Palantir in your Hands!
WEF

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12.09.2019 Wroclaw

SysOps/DevOps Polska

PPOSH

After This Session

- Set up
  - custom Windows Event Forwarding environment
  - Azure Log Analytics workspace
- Send specific logs to Azure LA
- Query data using KQL
- Consume data using Azure Dashboards and PowerBI

Agenda

- Windows Event Forwarding
  - Theory
  - Problem and Solution

- Find-Events, WEFTools and Azure magic

- Demo Time
  - Prepare, Deploy, Have Fun

Agenda

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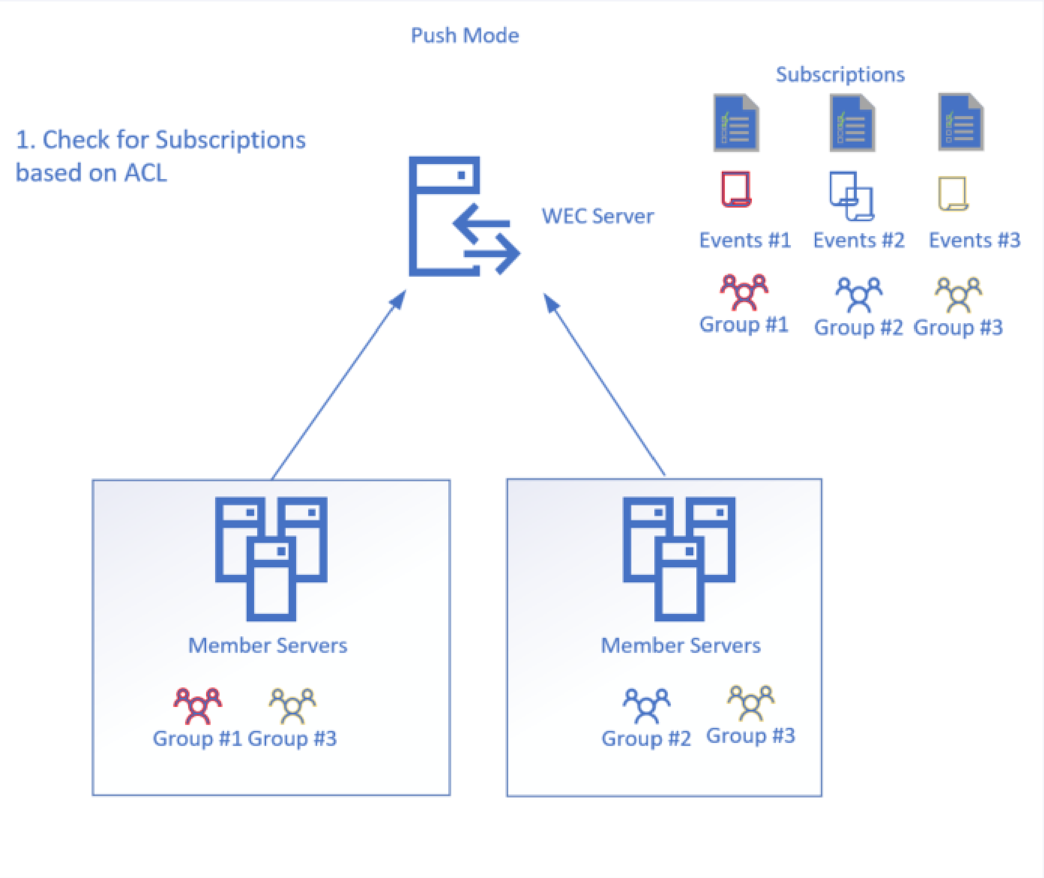
Windows Event Forwarding

