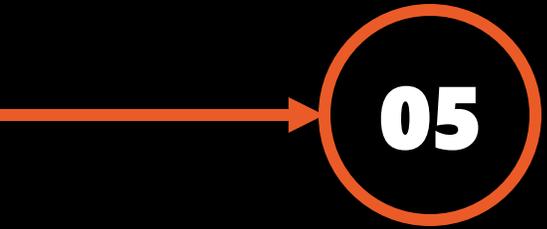
Detecting Malicious Activities Using Powershell

Amr Thabet

04

Secure Data Sources in Azure Cloud

Marcin Krawczyk



05

**Challenge
Feedback**

Q&A

Time to ask your questions

Ready for 2026: Biggest Vulnerabilities & Cybersecurity Skills That Matter

Paula Januszkiewicz

CQURE: CEO, Cybersecurity Expert, Penetration Tester

CQURE Academy: Trainer

Microsoft MVP on Enterprise and Platform Security

Microsoft Regional Director

paula@cquire.us

X @PaulaCquire @CQUREAcademy

www.cquireacademy.com



**Best practices for safely
disabling NTLM in AD
environments & secure
Kerberos
authentication**



In June 2024, Microsoft said:

"All versions of NTLM, including LANMAN, NTLMv1, and NTLMv2, are **no longer under active feature development and are deprecated."**

"Calls to NTLM should be replaced by calls to Negotiate, which tries to authenticate with Kerberos and only falls back to NTLM when necessary."

"[Update - November 2024]: NTLMv1 is removed starting in Windows 11, version 24H2 and Windows Server 2025."



NTLM Authentication

NTLM2

Client \leftarrow Server: SC
Client \rightarrow Server: $H(P, H'(SC, CC)), CC$
Server \rightarrow DomCntl: $H(P, H'(SC, CC)), H'(SC, CC)$
Server \leftarrow DomCntl: yes or no

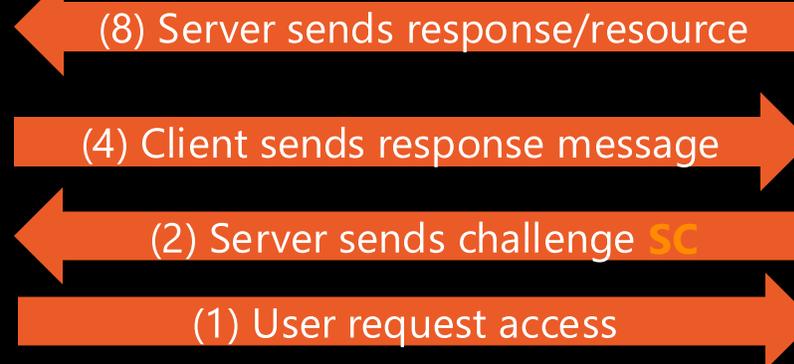
(3) Client calculates response **R** based on password hash



(6) DC calculate true response **TR** based on password hash from NTDS.dit

NTLMv1

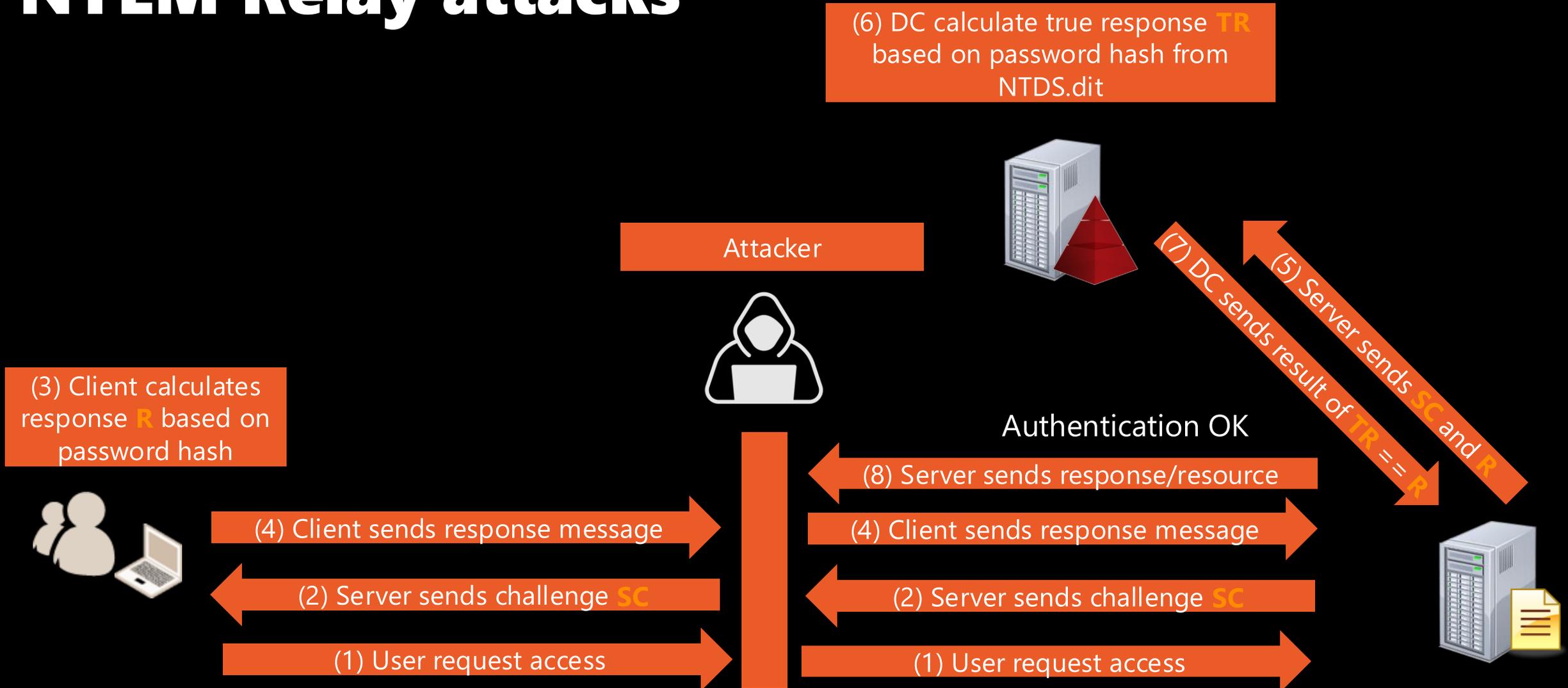
Client \leftarrow Server: SC
Client \rightarrow Server: $H(P, SC)$
Server \rightarrow DomCntl: $H(P, SC), SC$
Server \leftarrow DomCntl: yes or no



