PowerShell Conference Europe 2019

Hannover, Germany

June 4-7, 2019

A Palantir in your Hands!
WEF

Mateusz Czerniawski

5

Video operator, did you start the recording?

4

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1

PowerShell Conference Europe 2019

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A Palantir in your Hands!
WEF

Mateusz Czerniawski

Platinum Sponsor

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This Session

After this session you'll be able to:

- 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

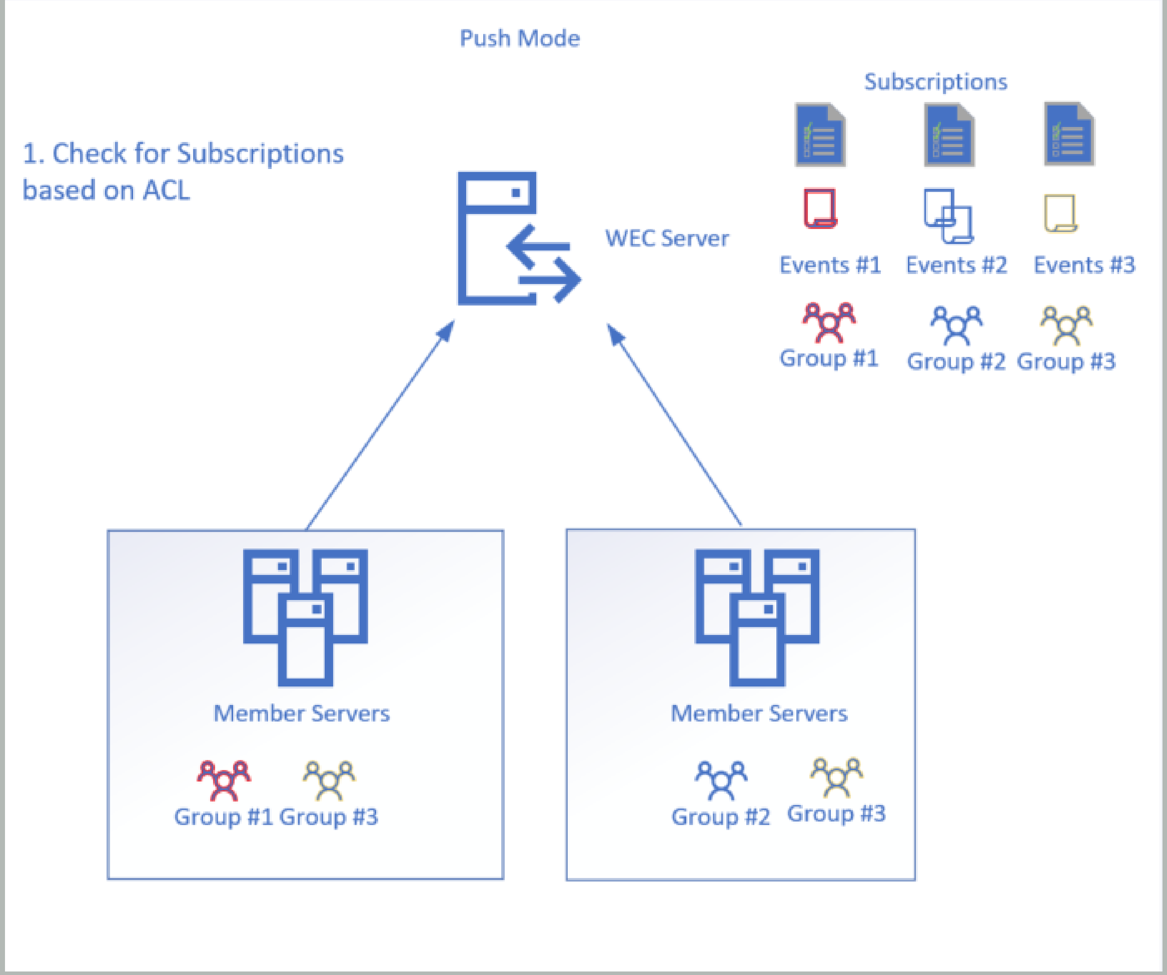
Windows Event Forwarding

Log Forwarding – built in Windows, encrypted using Kerberos

Windows Event Forwarding

Log Forwarding – built in Windows, encrypted using Kerberos

Push



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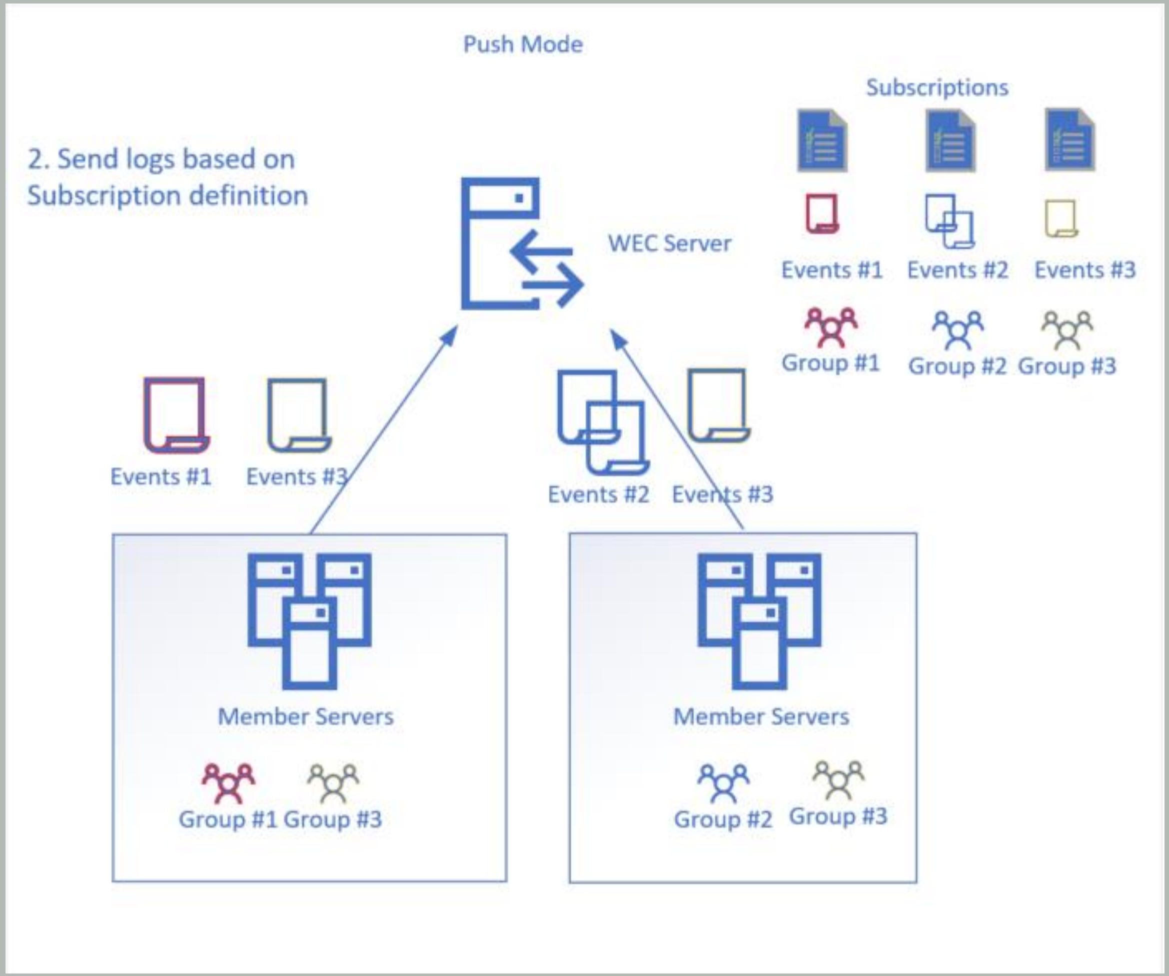
Push



