Protect Your Privilege: The Key Security Measures Administrators in M365 and Azure Should Take

NYMJCSC

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Eric on Identity

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Protect Your Privilege: The things to please do

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The Security vs Usability Struggle

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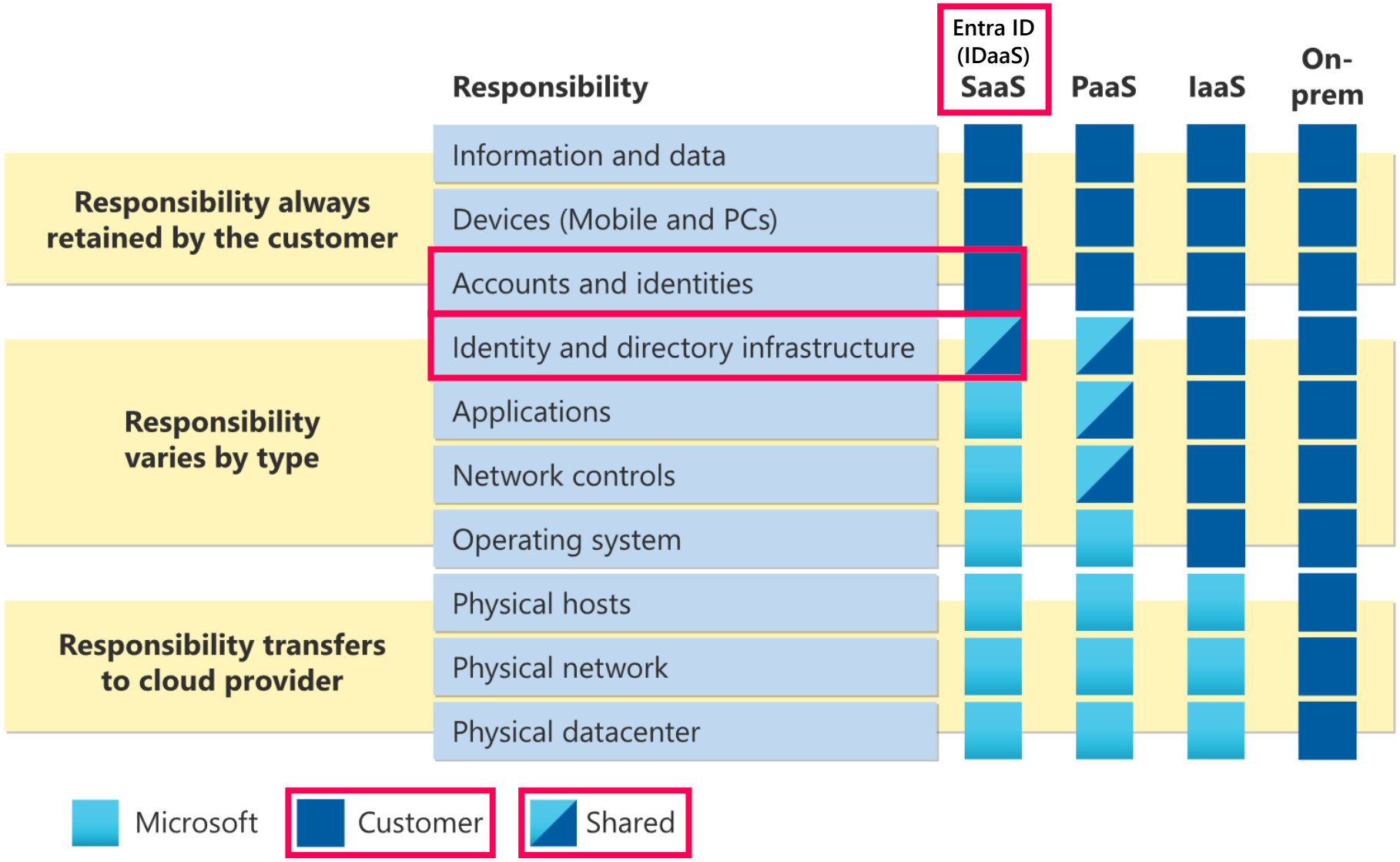
Why is this our problem…