NTLM Versions

	LM	NTLMv1	NTLMv2
Password case sensitive	No	Yes	Yes
Hash key length	56bit + 56bit	-	-
Password hash algorithm	DES (ECB mode)	MD4	MD4
Hash value length	64bit + 64bit	128bit	128bit
C/R key length	56bit + 56bit + 16bit	56bit + 56bit + 16bit	128bit
C/R algorithm	DES (ECB mode)	DES (ECB mode)	HMAC_MD5
C/R value length	64bit + 64bit + 64bit	64bit + 64bit + 64bit	128bit

NTLM Relay attacks



Demo: NTLM Relay with Responder





Default Domain Policy [DC01.CQURE.LAB] Policy

- Computer Configuration
 - Policies
 - Software Settings
 - Windows Settings
 - Name Resolution Policy
 - Scripts (Startup/Shutdown)
 - Security Settings
 - Account Policies
 - Local Policies
 - Audit Policy
 - User Rights Assignment
 - Security Options
 - Event Log
 - Restricted Groups
 - System Services
 - Registry
 - File System
 - Wired Network (IEEE 802.3) Policies
 - Windows Defender Firewall v...
 - Network List Manager Policies
 - Wireless Network (IEEE 802.11) Policies
 - Public Key Policies
 - Software Restriction Policies
 - Application Control Policies
 - IP Security Policies on Active...
 - Advanced Audit Policy Config...
 - Policy-based QoS
 - Administrative Templates: Policy defi...
 - Preferences
 - User Configuration

Policy

Policy	Policy Setting
Network security: Force logoff when logon hours expire	Disabled
Network security: LAN Manager authentication level	Not Defined
Network security: LDAP client signing requirements	Not Defined
Network security: Minimum session security for NTLM SSP based (including secure RPC) clients	Not Defined
Network security: Minimum session security for NTLM SSP based (including secure RPC) servers	Not Defined
Network security: Restrict NTLM: Add remote server exceptions for NTLM authentication	Not Defined
Network security: Restrict NTLM: Add server exceptions in this domain	srv01.cqure.lab,srv01
Network security: Restrict NTLM: Audit Incoming NTLM Traffic	Not Defined
Network security: Restrict NTLM: Audit NTLM authentication in this domain	Enable all
Network security: Restrict NTLM: Incoming NTLM traffic	Not Defined
Network security: Restrict NTLM: NTLM authentication in this domain	Deny all
Network security: Restrict NTLM: Outgoing NTLM traffic to remote servers	Not Defined
Recovery console: Allow automatic administrative logon	Not Defined
Recovery console: Allow floppy copy and access to all drives and all folders	Not Defined
Shutdown: Allow system to be shut down without having to log on	Not Defined
Shutdown: Clear virtual memory pagefile	Not Defined
System cryptography: Force strong key protection for user keys stored on the computer	Not Defined
System cryptography: Use FIPS compliant algorithms for encryption, hashing, and signing	Not Defined
System objects: Require case insensitivity for non-Windows subsystems	Not Defined
System objects: Strengthen default permissions of internal system objects (e.g. Symbolic Links)	Not Defined
System settings: Optional subsystems	Not Defined
System settings: Use Certificate Rules on Windows Executables for Software Restriction Policies	Not Defined
User Account Control: Admin Approval Mode for the Built-in Administrator account	Not Defined
User Account Control: Allow UIAccess applications to prompt for elevation without using the se...	Not Defined
User Account Control: Behavior of the elevation prompt for administrators in Admin Approval ...	Not Defined
User Account Control: Behavior of the elevation prompt for standard users	Not Defined
User Account Control: Detect application installations and prompt for elevation	Not Defined
User Account Control: Only elevate executables that are signed and validated	Not Defined
User Account Control: Only elevate UIAccess applications that are installed in secure locations	Not Defined