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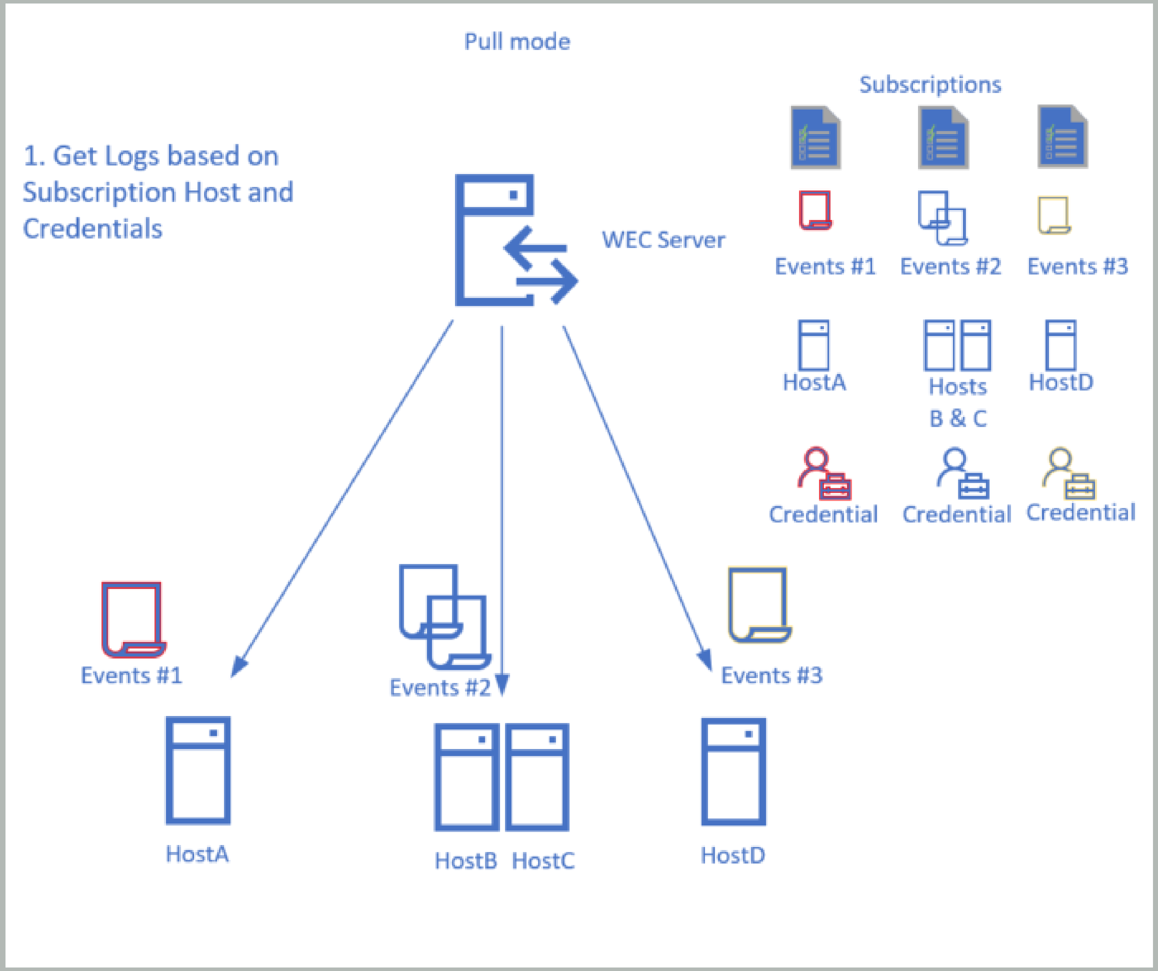

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Windows Event Forwarding

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

- Locked out events forwarded from DCs to a console (manual)

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- 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

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- WSLab
  - sample scripts to KKND

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- 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)
- Bigger team = more people with access to logs
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- ~~Searching through Event log is slow –~~