Log Forwarding – built in Windows, encrypted using Kerberos

Windows Event Forwarding

Log Forwarding – built in Windows, encrypted using Kerberos

Push



Windows Event Forwarding

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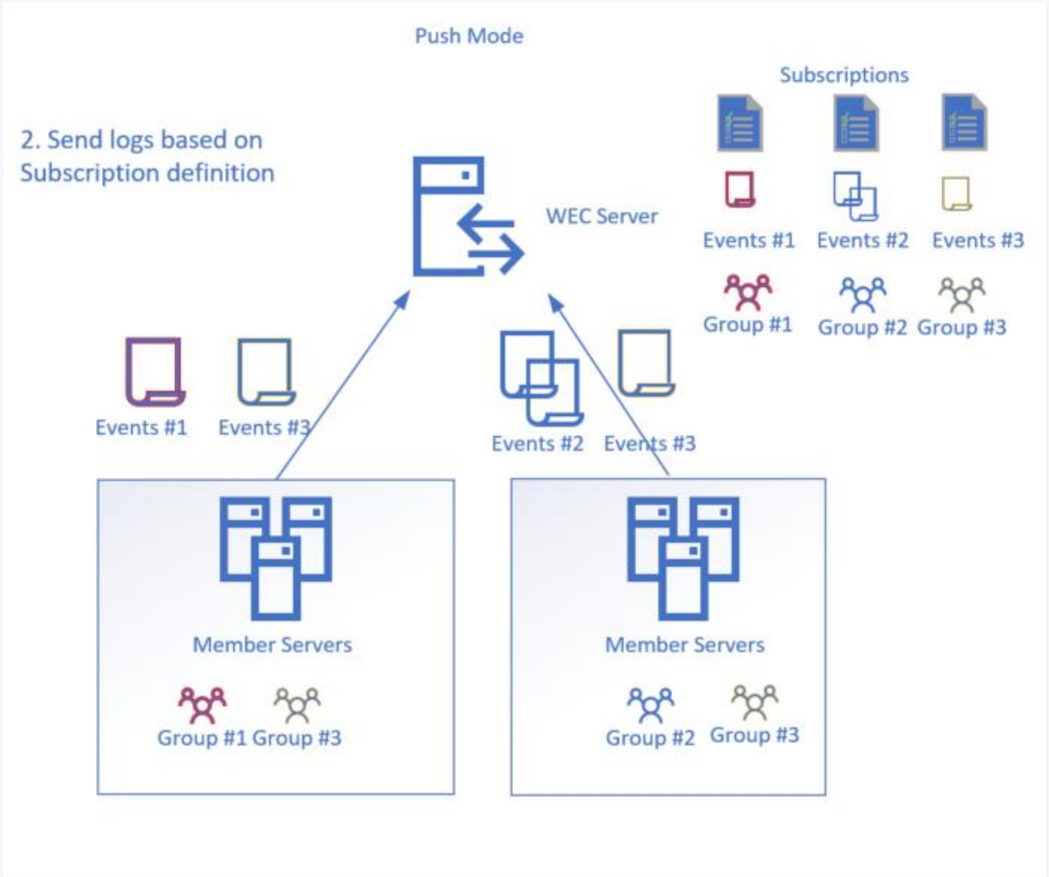
Push



Windows Event Forwarding

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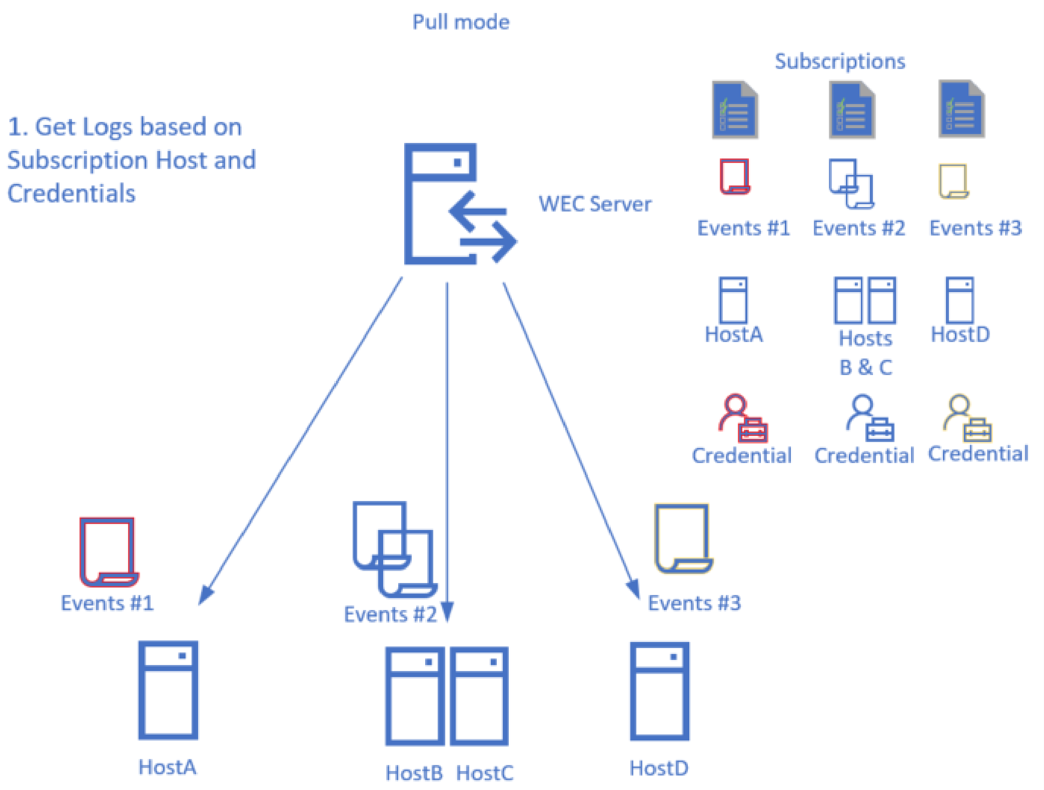
Pull