**Demo:
NTLM Enabled /
Disabled**



Ready for 2026: Biggest Vulnerabilities & Cybersecurity Skills That Matter

Sami Laiho

CQURE: Cybersecurity Expert

CQURE Academy: Trainer

ADMINIZE: Founder, Senior Technical Fellow, CEO

Microsoft MVP on Windows and Devices, Security

sami@adminize.com

X @samilaiho



**Protecting Admin
Access - Correct use of
high privilege users &
high privileged devices**



Components of PAM



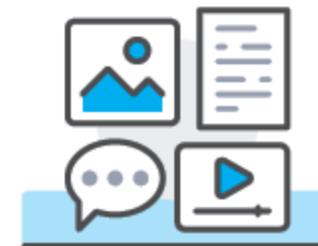
Shared access
password management



Privileged session
management



Vendor privileged
access management



Application access
management



PAW

(V)LAN1

Domain
Admins

Domain



PAW

(V)LAN2

Fabric
Admins

Fabric



PAW

(V)LAN3

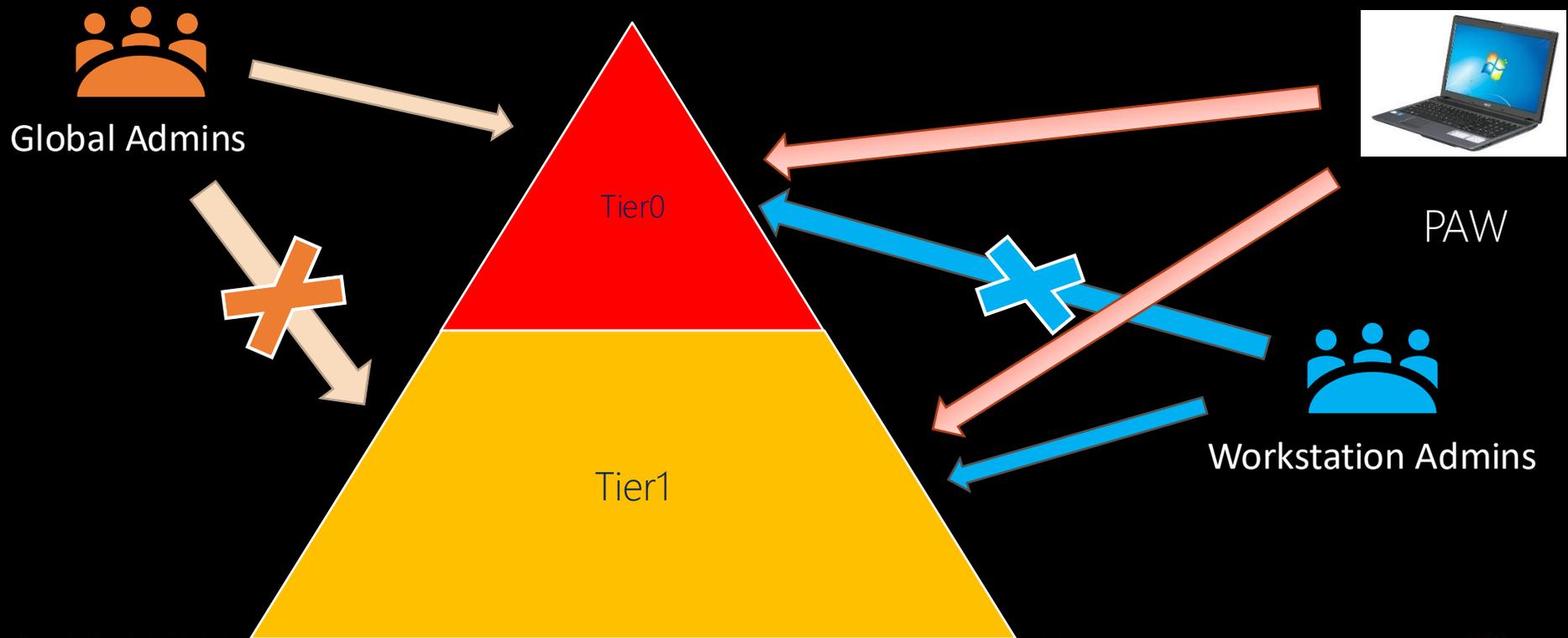
Backup
Admins

Backup

... or in the Cloud

Split your environment into two layers

Never allow higher layer admins to logon to lower layers



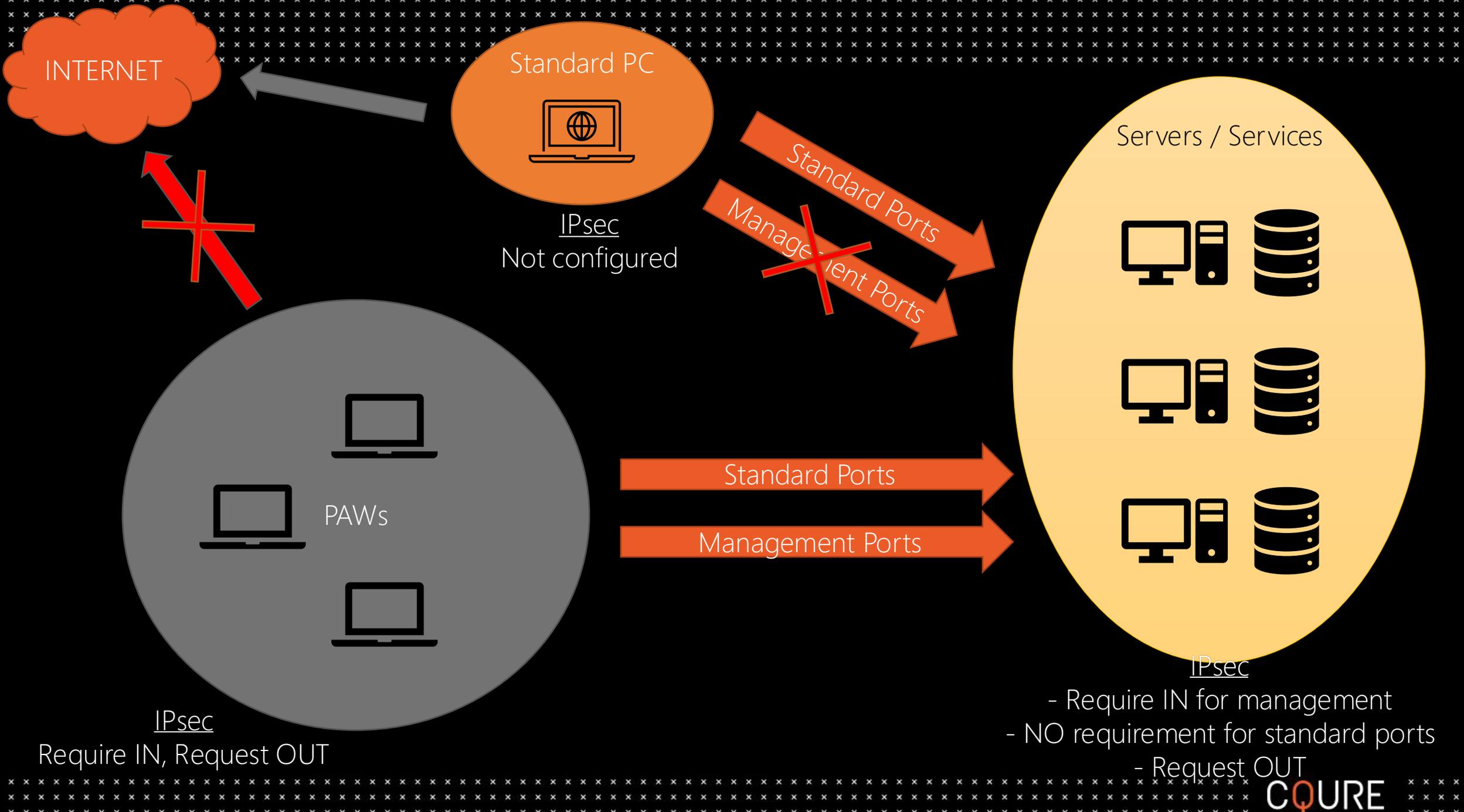


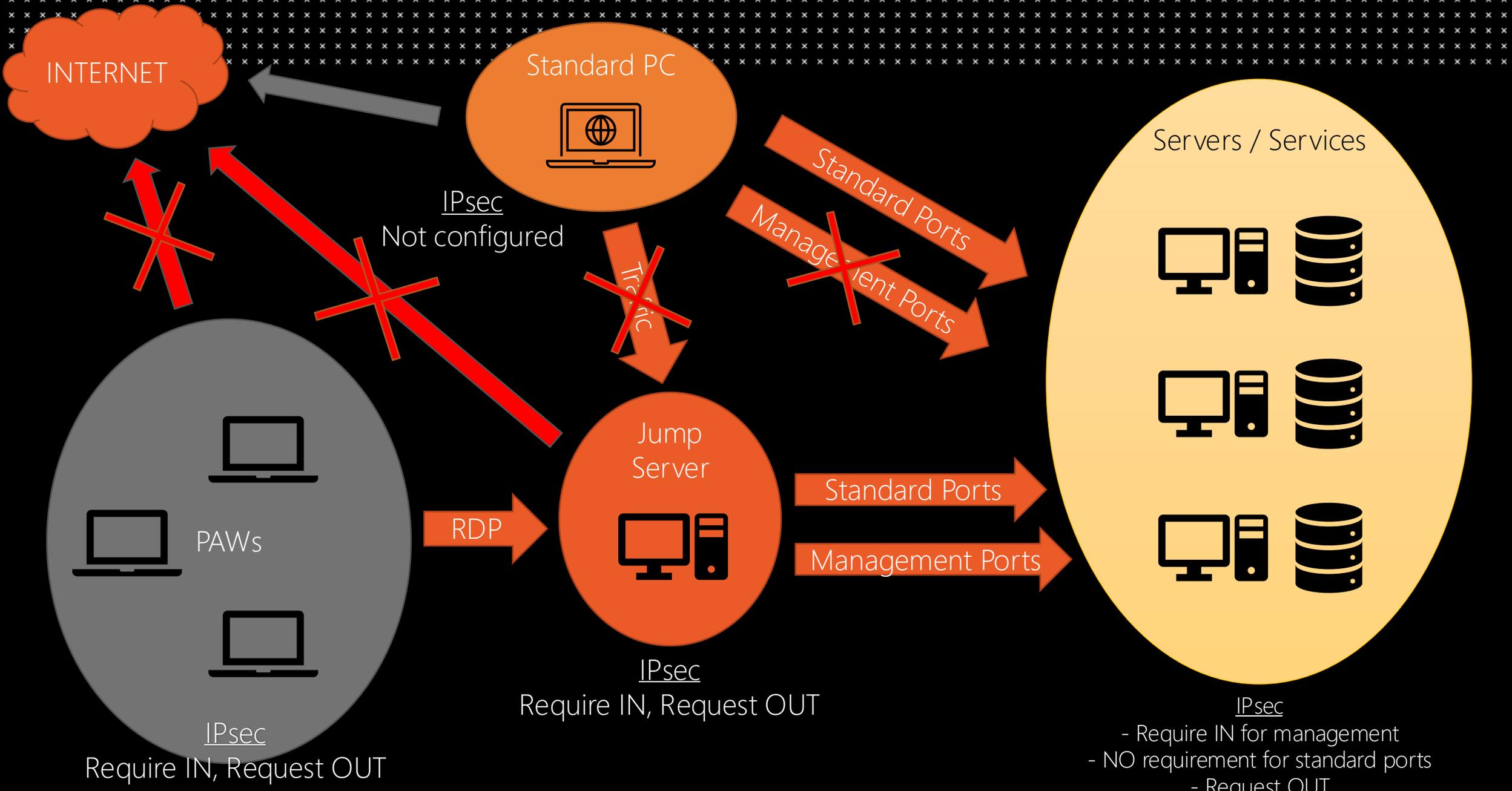
What are Tier 0 assets?