The Shared Responsibility Model



Microsoft Digital Defense Report 2022

1

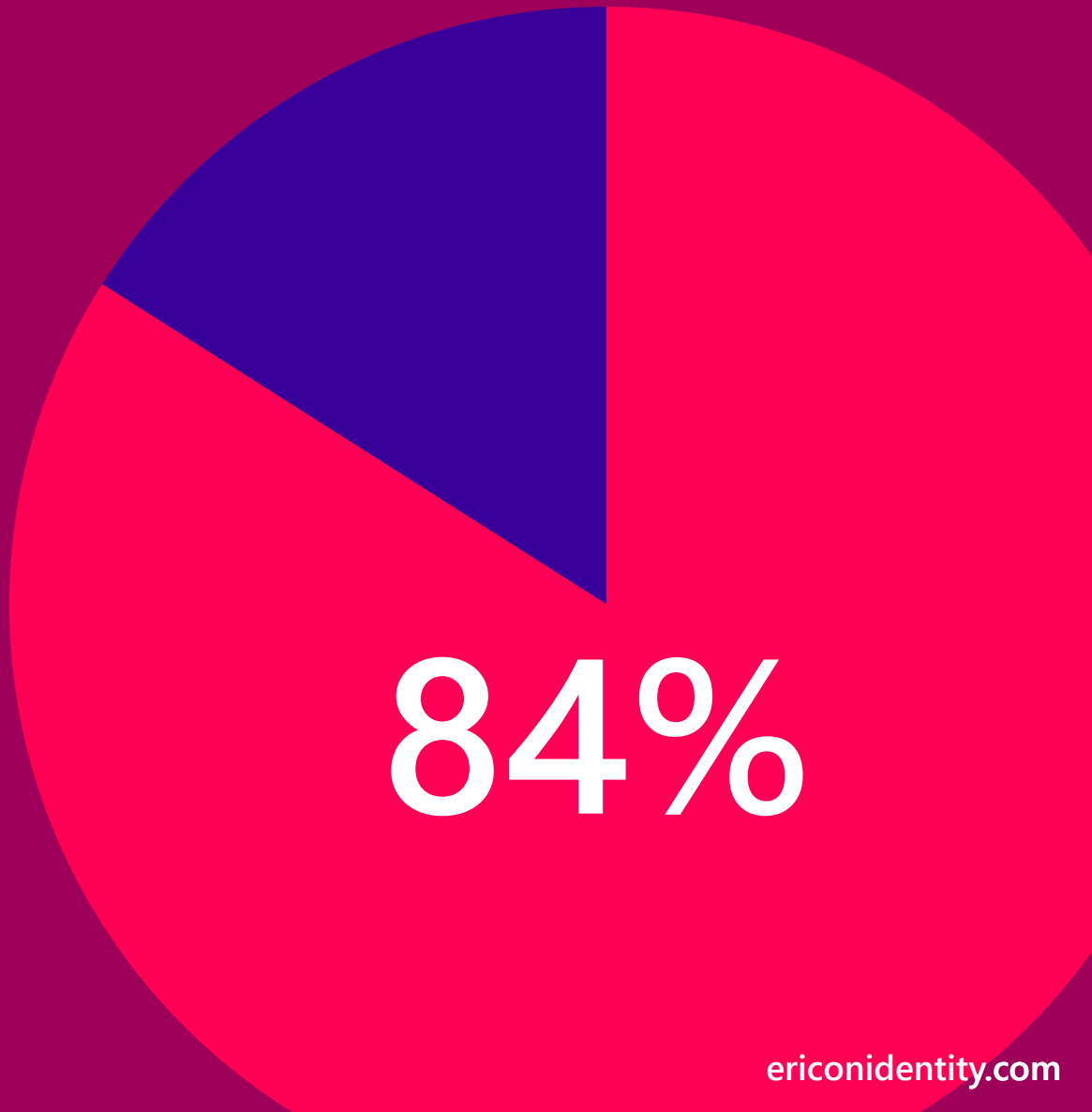
The number one contributing factor in onsite response engagements:

Weak identity controls[1]

[1]Microsoft Digital Defense Report 2022, page 15

Microsoft Digital Defense Report 2022

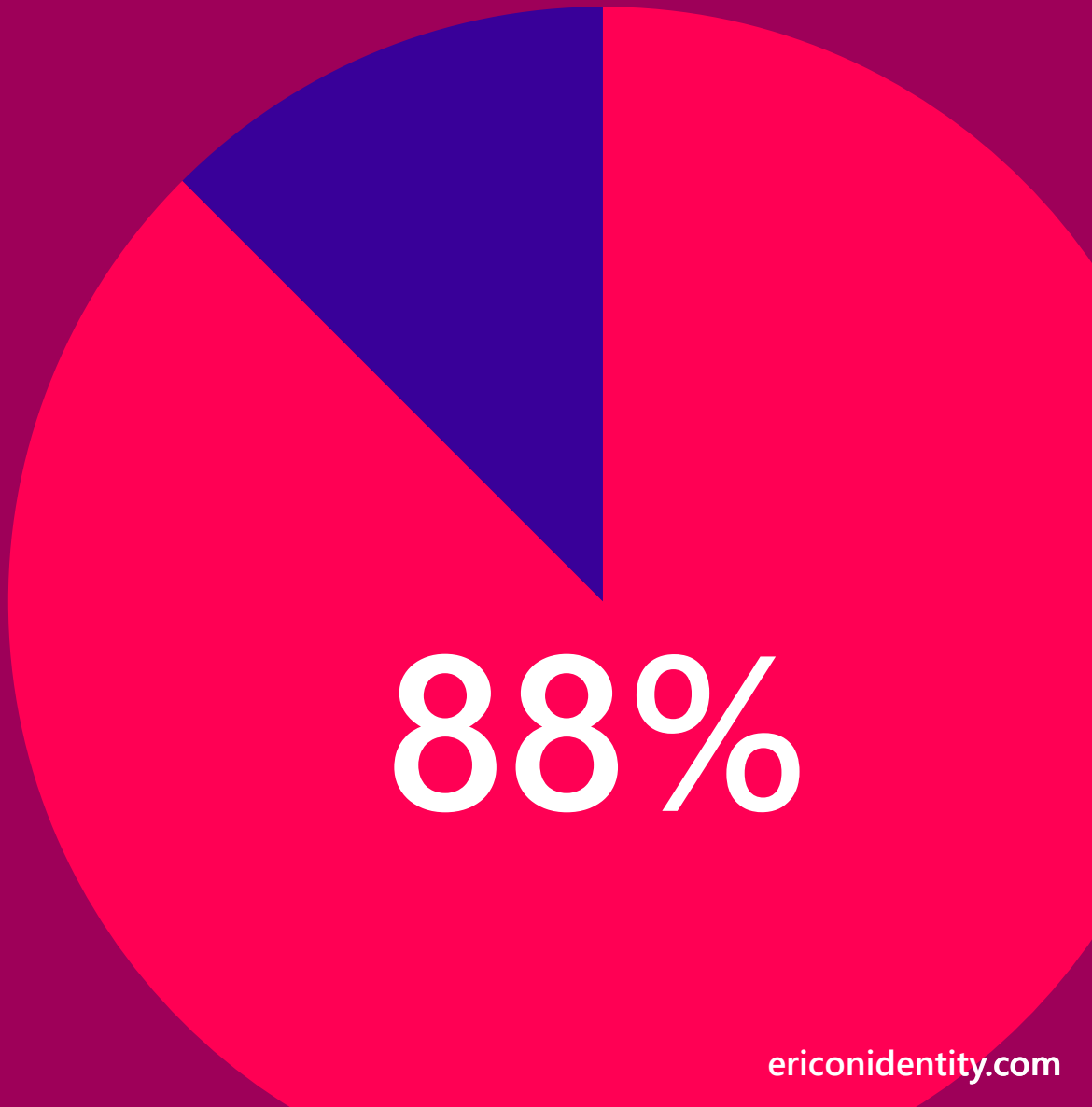
Administrators across organizations did **not** use **privileged identity controls**[1]



