Jumpstart Your Privileged Account Management (PAM) Program

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About me

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- Started IT as a Unix admin in the early 1990’s
- Moved into IT security and IAM in 2007
- Worked with my first PAM system in 2010

Jumpstart your privileged account management (PAM) program

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Agenda

- What is PAM?
- Steps to implement PAM
- Maturity over time
- PAM automation
- Account discovery
- Overcome obstacles
- Takeaways

What is a PAM tool?

A PAM tool will have many features used to mitigate risks and control access to privileged accounts.

- Manage credentials
- Track and monitor privileged activity
- Control access
- MFA for authentication

and many more…

What is a PAM program (service)?

Technology + processes

Building blocks of PAM service

- Governance
- Privileged account inventory
- Privileged user management
- Policies, monitoring and auditing

PAM service design considerations

Adoption must be driven by enterprise policies

- Define what is a privileged account
- Define controls for managing privileged accounts

Fault tolerance and operational excellence

Preparation for your PAM service

- Promote and advertise!!
- Clean up your Configuration Management Database (CMDB)
- Study your environment, develop the use cases

Preparation for your PAM service

- Define clear goals and create a realistic roadmap
- Don’t underestimate the workload of the stakeholders
- Inventory

Design your PAM service

- Life-cycles for users, devices, accounts, and applications
- Make sure you are reducing risks and not checking a box
- Project management

Implementation of your PAM service

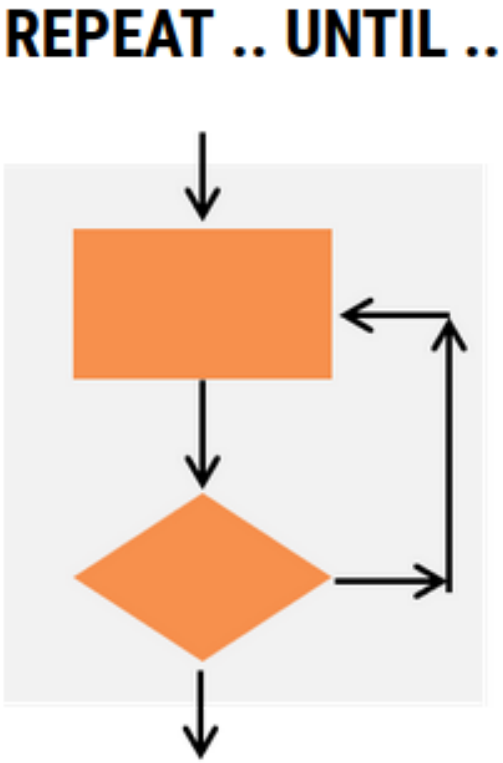
- Risk based approach
- There will be quick wins, but full integration ~~could~~ will take years
- Managing application credentials is difficult, especially for the application team

Maintenance of your PAM service

- PAM metrics, monitoring, and audit
- Roadmap - continually improve - quarterly reviews
- Operational maintenance

Maturity over time

- Maturity models
- Build your service and continually improve



Using your maturity model

- Make it your own - customized outcome
- Assess yourself - what is important to my org?

Build a maturity model

https://gitlab.com/kenrobertson/PAM_maturity_model

Example Privileged Access Management (PAM) maturity model - created for Identiverse conference, Jun 2018.

	Level 0 Initial	Level 1 Managed Repeatable	Level 2 Defined
Characteristics	No Controls, Unpredictable and reactive	Tribe knowledge, often reactive	Proactive, Standards documented

PAM automation

Build a utility / automation server

- Knowledge in one place
- Automation ideas
  - On and off boarding
  - User management
  - Account discovery
  - Metrics
  - Look at your incident tickets

Account management

- Reduce number of privileged accounts
- Move from personal privileged accounts to a shared model
  - Reduce number of accounts
  - Enforce least privilege principle
  - Remove standing privileges

Account management continued

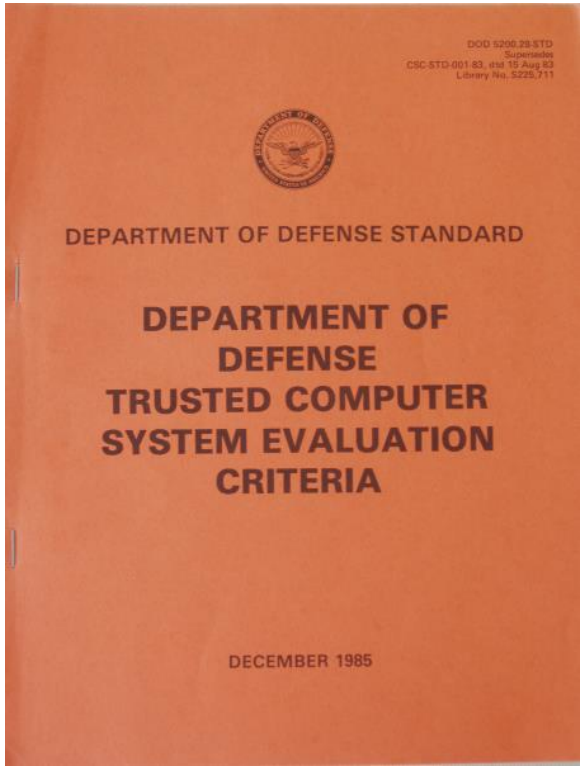
Principle of least privilege

- create accounts with specific function in mind

Documentation should be your best friend

Divio system
https://documentation.divio.com/

- Tutorials
- How-to guides
- Explanation
- Reference



Overcome obstacles

- Executive support is critical
- PAM should be collaborative
- Build power users in the community

Lessons learned

- Senior leadership and stakeholder commitment are critical
- Realistic timeline, roadmap and scoping
- Careful design and testing
- Eat your own dog food
- Maturity models help keep you on track
- Automate everything

Key Takeaways

- Developing an effective PAM service is difficult but rewarding
- Maintain your roadmap
- Automate, automate, automate
- If You Fail to Plan, You Plan to Fail

Thank you!

Ken Robertson

- Mastodon - @ken@infosec.exchange
- Twitter - @krobert7
- Maturity model - https://gitlab.com/kenrobertson/PAM_maturity_model
- Divio system - https://documentation.divio.com/
- Automate!