Good resource: <https://specterops.github.io/TierZeroTable/>

Privileged Access Workstation (PAW)

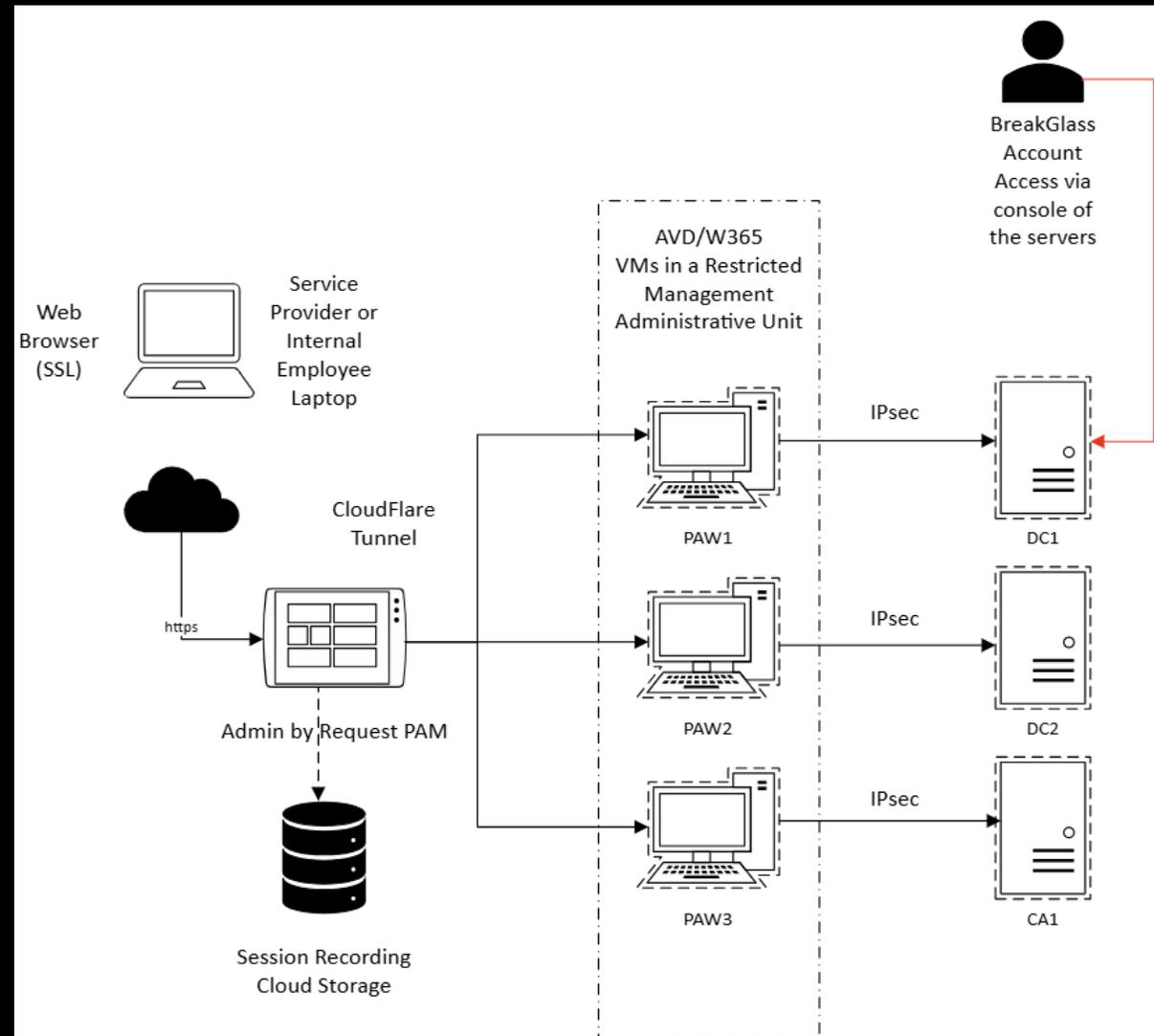






Example

- Outsourcing makes things... different...
- Remember: no PAM/PAW are the same as every environment is different



Privileged Identity Management (PIM)



Sami Laiho activated the Intune Administrator role for the Matti Laiho Oy Directory

View the activation history for this user in the Privileged Identity Management (PIM) portal.

[View history >](#)

Settings	Value
User or Group	Sami Laiho
Role	Intune Administrator
Resource	Matti Laiho Oy
Resource type	Directory
Activated by	Sami Laiho
Start	November 26, 2024 19:12 UTC
End	November 26, 2024 20:12 UTC
Justification	Because I can