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Windows Event Forwarding

- Log Forwarding – built in Windows
- Push and Pull
- Full docs: https://docs.microsoft.com/en-us/windows/security/threat-protection/use-windows-event-forwarding-to-assist-in-intrusion-detection

Windows Event Forwarding

- Events forwarded from DCs to a console (manual)
- Jessica’s Payne ‘Host Based Firewall’ to ‘WEFFLES’

  https://channel9.msdn.com/Events/Ignite/New-Zealand-2016/M377

  https://channel9.msdn.com/Events/Ignite/Australia-2015/INF327

  https://blogs.technet.microsoft.com/jepayne/2017/12/08/weffles/
- ‘Monitoring what matters’

  https://blogs.technet.microsoft.com/jepayne/2015/11/23/monitoring-what-matters-windows-event-forwarding-for-everyone-even-if-you-already-have-a-siem/

Run this within minutes and 'hack your way up’

Windows Event Forwarding

- ELK and winlogbeat – a lot of ⌛
- OMS with agents – a lot of 💰
- OMS with WEC – a lot of ℹ and 💰

Windows Event Forwarding

- Palantir
  - multiple event forwarding rules and logs
  - easily managed – subscriptions and AD groups
  - code-deployable

  https://github.com/palantir/windows-event-forwarding
- WSLab
  - sample scripts to KKND

  https://github.com/Microsoft/WSLab
- LME – Logging Made Easy

  https://github.com/ukncsc/lme
- Sauron

  https://blogs.technet.microsoft.com/russellt/2017/05/09/project-sauron-introduction/

Pros from WEF – by Jessica Payne

- Free
- built in Windows (Servers AND Desktops)
- Configured via GPO
- Can (and should be) targeted to specific events
- Native evtx (xml) log format
- Uses WinRM (Kerberos) to prevent man in the middle
- “Push” log mode – less attack surface
- IT admins control their own logging destiny

More Pros from Palantir

- Free
- Log file per group of events - Customized Event Channel dll
- Pre-configured xml subscriptions
- Subscriptions targeted by Active Directory groups membership

Some Cons:

- Searching through Event log is slow
- Bigger team = more people with access to logs
- A lot of storage needed == slower searches
- Can be tampered with

Solution

- ~~Searching through Event log is slow –~~

  Find-Events from PSWinReportingV2 (and PSEventViewer)