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- ~~Can be tampered with~~

    WEFTools and Azure Log Analytics + PowerBI

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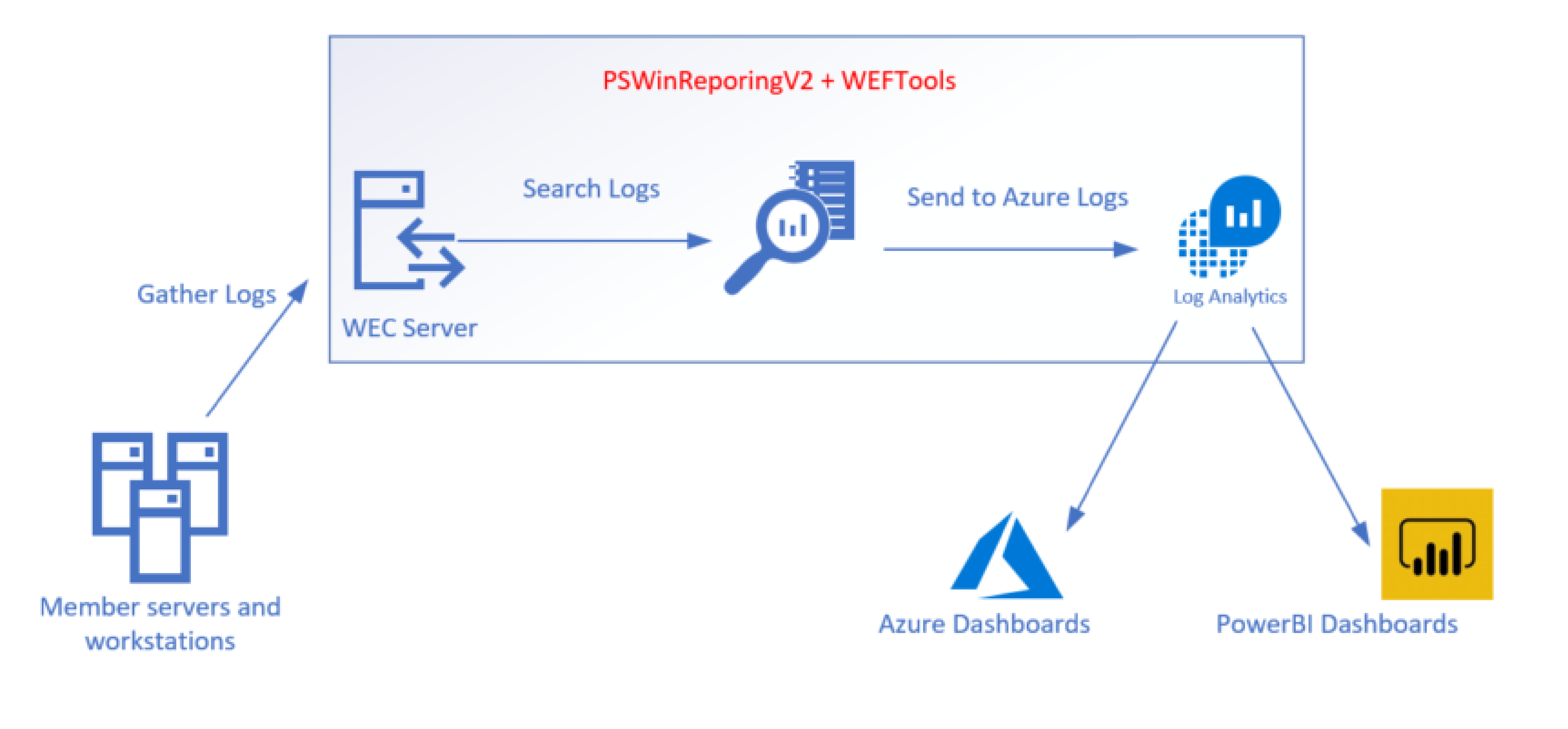
Solution



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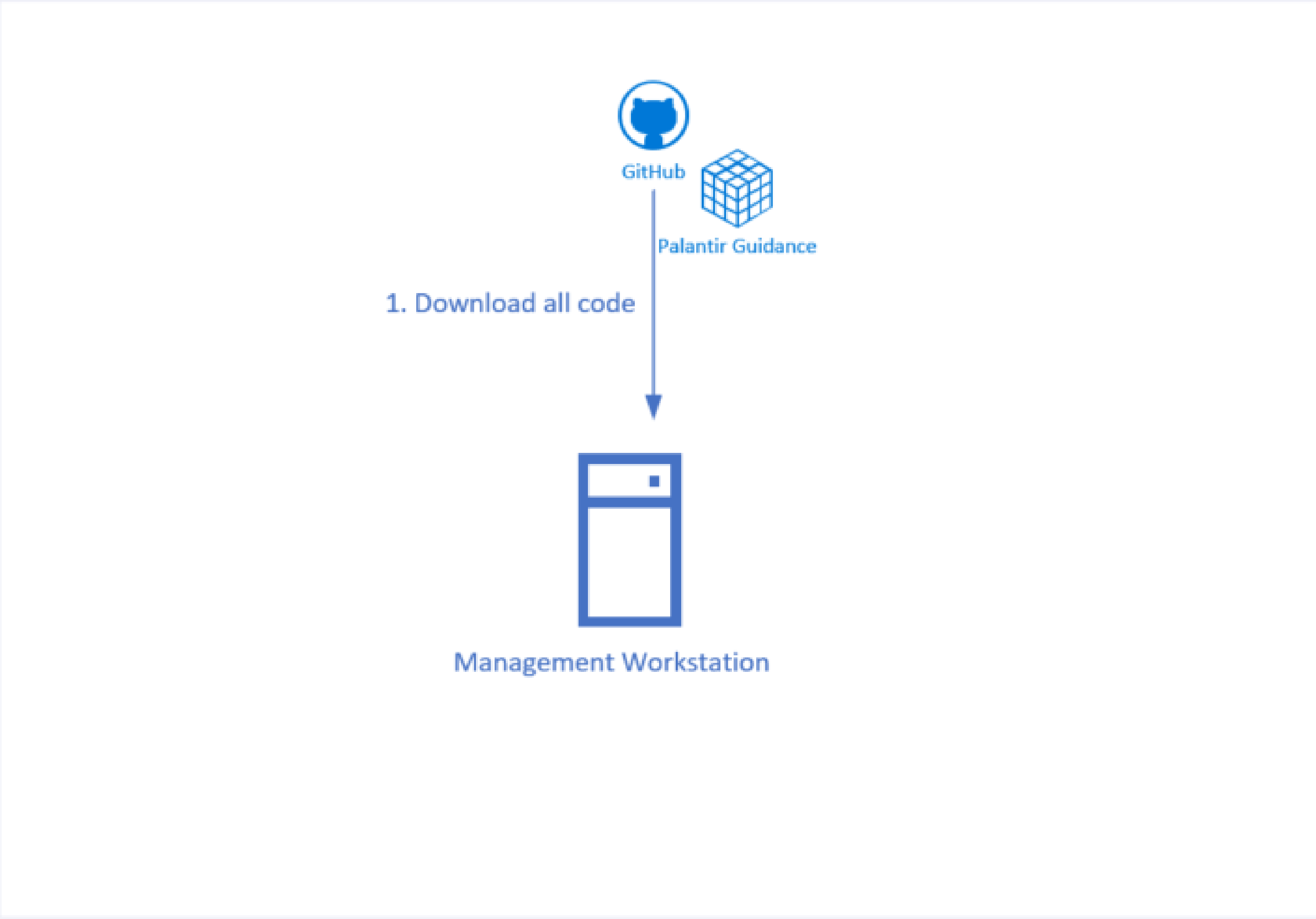
Solution