[1]Microsoft Digital Defense Report 2022, page 15

Microsoft Digital Defense Report 2022

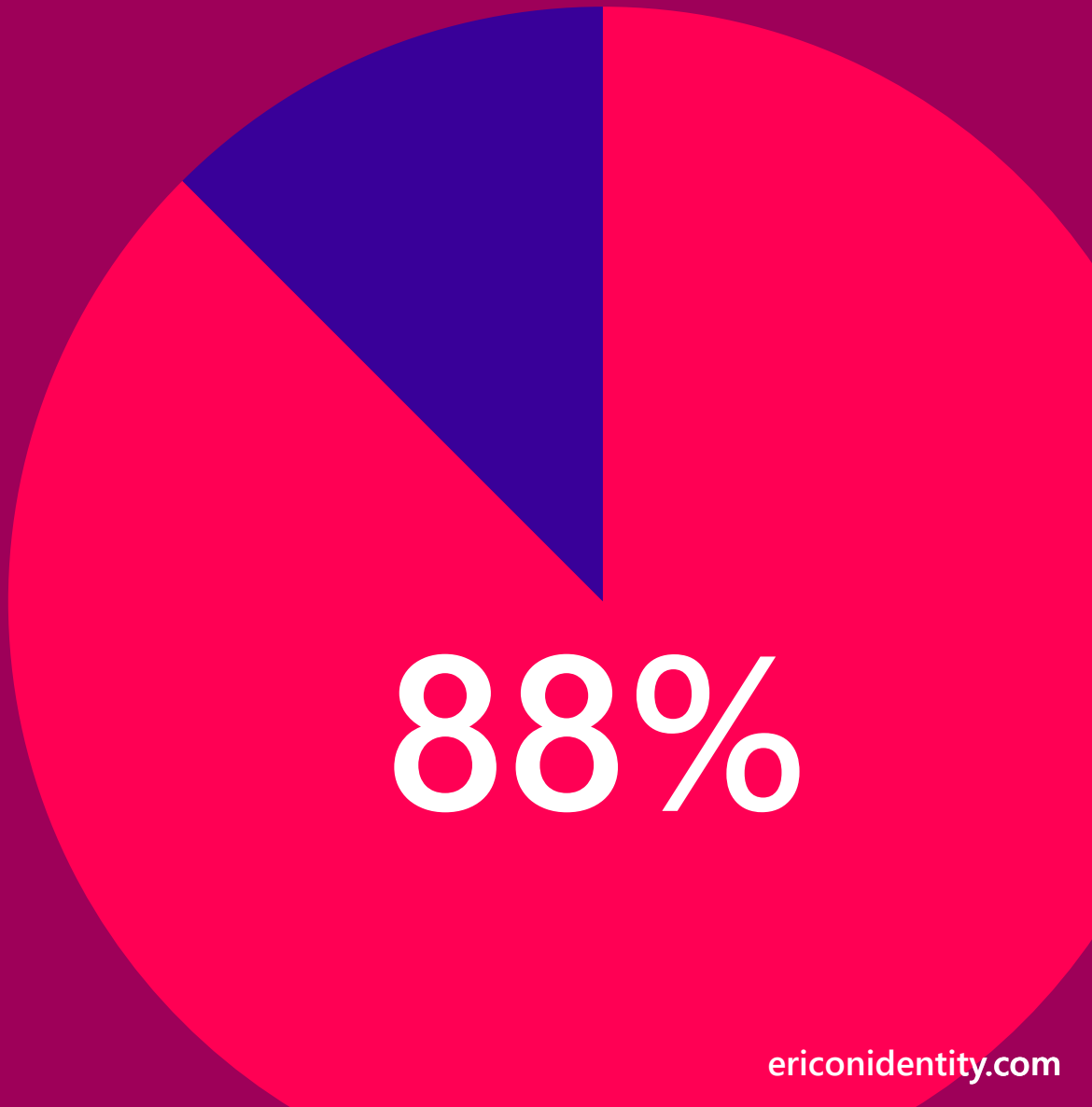
Did not employ AD and Azure AD security best practices[1]



[1]Microsoft Digital Defense Report 2022, page 15

Microsoft Digital Defense Report 2022

MFA was not implemented for sensitive and high privileged accounts[1]



[1]Microsoft Digital Defense Report 2022, page 15

Microsoft Digital Defense Report 2022

Did not implement proper least privilege principals via dedicated workstations[1]

