

Easy Credential Security

with Azure Key Vault

David Richmond
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- David Richmond
- PowerShell enthusiast (evangelist?)
- Devops Engineer (for Endpoints) at a large consumer-focused org
- First scripting language: KeyQuencer
- 10 cats
- Passion for automation, efficiency, and team-building

About Me



Troublesome Credentials

What can we even do about them?

A refresher on the problems

Troublesome Credentials - A security risk lying in wait

- Choices:

- Passwords on disk in readable files
 - Bad guys stealing them (possible, but overrated)
 - Accidental exposure (bigger problem)
- Passwords entered only at the time of use
 - Extremely secure!
 - Extremely not-automation-y.
- Per-device local encryption (DPAPI and exporting securestrings)
 - Nice, but who has access? Who can REVOKE access? Where?

Troublesome Credentials - Logistically, difficult

- Challenges:
 - Sharing
 - Teams? Slack? Sticky notes?
 - Rotation
 - Don't miss that one script!
 - Uncontrolled spread
 - Once it's out, it's out

Securing Credentials

All hope is not lost

A brief description of a solution



Securing Credentials - Varied, lofty goals

- Security
 - Obtained on demand
 - Only ever in memory
 - Disposed afterward
- Logistics
 - Share *access*, not *content*
 - Centralized source means singular update event
 - Controllable access can be revoked

Securing Credentials - Whipping up a solution

- Requirements:
 - Secure, cloud-hosted secrets manager
 - Secure, non-transferable authentication system
 - Integration with existing tools, processes, and trainings

Securing Credentials - The recipe

- Azure Key Vault
 - Centralized secrets management
- Azure App Registration
 - Authentication gatekeeper
- PowerShell integration
 - Credentials are consumed
 - [securestring]s stay secure
- Security
 - Obtained on demand
 - Only ever in memory
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- Logistics
 - Share *access*, not *content*
 - Centralized source means singular update event
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Demo Time

Time to see it live!

May the demo gods be merciful



Questions?