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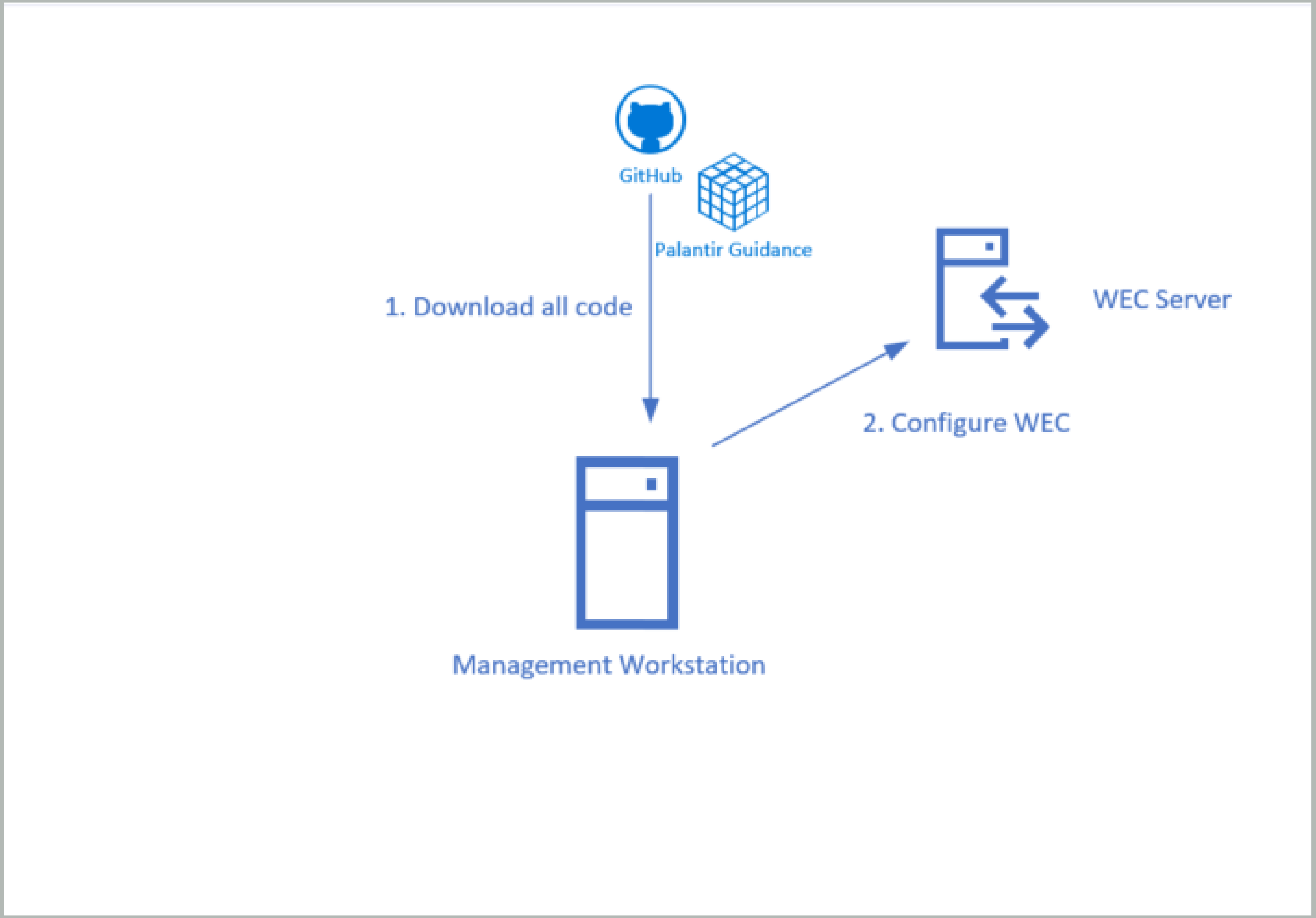