Ready for 2026: Biggest Vulnerabilities & Cybersecurity Skills That Matter

Amr Thabet

CQURE: Cybersecurity Expert

CQURE Academy: Trainer

amr@cquire.pl

✕ @Amr_Thabet



Detecting Malicious Activities Using Powershell



Powershell For Investigations & Threat Hunting

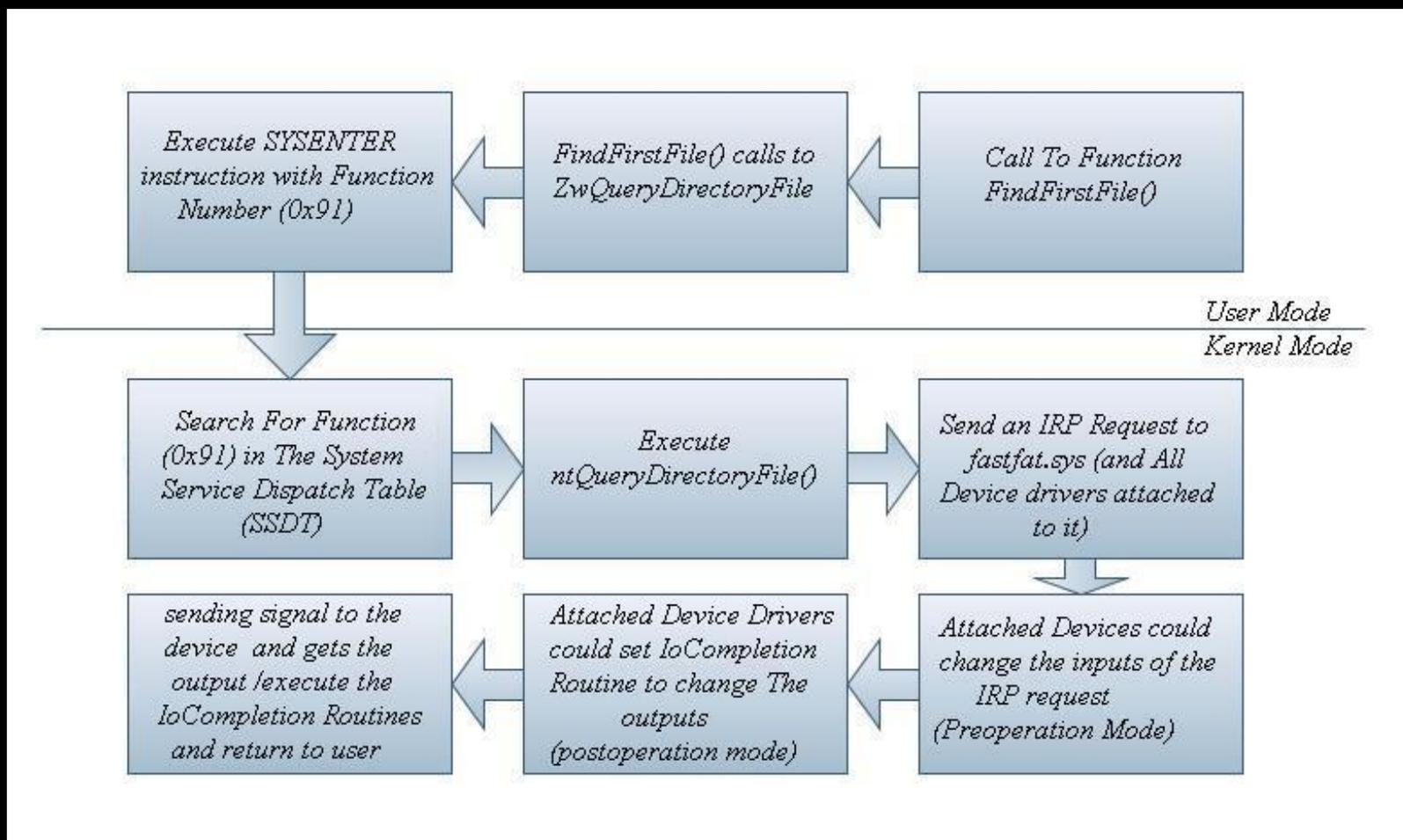




EDR is not as strong as you think

EDR hooks are visible to the malware and can be bypassed

Where EDR Hooks?





EDR is not as strong as you think

1. EDR hooks are visible to the malware and can be bypassed
2. EDR is light and real-time, missing a lot of memory scanning functionalities



EDR is not as strong as you think

1. EDR hooks are visible to the malware and can be bypassed
2. EDR is light and real-time, missing a lot of memory scanning functionalities
3. EDR always balances between false positives and negatives



Memory Forensics is not the only solution

1. Memory dumps takes a lot of time to capture and space to store
2. They are missing files' hashes and digital signatures
3. They are missing key non-volatile data like registry hives, MFT and Zone.Identifier

Why Powershell

1. Powershell remoting is safe
2. Doesn't leak credentials
3. Fast way to collect volatile and non-volatile data
4. Can perform packet capture, log collection, in-memory investigation and much more

What to do in Powershell investigation

Investigating attacks with PowerShell gives you the ability to go deeper into the system

It gives you the ability to automate across thousands of machines

All through a secure remoting protocol

We will look into:

1. Processes List and Loaded DLLs
2. Running Services
3. Scheduled Tasks
4. Network Connections
5. Non-Volatile Data (Registry, MFT ... etc)
6. Windows Event Logs
7. Installed Apps

Powershell Threat hunting

Hunting through Powershell gives us the ability to hunt for known malware techniques:

1. Malware disguised as svchost.exe (svchost should only run under services.exe)
2. Unknown or unsigned DLL (Probably injected, a suspicious extension, DLL side-loading)
3. URLs in commandlines (common for LOLBins type of fileless attacks)
4. Memory Injection or DLL injection (RWE private memory and probably starts with MZ)
5. Suspicious services (powershell or LOLBins related services)
6. Scheduled tasks with powershell or rundll32.exe, tasks with writable paths
7. Non-whitelisted/unknown Domains by non-browser application. Multiple domains by one application
8. Ngrok, team viewer or a remote-control app installed (not used by the company)
9. Maintaining persistence through registry.

Powershell Hunting – Zone.Identifier

You can read alternative stream like this:

```
Get-Content C:\Users\amrth\Downloads\xmrig.tar.gz:Zone.Identifier
```

Zone.Identifier stream is added by default by browsers to the downloaded files

They include the downloaded URL (which helps in finding the origin of this file)

Conclusions

Don't rely 100% on EDR and log analysis

Perform in-depth Powershell investigations and threat hunting

Look for malware patterns (process injection, autorun, token impersonation ... etc)

Watch out for legitimate tools used by malware (AnyDesk, Team Viewer, ngrok, rclone ... etc)

Ready for 2026: Biggest Vulnerabilities & Cybersecurity Skills That Matter

Marcin Krawczyk

CQURE: Cloud & Cybersecurity Expert

CQURE Academy: Trainer

mkraczk@cqure.pl



Secure Data Sources in Azure Cloud



Network Hardening for Key Vault

Best Practice: Private Endpoints

1. Projects your Key Vault directly into your Virtual Network (VNet) with a private IP.
2. Traffic **never** traverses the public internet.
3. The Key Vault is effectively invisible to the outside world.
4. **Alternative: VNet Service Endpoints**
5. Restricts access to traffic originating from a specific subnet.
6. Good, but the endpoint itself remains public.