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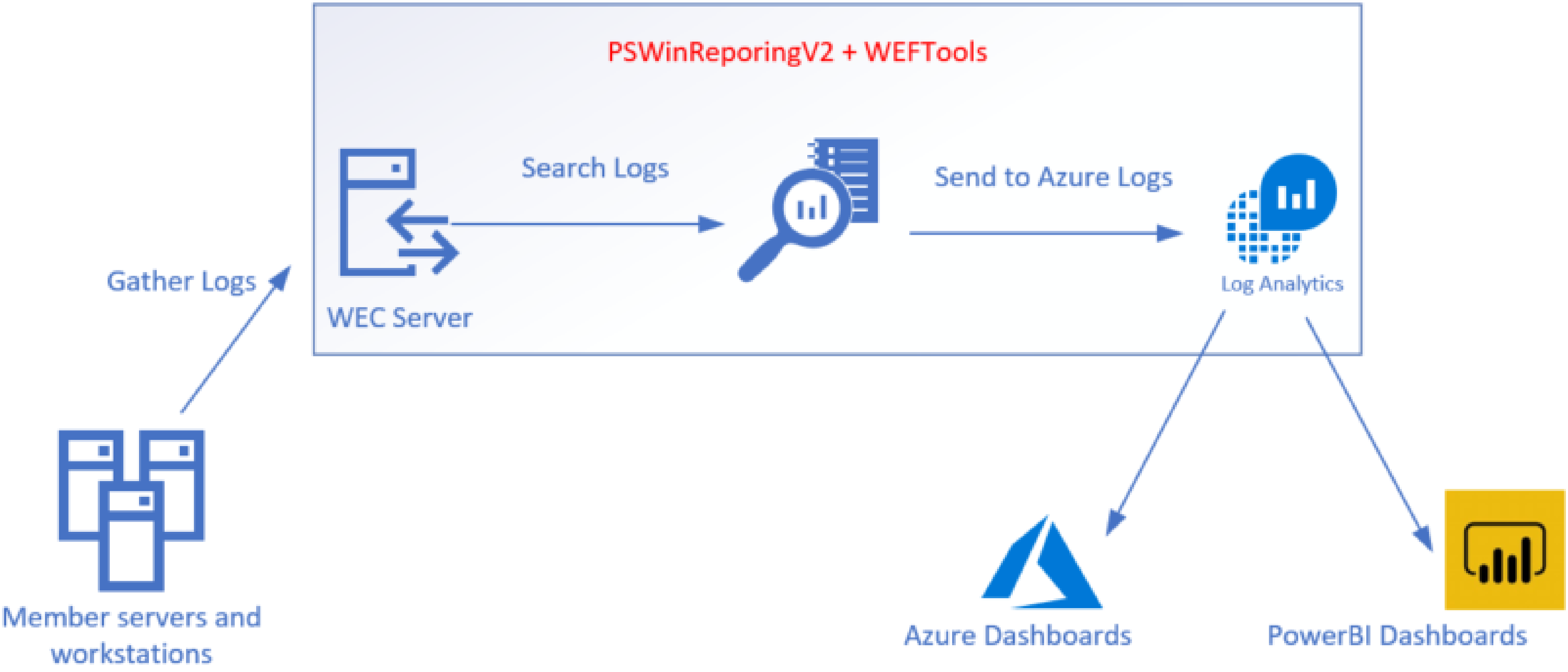
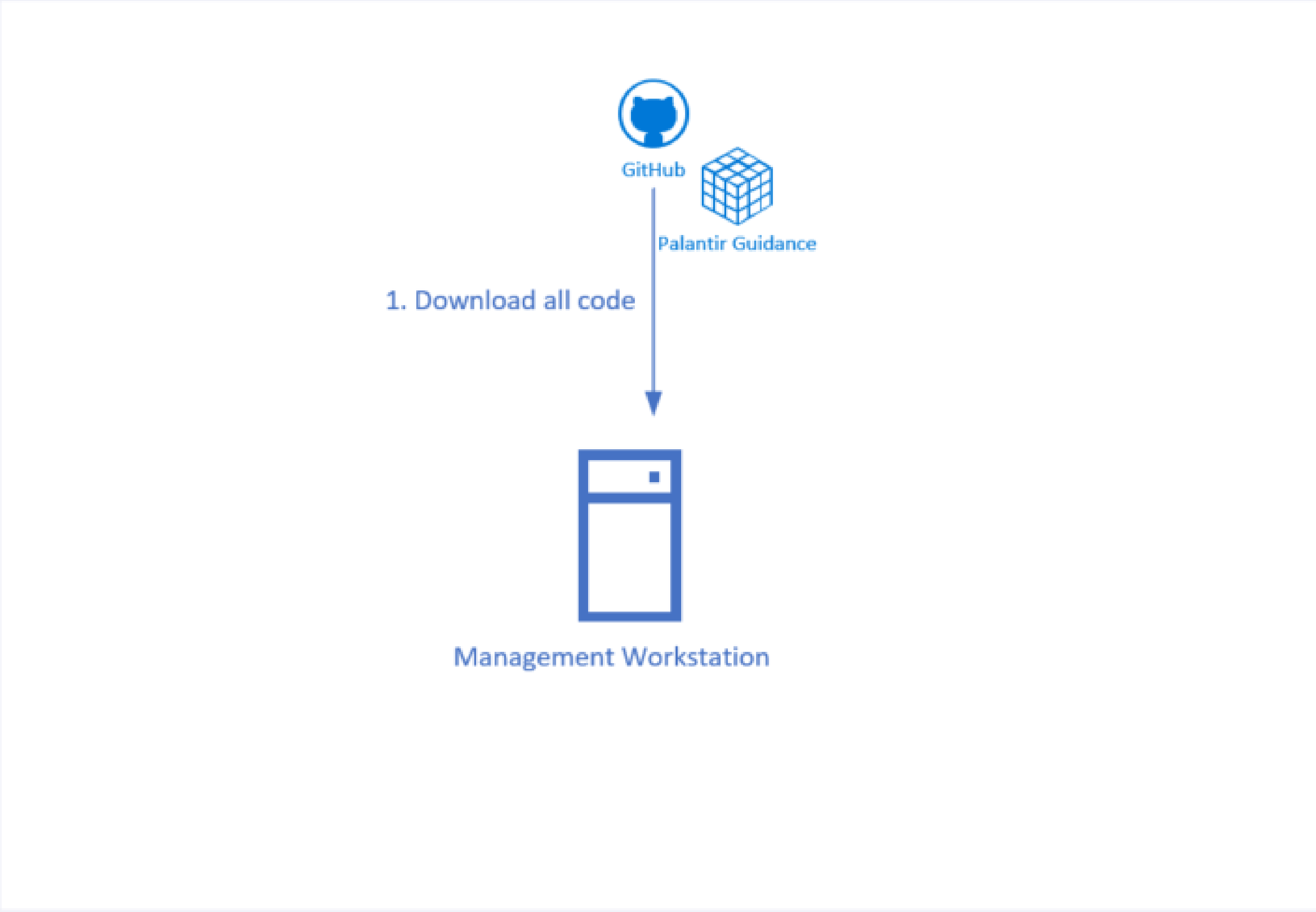
  WEFTools and Azure Log Analytics + PowerBI