100%

[1]Microsoft Digital Defense Report 2022, page 15

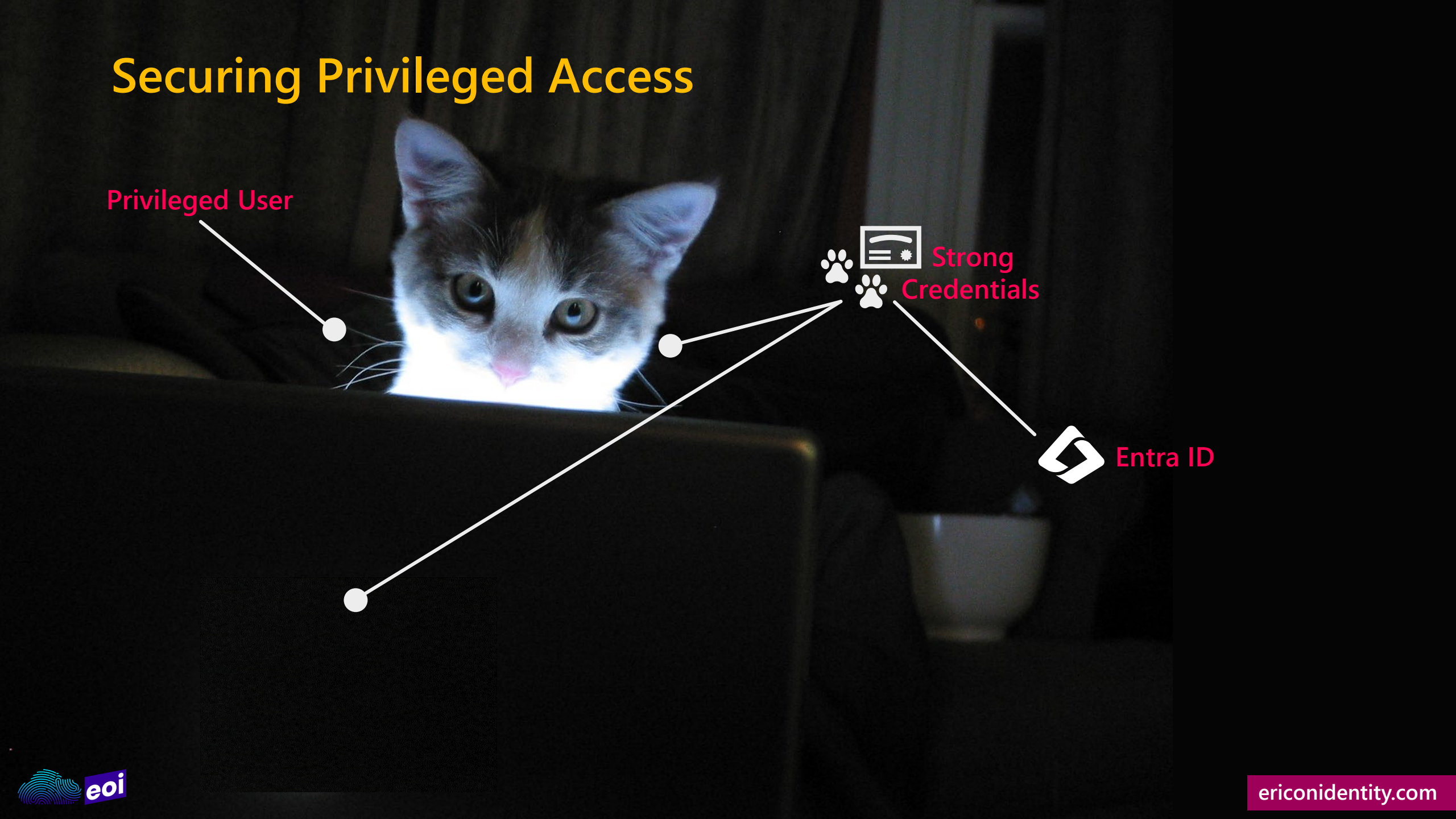
Securing Privileged Access

What is a privileged role?

Microsoft Defined Roles (21 roles)

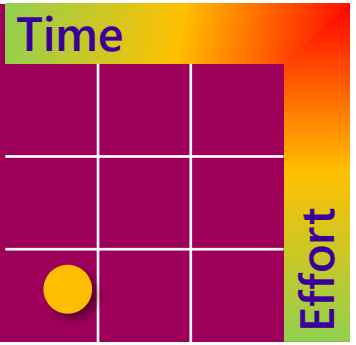
- Global Administrator
- Application Developer
- Authentication Administrator
- Authentication Extensibility Administrator
- B2C IEF Keyset Administrator
- Cloud Application Administrator
- Cloud Device Administrator
- Conditional Access Administrator
- Directory Synchronization Accounts
- Directory Writers
- Global Reader
- Helpdesk Administrator
- Hybrid Identity Administrator
- Intune Administrator
- Password Administrator
- Privileged Authentication Administrator
- Privileged Role Administrator
- Security Administrator
- Security Operator
- Security Reader
- User Administrator

Securing Privileged Access



Securing Privileged Access

Strong Credentials



- Dedicated Privileged Credentials
- Configured for mail-forwarding or not mail-enabled
- Cloud-native credentials sourced in Entra ID
- Phishing-resistant authentication
- Use P2 for privileged users

https://sl.entra.ms/spa1

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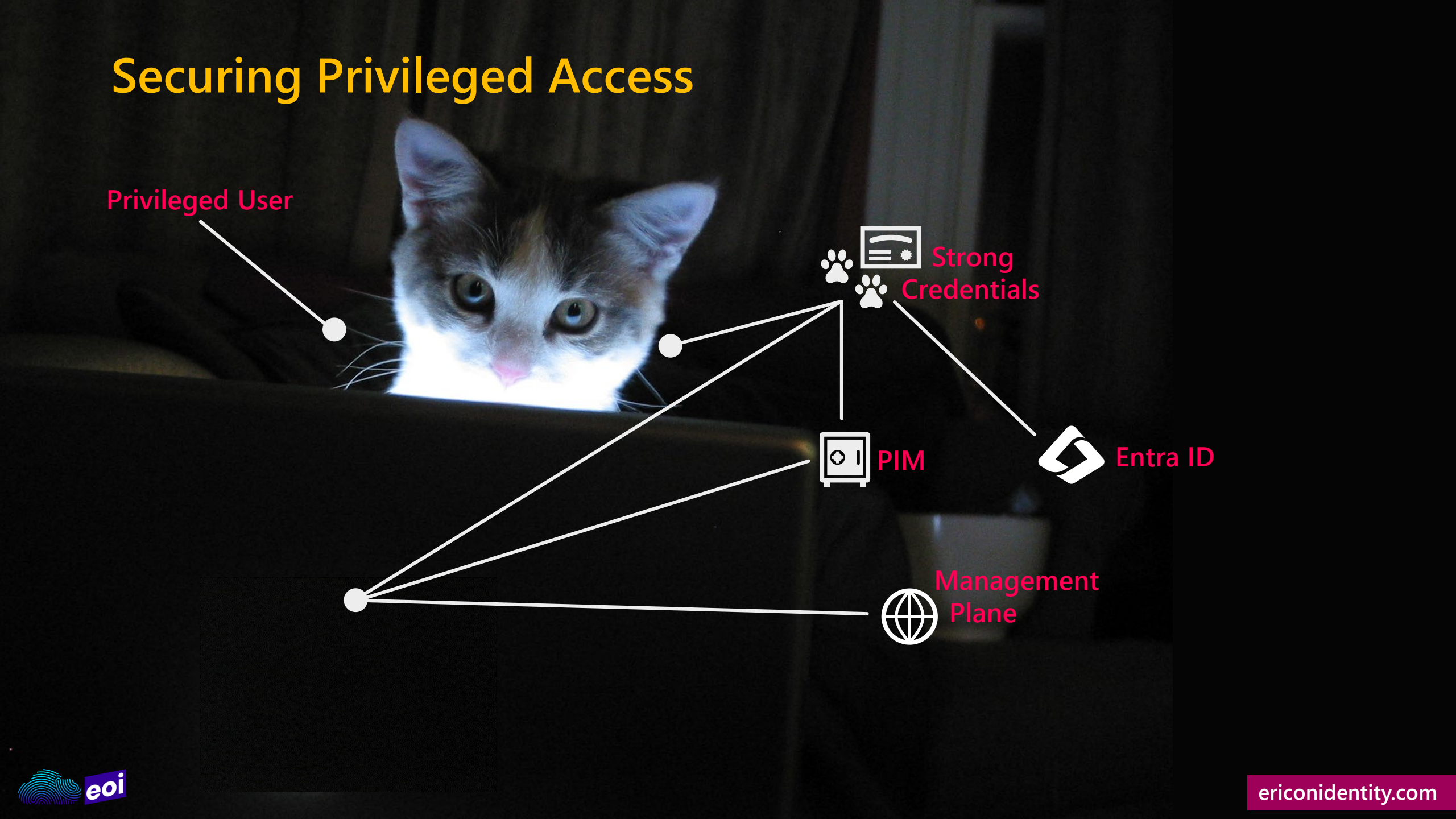
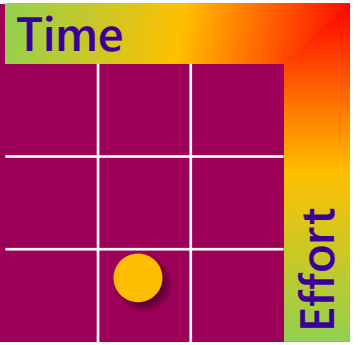
Securing Privileged Access