Key & Secret Rotation

The Risk: A secret that never expires is a permanent backdoor.

1. **Secret Sprawl:** Old, forgotten credentials in config files, code, and CI/CD variables.
2. **Increased Blast Radius:** If a long-lived secret is compromised, the attacker has a long window of access.
3. **Manual Rotation Fails:** Relying on calendar reminders and manual processes is unreliable and prone to human error.

Implementing Automated Rotation

The Risk: A secret that never expires is a permanent backdoor.

1. **Secret Sprawl:** Old, forgotten credentials in config files, code, and CI/CD variables.
2. **Increased Blast Radius:** If a long-lived secret is compromised, the attacker has a long window of access.
3. **Manual Rotation Fails:** Relying on calendar reminders and manual processes is unreliable and prone to human error.

Managed Identity: The Token Risk

Managed Identities are the best practice for service-to-service authentication. **No passwords in code!**

The Misconception: "Passwordless" means there is no credential to steal.

The Reality: The credential is a short-lived OAuth 2.0 Bearer Token.

1. This token is like a temporary master key.
2. Anyone who holds ("bears") this token can use it to impersonate your service.
3. The new target for an attacker is not a password, but this token.

Diagnostic Settings: Incomplete Audit Trails

The Truth: You can't protect what you can't see.

Diagnostic Settings are your eyes and ears. They stream logs from Azure resources (Storage, SQL, Key Vault) to a Log Analytics Workspace.

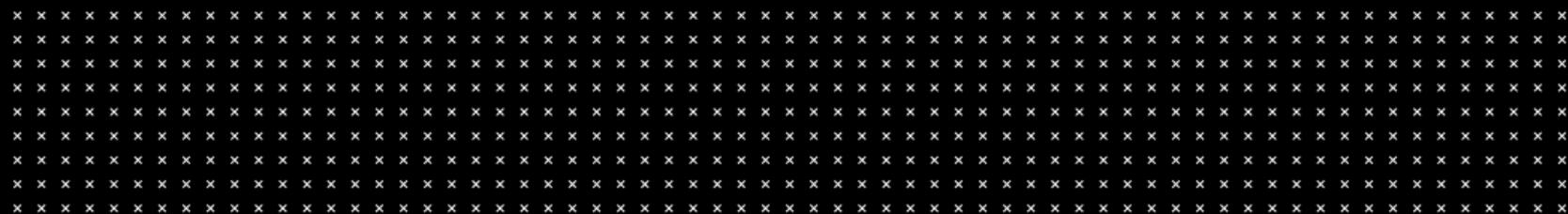
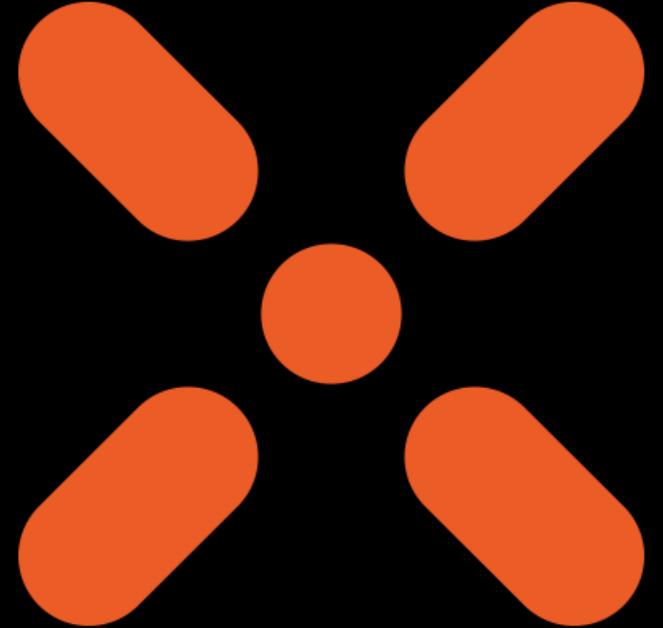
This is ESSENTIAL for threat detection and incident response.

The Risk: What if there are no logs for your most critical API?



**Do You Want to *Enhance* Your
Windows Security Knowledge?**

ADVANCED WINDOWS SECURITY COURSE 2026



CQURE



Is *this* course for you?



Intermediate/Advanced



Ethical hacker



Brave Newbies



What's *Really at Stake* If You Don't Level Up?