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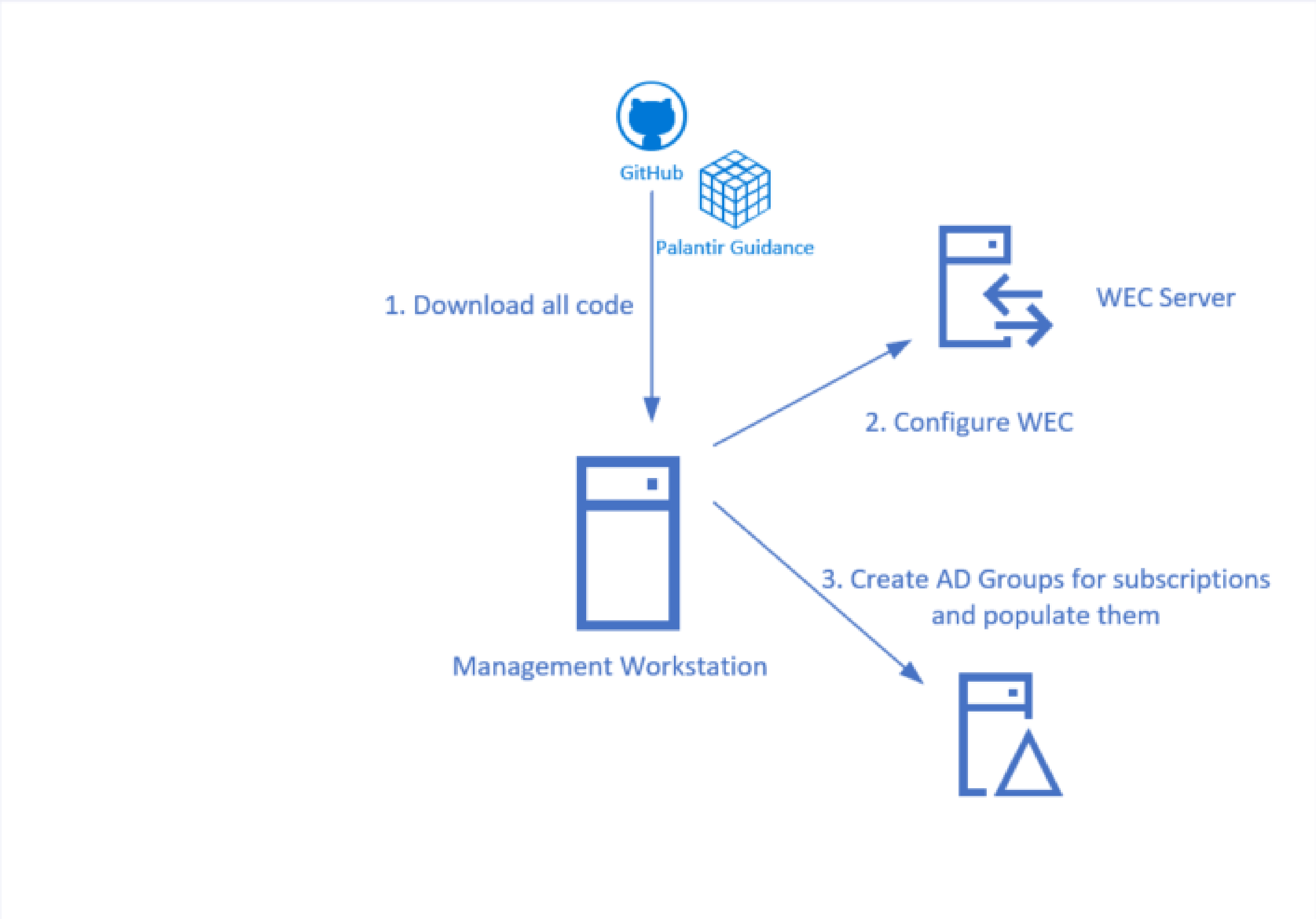