Securing Privileged Access

Privileged Roles



- Require PIM for privileged roles
- Limit activation duration to 1-2 hours
- Use PIM-enabled groups for privileged role flexibility
- Require authentication context over MFA for role activation
- Use service principals over users for applications that require privilege
- Audit and enforce least privileged roles
- Build governance processes around role assignment

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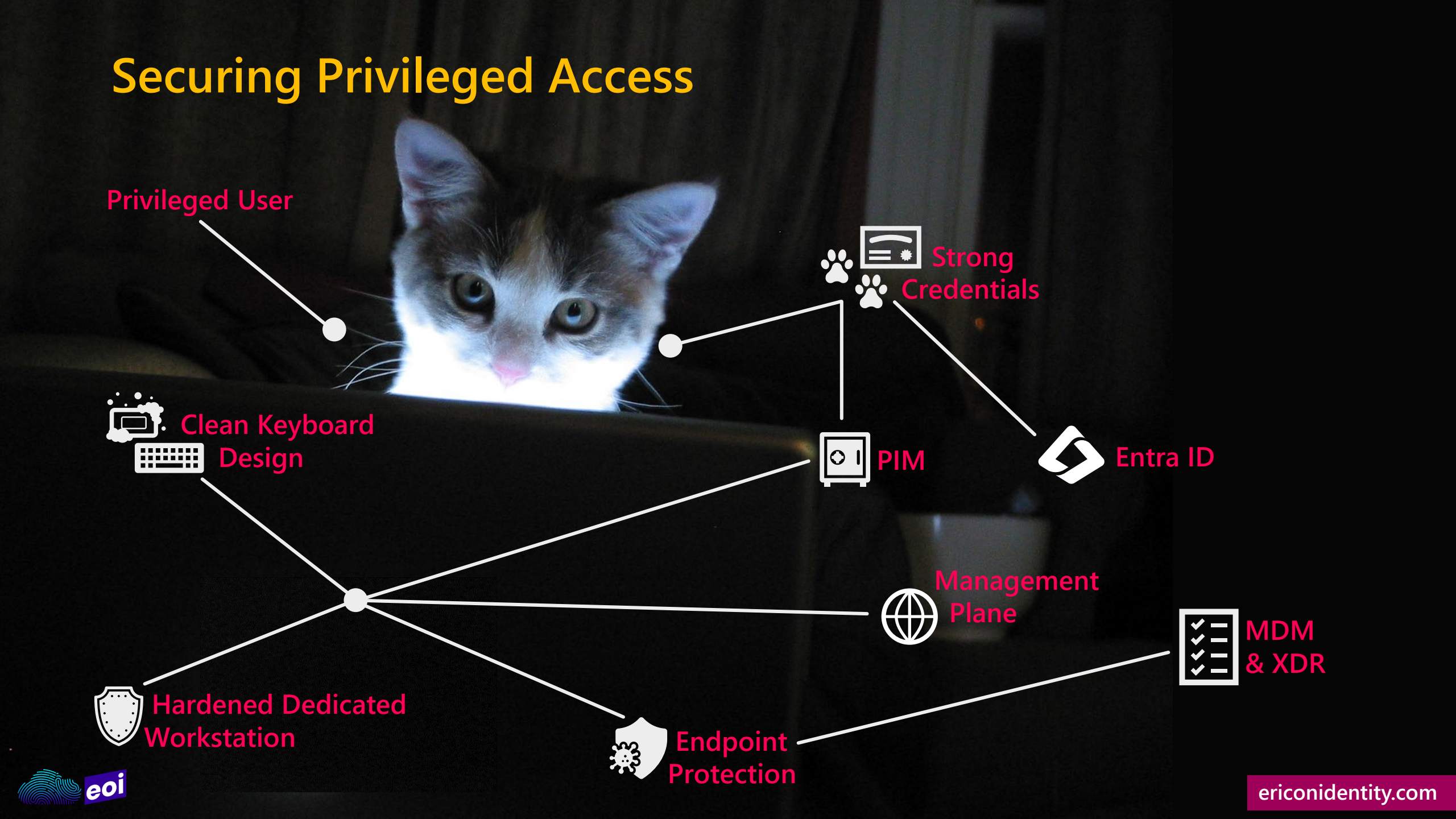
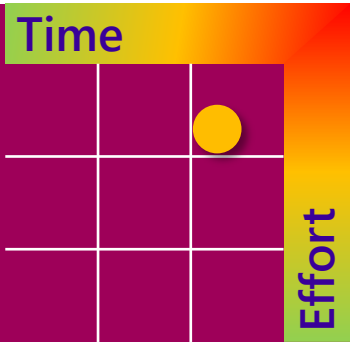
https://sl.entra.ms/spa2