Failed Security Audits



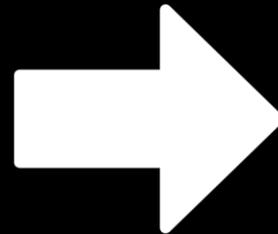
Successful Breaches



Career Stagnation



Budget Rejections



Become the Go-To Expert



Protect Company Assets

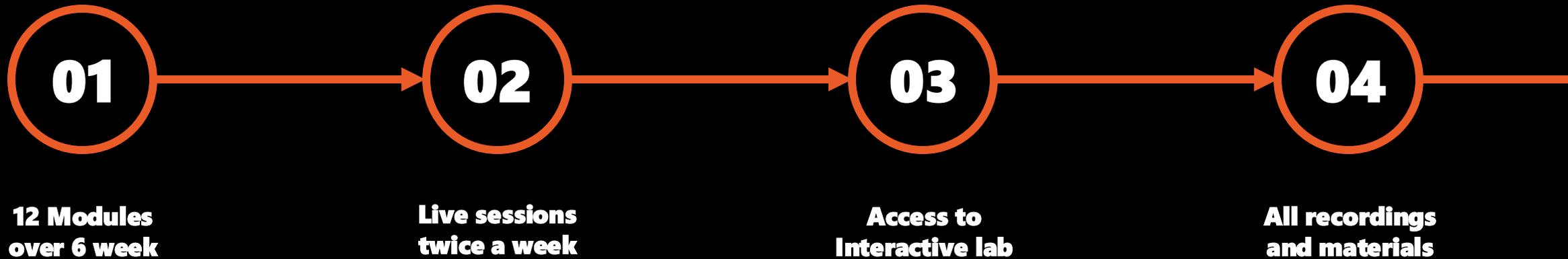


Unlock Career Growth



Build Executive Trust

What's inside **ADVANCED WINDOWS SECURITY COURSE 2026** ?



What's inside **ADVANCED WINDOWS SECURITY COURSE 2026** ?

05

**CQURE
Tools/Examples
Scripts**

06

**Discord
community**

07

**Final
certification**

You Could Do It Alone.

Or You Could Do It Right.

***Advanced Windows
Security Course is:***



Structured



Time efficient



Expert Led



Advanced **Windows Security** Course 2026



LIVE Trainings

You'll join our 2-hour long live classes on a special interactive platform – happening twice a week at 7PM CET (10 AM PST / 1 PM EST).



Action packed

You'll go through 12 modules in 6 weeks. We're not fluffing around, you've been warned.



Once a Year Only

We organize this course only once a year, in its last quarter. The 2026 edition is updated with latest trends, new tools, and challenges.



Extra Materials

We've prepared for you tools, slides, extra materials, and homework for each session.



12-month Access

You'll get a full year of online access to all the recordings counted from the first class.



The Training Lab

During the course, you'll have access to a special training platform where you can safely test your hacks.



Social & Network

You'll become a member of a closed Discord group, where you can not only share your challenges and geeky jokes, but also network.



CQURE Certificate – "Windows Security Master 2026"

You'll receive an official CQURE certificate "Windows Security Master 2026" after passing the final exam. Yes, there will be a final exam.



Interactive Classroom

After every class, you'll be able to ask questions.

Here's How to Apply



Application

Processing
Limited to 200 seats
only

Confirmation
Review within 5
working days

WEBINAR PARTICIPANTS DISCOUNT FOR AWSC26

SPECIAL PRICE

\$2199* **save \$1000 net**

**Valid only till September 19th, 2025*



<https://cqu.re/awsc26>

APPLY NOW
with code **READY**
PAY LATER.

Available
**BY APPLICATION
ONLY.**

**ADVANCED WINDOWS
SECURITY COURSE 2026**

***DISCOVER
THE BRAND NEW
AGENDA***

CQURE
ACADEMY

CQURE
CONSULTING

ADVANCED WINDOWS SECURITY COURSE 2026

October 28th - December 4th

COURSE AGENDA

Attack Case Studies and Building Incident Response Readiness Strategy

by Paula Januszkiewicz & Artur Kalinowski

Zero Trust in Practice: Building Secure Architectures Beyond the Perimeter

by Sami Laiho

Discover Your External Perimeter and Open Source Intelligence in Azure

by Przemysław Tomasik

AI Agents for Attack Investigation

by Amr Thabet

Azure Cloud Incident Response – Part 1: Detection

by Marcin Krawczyk

Azure Cloud Incident Response – Part 2: Response and Recovery

by Marcin Krawczyk

ADVANCED WINDOWS SECURITY COURSE 2026

October 28th - December 4th

COURSE AGENDA

Privileged Access Abuse in Databases: Detection and Defense

by Damian Widera

Real-World Pentesting: Windows Tips, Tricks, and Countermeasures

by Artur Kalinowski

PowerShell for Digital Investigation & Threat Hunting

by Amr Thabet

Tiering, Just-In-Time, and Admin Forest in "Real Life"

by Peter Kloep

How to Think About Azure Kubernetes Security

by Michał Furmankiewicz

Securing Windows Server and Applications in .NET with TLS:
Implementation, Pitfalls, and Best Practices

by Przemysław Tomasik

Your Instructors



Paula Januszkiewicz

Founder & CEO, Microsoft Regional
Director, MVP, MCT



Sami Laiho

Windows OS Expert,
MVP



Peter Kloep

Cybersecurity Expert, Principal
IT Architect

Your Instructors



Marcin Krawczyk

Cloud & Cybersecurity Expert



Amr Thabet

Cybersecurity Expert



Artur Kalinowski

Cybersecurity Expert

Your Instructors



Przemysław Tomasiak

Cybersecurity Expert



Damian Widera

Data Platform MVP, MCT,
Software Engineer,
Cybersecurity Expert

Ready to join?

APPLY NOW!



CQURE

WEBINAR PARTICIPANTS DISCOUNT FOR AWSC26

SPECIAL PRICE

\$2199* **save \$1000 net**

**Valid only till September 19th, 2025*



<https://cqu.re/awsc26>

APPLY NOW
with code **READY**
PAY LATER.

Available
**BY APPLICATION
ONLY.**

**CHALLENGE
WINNER**



Q&A Time!



**Visit our BLOG and discover more about
cybersecurity solutions & tools:**

<https://cquireacademy.com/blog>



DOWNLOAD THE TOOLS

<https://resources.cquireacademy.com/tools/>

Username: student

Password: CQUIREAcademy#123!

**If you want level up your
Windows Cybersecurity Skills**



JOIN OUR ONLINE TRAININGS