GitHub

Palantir Guidance

1. Download all code

WEC Server

2. Configure WEC

Management Workstation

3. Create AD Groups for subscriptions and populate them

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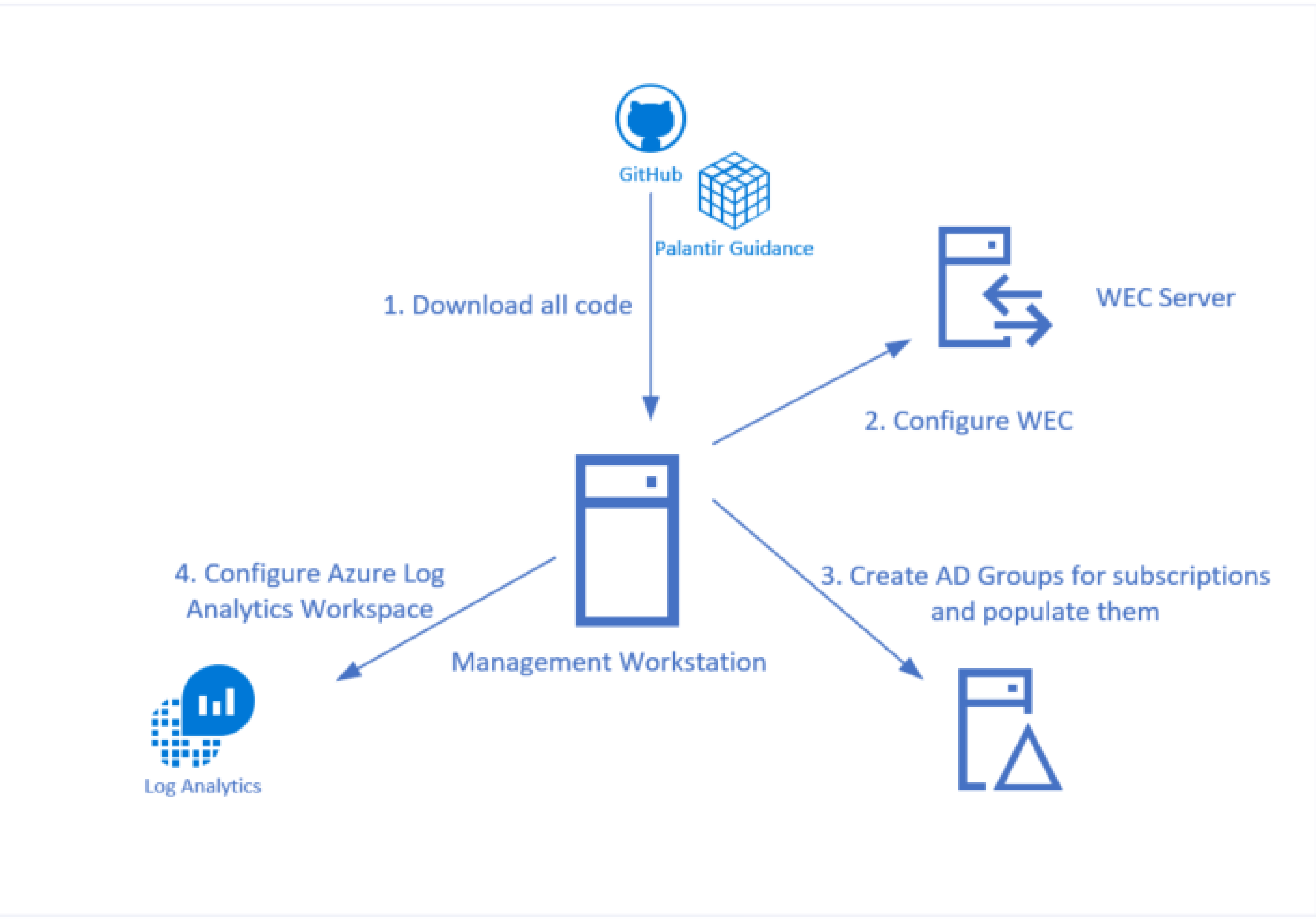
Solution