Securing Privileged Access



Securing Privileged Access

Privileged Access Workstations



- Ensure that clean keyboard design is leveraged
- Follow hardening recommendations from Microsoft
- Devices follow a hardware root of trust
- User is not local administrator
- Device management team joins the privileged tier

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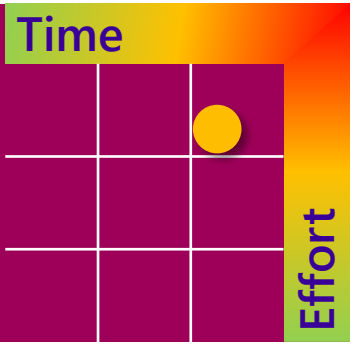
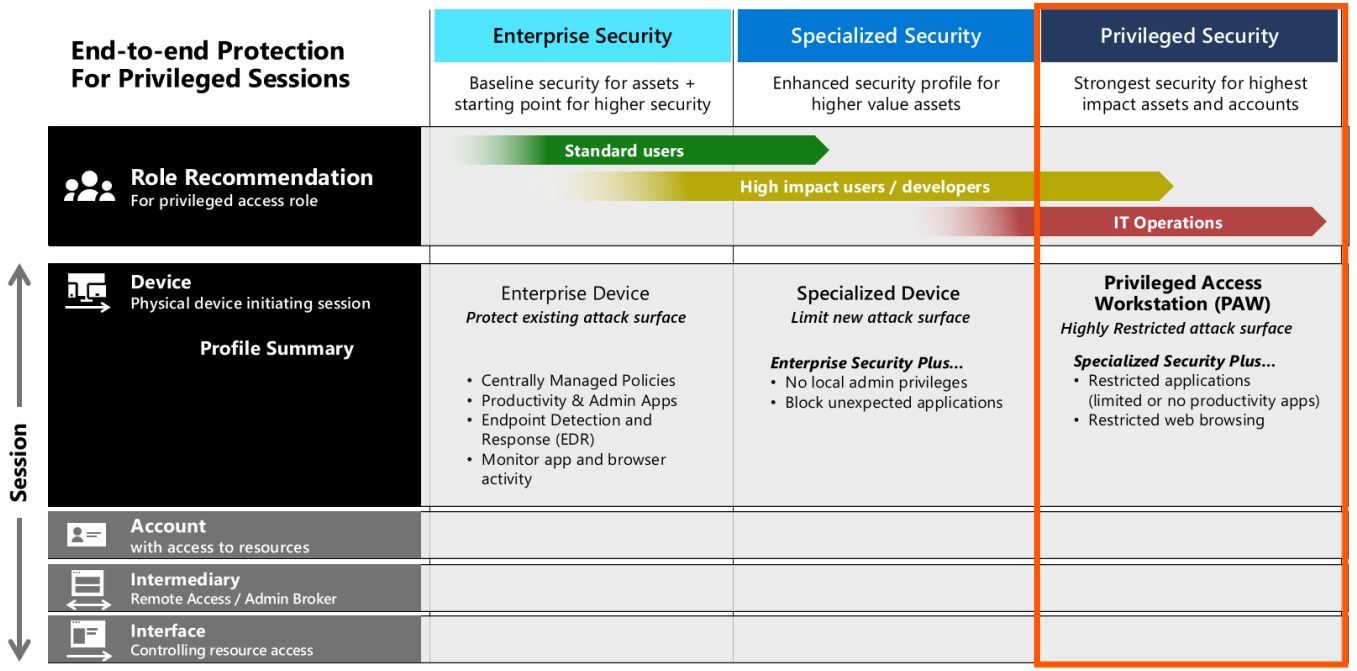
Securing Privileged Access

