# Privileged Access Management (PAM) **Key Aspects and Emerging Trends in PAM**



# Key Aspects of Privileged Access Management (PAM)



### **Identity and Access Governance**



- Defining roles and permissions
- Ensuring least privilege access



#### **Two Important Factors the Next 3 Years:**

- Identity Fabric approach integrating various identity sources seamlessly.
- Policy-based automation of identity lifecycle management.





• Static access reviews performed periodically instead of continuous monitoring.



### **Privileged Account Discovery and Management**

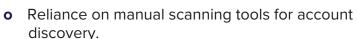


- Detecting and managing privileged accounts across
- Automated discovery tools for visibility



- Integration of discovery tools with Al for real-time privileged account monitoring.
- Automated deprovisioning of unused privileged accounts to minimize risk.





 Managing privileged accounts with long-term static credentials.



## Credential Vaulting and Rotation



- Securely storing privileged credentials
- Enforcing password rotation policies

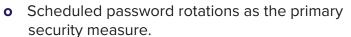


#### **Factors the Next 3 Years:** • Full transition to passwordless authentication for

**Two Important** 

- privileged access.
- Secure enclave-based credential storage to reduce attack surface.





• Storing credentials in on-premise-only vaults without cloud accessibility.



# **Session Management and Monitoring**



- Recording and monitoring privileged sessions
- Implementing just-in-time access controls



#### **Two Important** Factors the Next 3 Years:

- Real-time behavioral analytics integrated with session monitoring.
- Zero-trust-based session validation for every privileged activity.





• Session monitoring without Al-driven anomaly detection.



# Multi-Factor Authentication (MFA) for Privileged Access



- Adding additional security layers for privileged users
- Adaptive authentication based



#### **Two Important Factors the Next 3 Years:**

- o Continuous authentication based on user behavior and context.
- Use of hardware security keys and biometric authentication over passwords.

#### **Two Aspects No Longer Relevant in 3 Years:**

- SMS-based MFA due to security vulnerabilities.
- One-time passwords (OTP) as the primary authentication method.

@bertblevins













### **Just-In-Time (JIT) Access Management**



- Granting temporary privileged access as needed
- Reducing standing privileges and exposure



#### **Two Important Factors the Next 3 Years:**

- Al-driven risk-based JIT provisioning.
- Self-service JIT access with automated approval workflows.



- Static, pre-assigned privileged access roles.
- Manual approval processes for privileged access requests.



### **Privileged Access Risk Analytics**



- Using AI/ML for behavior-based risk assessment
- Detecting anomalies and potential insider threats



#### **Two Important Factors the Next 3 Years:**

- Autonomous response to risky privileged
- Deep learning-driven anomaly detection with contextual awareness.



#### **Two Aspects No Longer Relevant in 3 Years:**

- Threshold-based anomaly detection models with static rules.
- Reactive security responses instead of proactive threat mitigation.



### Cloud and Hybrid PAM Integration



- Extending PAM capabilities to multi-cloud environments
- Managing non-human identities (NHIs) like service accounts and APIs



#### **Two Important Factors the Next 3 Years:**

- Centralized PAM for hybrid and multi-cloud environments.
- Automated identity governance for cloud workloads.



- PAM systems designed only for on-premise environments.
- Manual tracking of cloud service identities.



# Third-Party and Remote Access Management



- Securing vendor and contractor access
- Implementing zero-trust principles for external users



#### **Two Important Factors the Next 3 Years:**

- Al-driven risk assessment for third-party access.
- Integration of continuous authentication for external users.



- VPN-based third-party access without real-time monitoring.
- Static access provisioning for contractors.



# **Compliance and Audit Reporting**



- Ensuring adherence to industry regulations
- Automating reporting for audits and compliance checks



#### An Important **Factor the Next 3 Years:**

• Al-driven real-time compliance reporting.

#### **Two Aspects No** Longer Relevant in 3 Years:



- Periodic manual audits instead of continuous compliance monitoring.
- Siloed compliance reporting without centralized governance.

As PAM continues to evolve, the focus will shift towards Al-driven automation, adaptive security, and seamless integration with zero-trust frameworks. Organizations must stay ahead by adopting next-gen PAM solutions to protect their critical assets effectively.