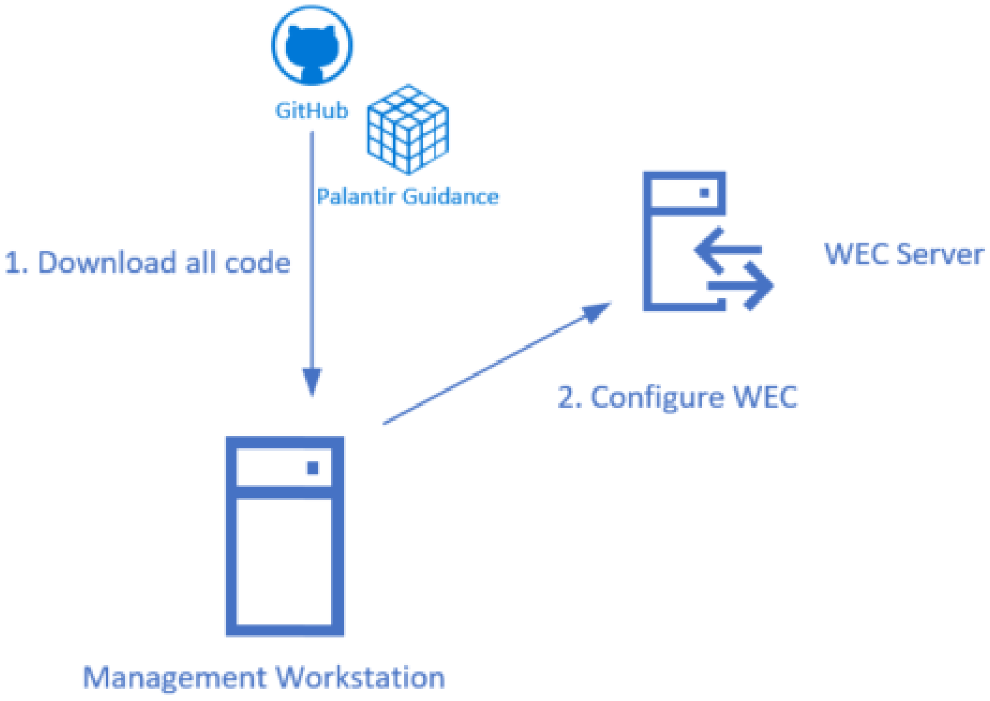
Solution


PSWinReporingV2 + WEFTools
Search Logs
Send to Azure Logs
Gather Logs
WEC Server
Log Analytics
Member servers and workstations
Azure Dashboards
PowerBI Dashboards