Privileged Access Workstations





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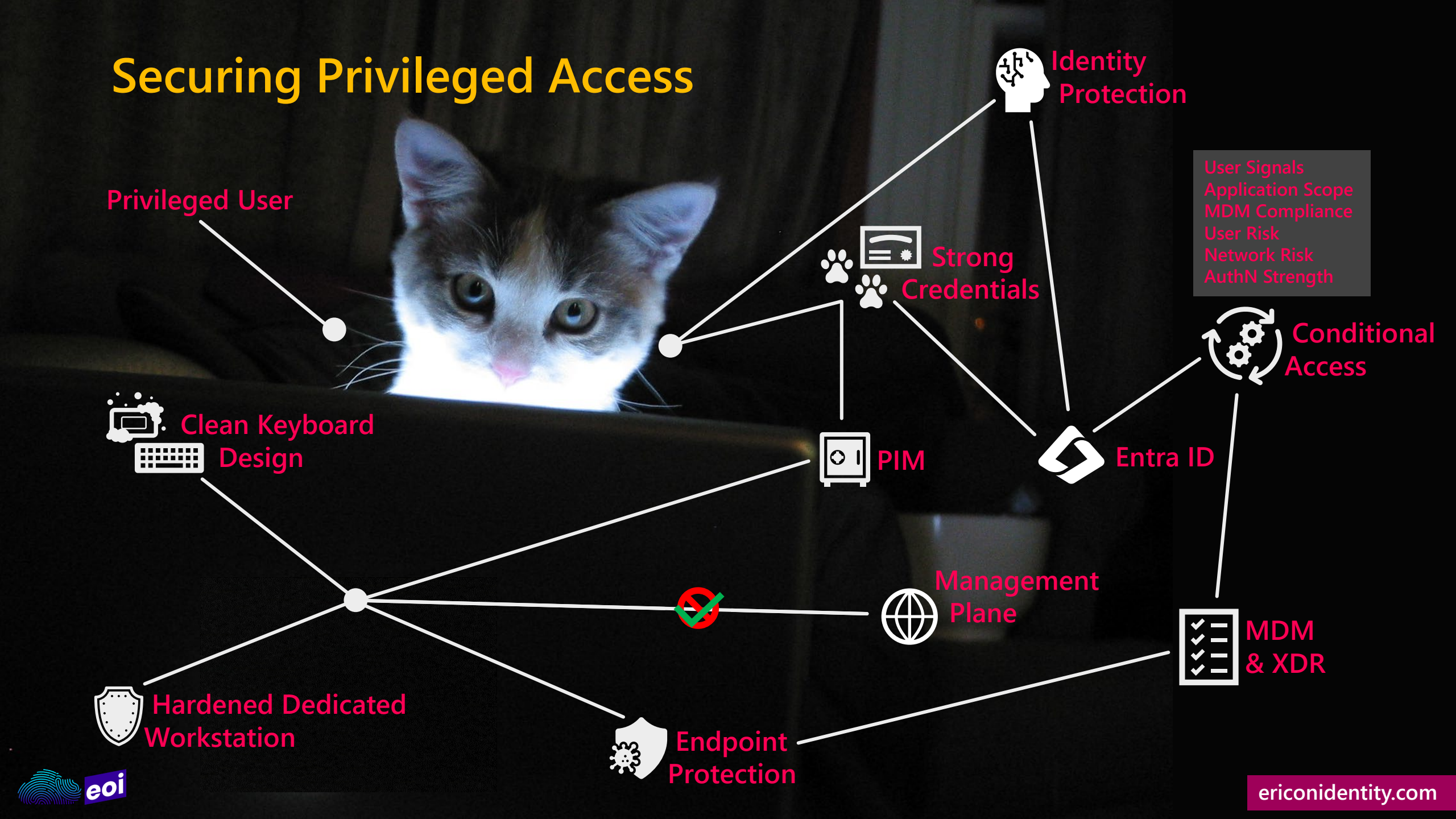
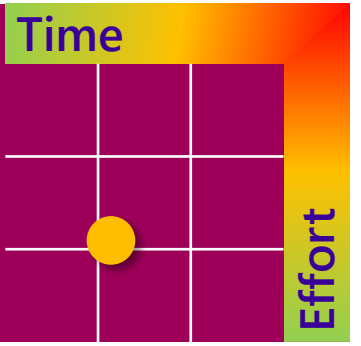
Securing Privileged Access



Securing Privileged Access

Conditional Access Enforcement



- Building robust CA policies leveraging:
  - Device compliance
  - Device filtering
  - Identity Protection
  - Strong authentication requirements
  - Network requirements
  - Sign-in frequency

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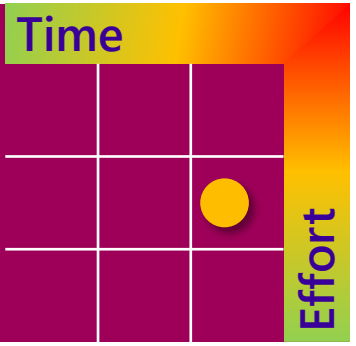
Securing Privileged Access

Conditional Access Enforcement



- For workloads and service accounts
  - Use Workload Identity Protection
  - Restrict access to trusted IP ranges

