Managing a Hybrid Infrastructure with PowerShell

Matthew Dowst

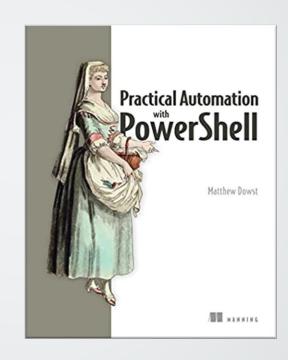
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MATTHEW DOWST PRINCIPAL CONSULTANT-AUTOMATION SOLUTIONS

- Help Desk > SysAdmin
- System Center Consultant
- Orchestrator SME
- Managed automation architect
- Author









A BRIEF HISTORY OF POWERSHELL REMOTING









PowerShell 5.1

- WSMan
- Windows Only
- LAN Only

PowerShell 7

- Open SSH
- Cross-platform
- LAN Only

Hypervisor

- Invoke-VMScript
- PowerShell Direct
- LAN to Host

Azure

- Cross-platform
- Cross-protocol
- Anywhere





AZURE ARC

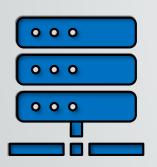


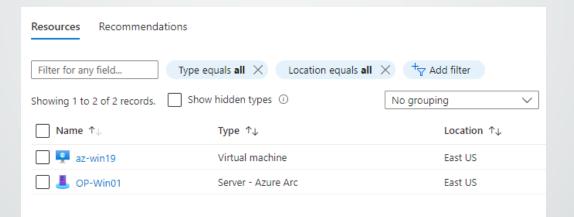


















Google Cloud





WHAT ARC PROVIDES



Updates

Customize updates for your Arcenabled server.



Logs

Enable additional monitoring capabilities.



Monitoring insights
Enable additional monitoring capabilities.



Policies

View compliance by assigning guest configuration policies to your machine.

Not configured



Change tracking and inventory Enable consistent control and compliance of this machine with Change tracking and inventory.



Security

Continuously monitor for potential security vulnerabilities and recommendations.



Windows Admin Center (preview)
Manage your operating system from

Manage your operating system from anywhere — without needing a VPN or other direct connection.

Not configured





DEMO





VM AND ARC SCRIPT EXECUTION

- Windows VM is Windows PowerSHell
- Windows Arc is command prompt
- Linux VM and Arc are Shell
- Output is simple string
- Output is limited to 4096 characters
- Azure Arc only retains last output
- Arc output combines output and errors





DEMO





WHAT YOU NEED

- Arc Agent installed
- PowerShell 7
- An Azure Storage Account



THANK YOU

All scripts are available at: github.com/mdowst/Presentation-Materials

Blog: dowst.dev

PowerShell Weekly: psweekly.dowst.dev

Find me: linktr.ee/mdowst

Use offer code **ctwpsgl23** to get 35% off Practical Automation with PowerShell **mng.bz/QPQ1**