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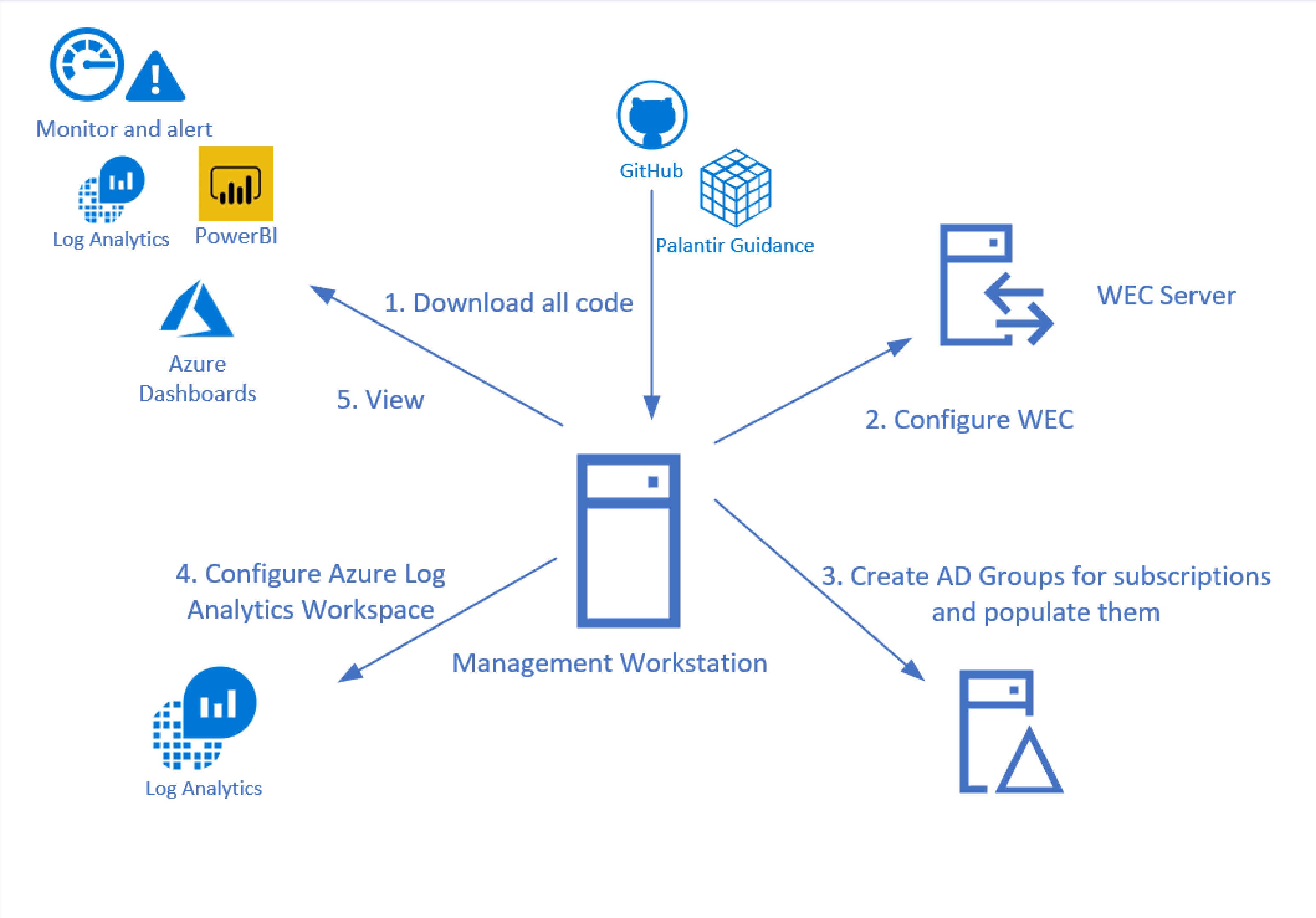

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DEMO

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!

https://blogs.msdn.microsoft.com/spatdsg/2011/06/06/audit-policy-not-registering-audits/

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, PowerBI

Slides and demo code

```
Start-Process -FilePath https://github.com/psconfeu/2019
```

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Questions?

Use the conference app to vote for this session:
https://my.eventraft.com/psconfeu

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about_Speaker

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