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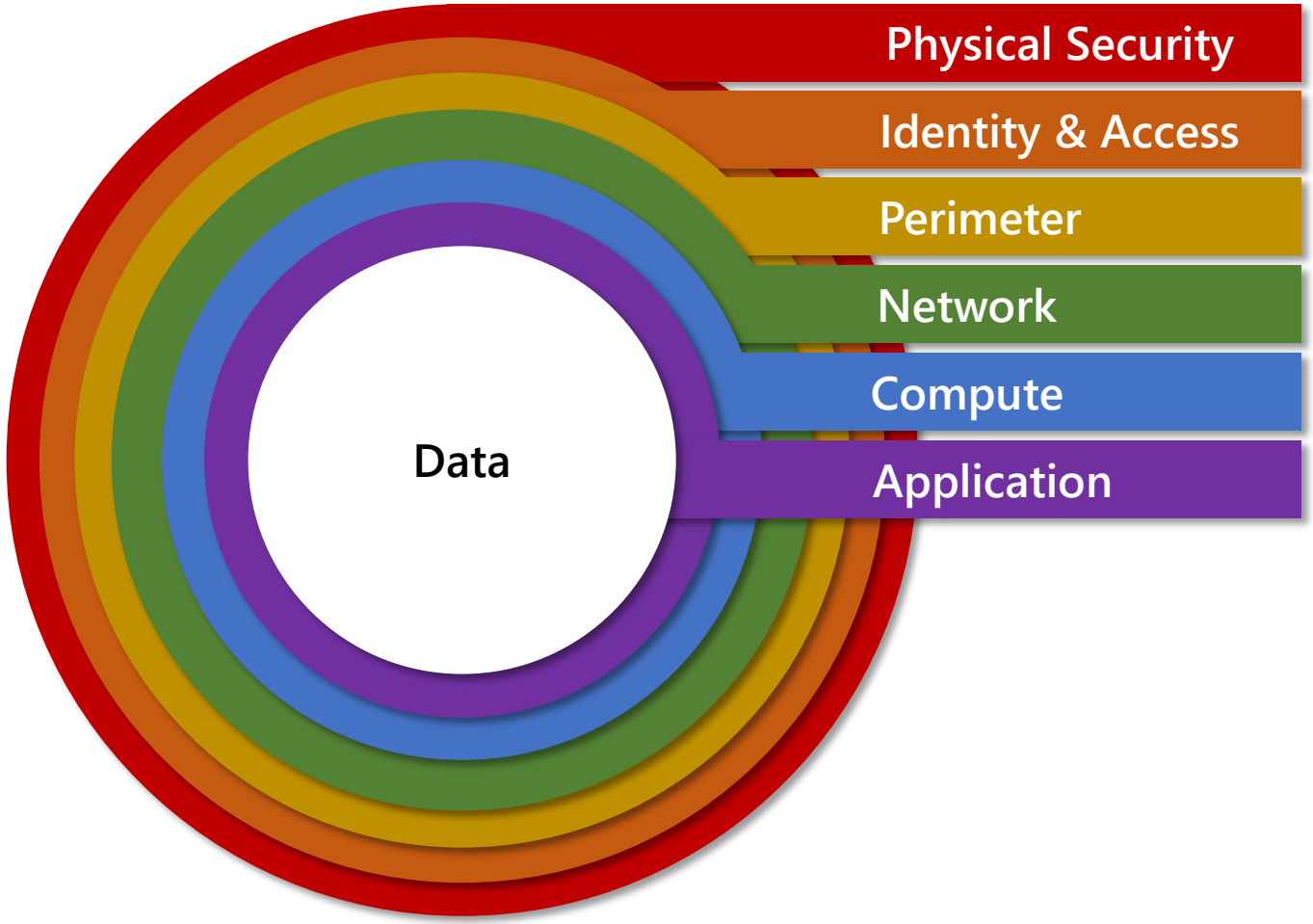
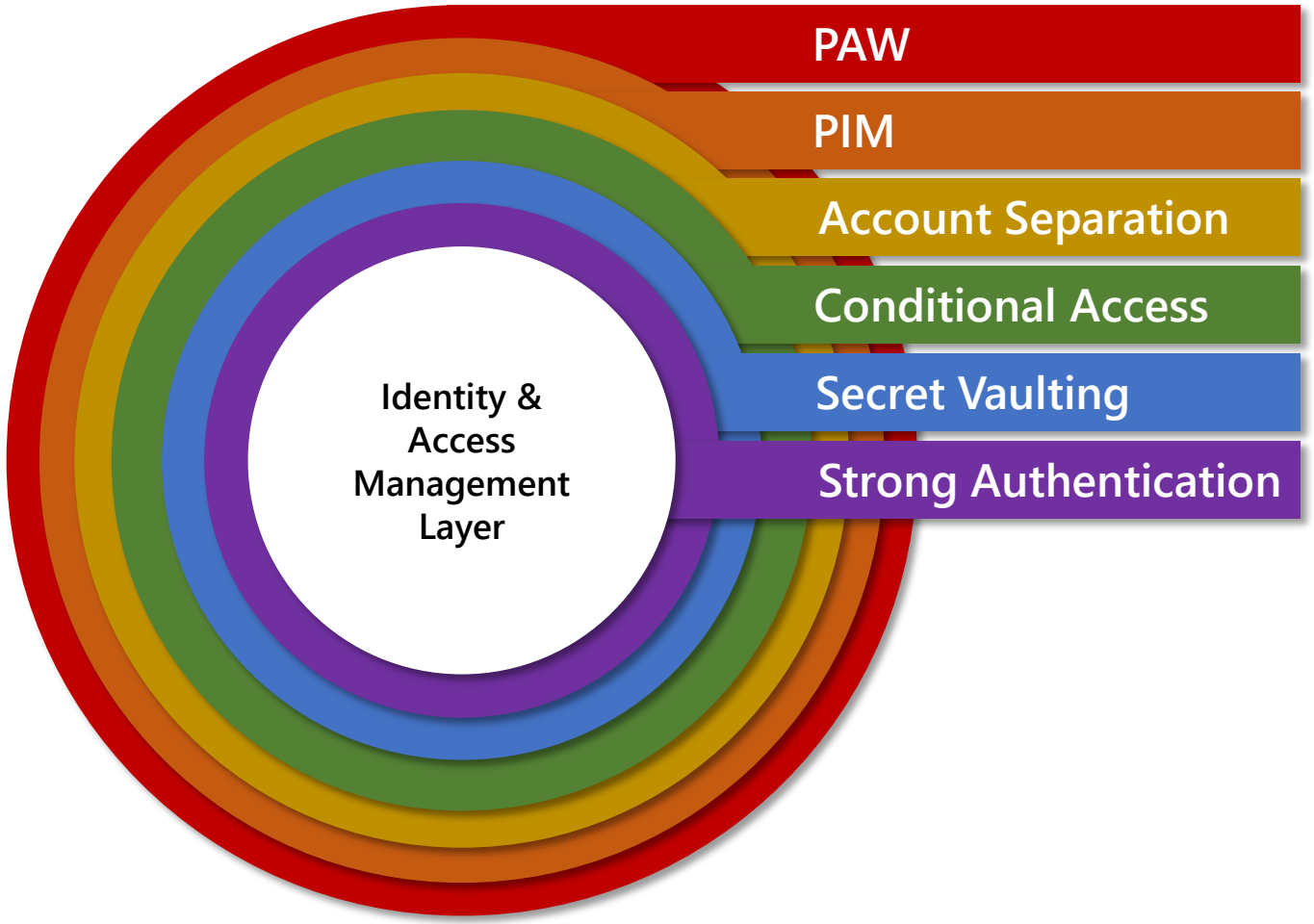
Defense in Depth

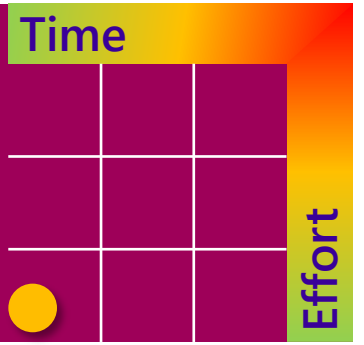


Defense in Depth



Securing Privileged Access

Break-glass Accounts



- Two break-glass accounts
  - One excluded in Conditional Access
  - One PIM permanent assignment
- Accounts should be highly monitored
- Passwords should be securely managed
- Device-bound passkey (FIDO2) may be an alternative

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Questions?