Solution


GitHub
Palantir Guidance
1. Download all code
Management Workstation

Solution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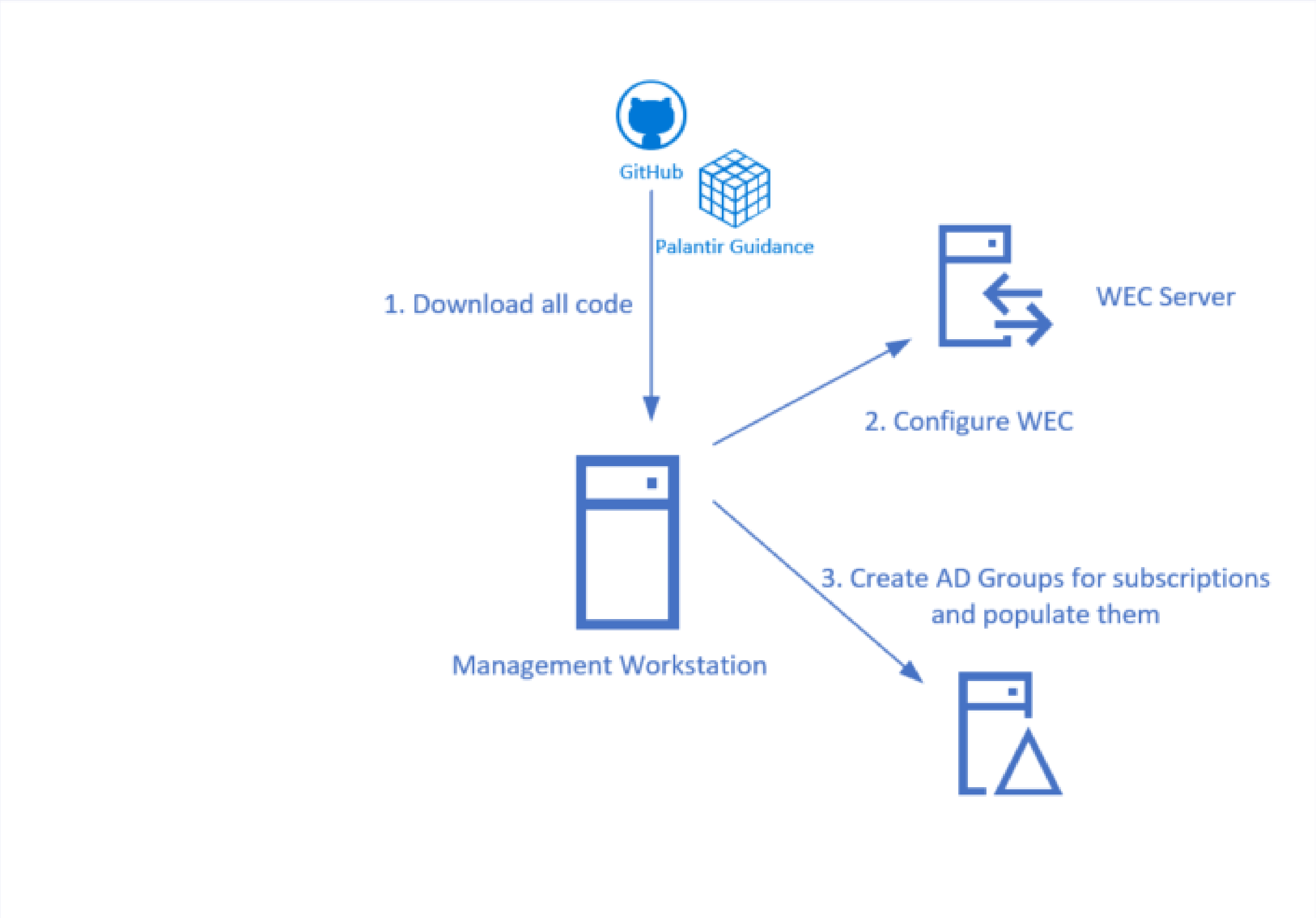
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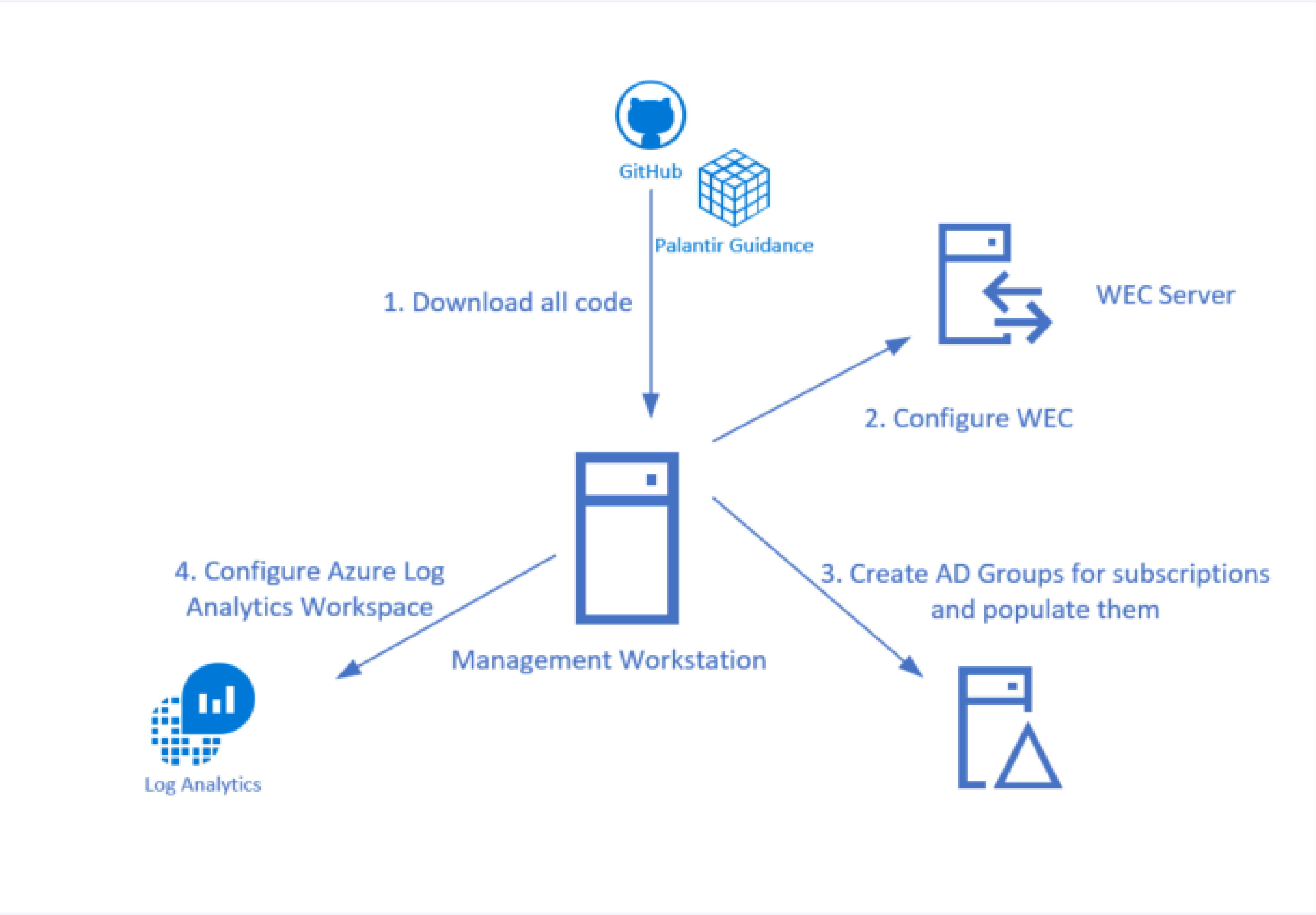
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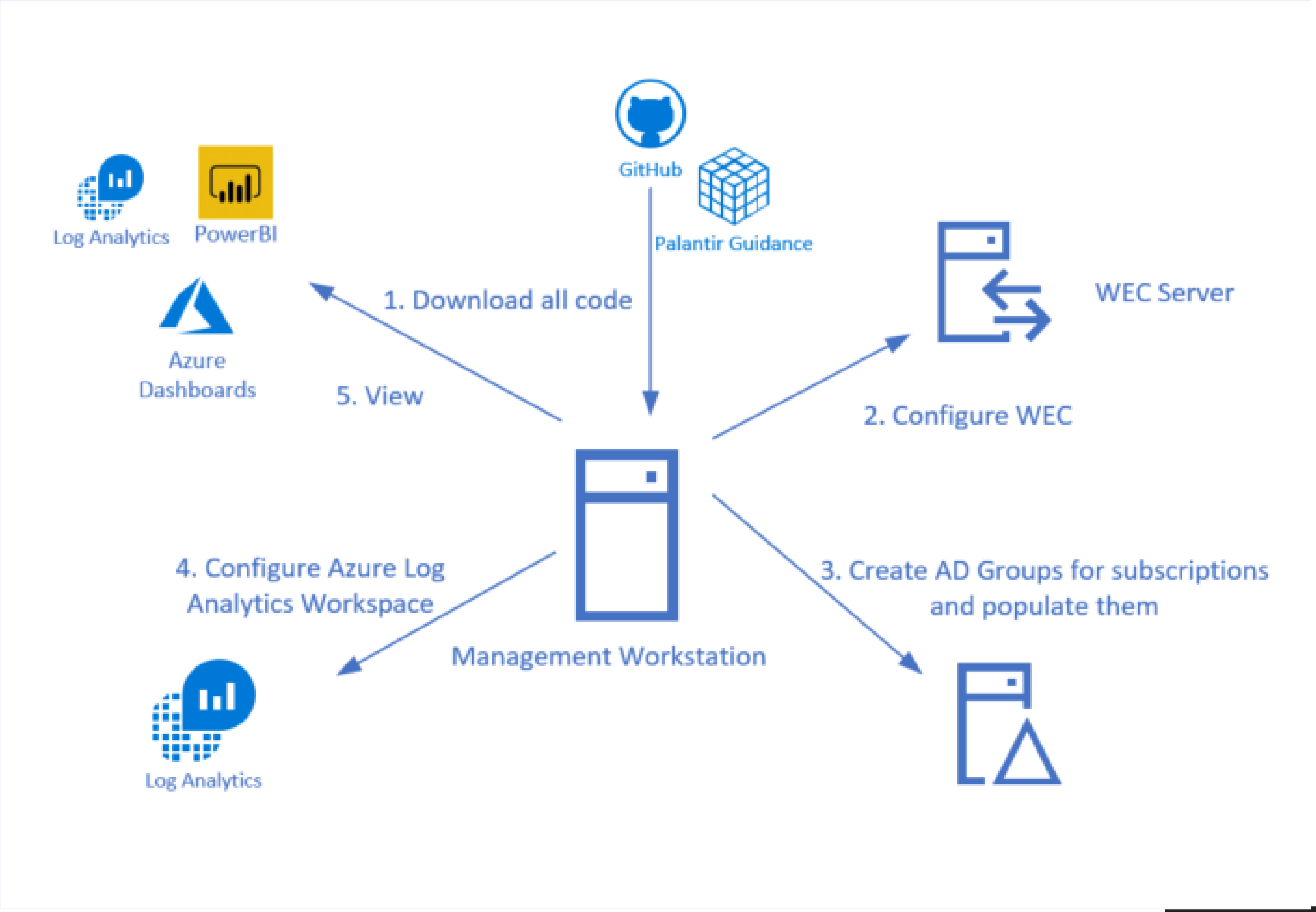
2. Configure WEC
4. Configure Azure Log Analytics Workspace
3. Create AD Groups for subscriptions and populate them
Management Workstation
Log Analytics

Solution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Log Analytics

Demo

Let’s have some fun

Fun fact

Demo Lab – built 3 times same error:

- Group Policy set up correctly
- Replication working as expected
- GPUpdate and GPResult showing OK
- auditpol /get /category:* returns 'No Auditing'

Fix?

-Remove audit.csv from:

\\domainname\SYSVOL\domain\Policies\{GPOGUID}\Machine\microsoft\windows nt\Audit

- Configure GPO again!

Summary

- Collect your Events (FREE)

  WEF + Palantir’s Guidance

- Deploy and run with PowerShell (FREE)

  WEFTools + Find-Events (PSWinReporting + PSEventViewer)

- Store and Analyze (FREE or dirt cheap)

  Azure Log Analytics, KQL, Azure Dashboards, Power BI

Questions?

about_Speaker

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