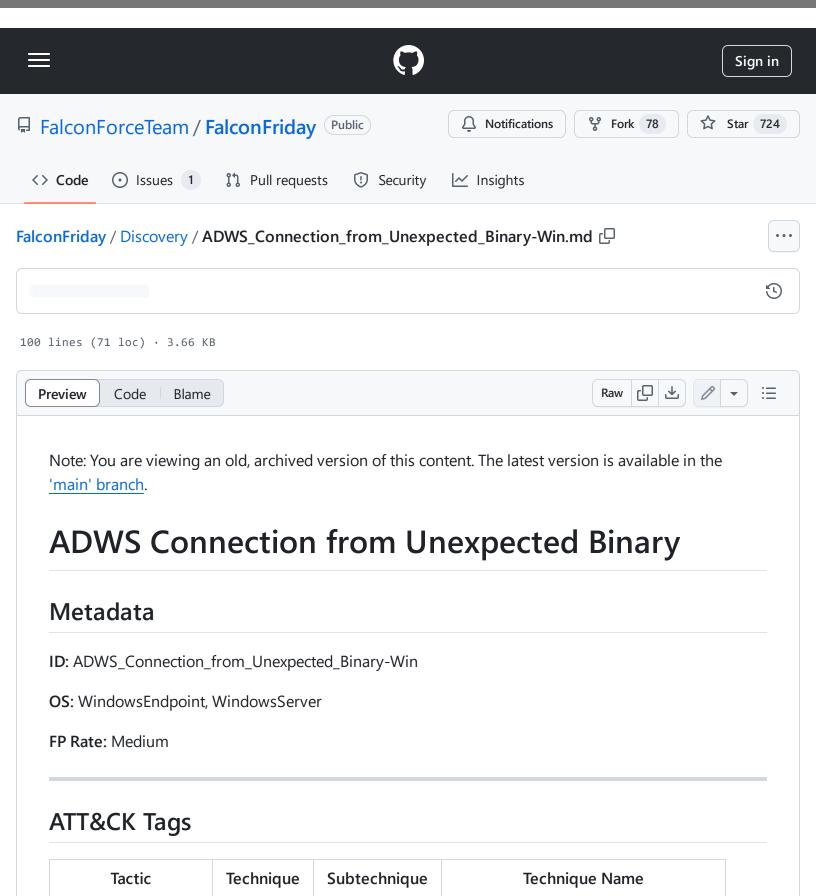
FalconFriday/Discovery/ADWS\_Connection\_from\_Unexpected\_Binary-Win.md at master FalconForceTeam/FalconFriday GitHub - 31/10/2024 16:50

https://github.com/FalconForceTeam/FalconFriday/blob/master/Discovery/ADWS\_Connection\_from\_Unexpected\_Binary-Win.md



**Automated Collection** 

TA0009 - Collection

T1119

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TA0007 - Discovery	T1087	002	Account Discovery - Domain Account
n todon Biscovery	11007	002	recount biscovery bomain recount

#### **Utilized Data Sources**

Log Provider	Event ID	Event Name	ATT&CK Data Source	ATT&CK Data Component
MicrosoftThreatProtection	ConnectionSuccess		Network Traffic	Network Connection Creation

## Technical description of the attack

This query first collects the IP addresses of all machines that have the Active Directory Web Services (ADWS) service running. It then searches for network connections to these IP addresses from processes that are not expected to connect to ADWS.

## Permission required to execute the technique

User

## **Detection description**

ADWS is a Windows service that allows Active Directory to be queried via a web service. While this service is not malicious by itself, it can be used by attackers to query Active Directory from compromised machines.

### Considerations

ADWS is the protocol used by the Active Directory PowerShell module. Therefore, connections from PowerShell to ADWS are expected. The query relies on the fact that both the domain controller running the ADWS service and the client from which the connection is made are enrolled in Microsoft Defender for Endpoint.

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#### **False Positives**

ADWS is used by a number of legitimate applications that need to interact with Active Directory. These applications should be added to the allow-listing to avoid false positives.

## **Suggested Response Actions**

Investigate the suspicious connection:

- Is the process that made the connection expected to connect to ADWS?
- Are there any other signs of compromise on the affected machine?

# **Detection Blind Spots**

An attacker might inject code into a legitimate process and use that process to connect to ADWS.

#### References

• <a href="https://learn.microsoft.com/en-us/previous-versions/windows/it-pro/windows-server-2008-R2-and-2008/dd391908">https://learn.microsoft.com/en-us/previous-versions/windows/it-pro/windows-server-2008-R2-and-2008/dd391908</a>(v=ws.10)

#### **Detection**

Language: Kusto

Platform: M365 Security

Query:

```
let timeframe = 2*1h;
let ADWSIPs=(
    DeviceNetworkEvents
    | where ingestion_time() >= ago(timeframe)
    | where InitiatingProcessFolderPath == @"c:\windows\adws\microsoft.activedirec"
    | where LocalPort == 9389
    | distinct LocalIP
);
```

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```
DeviceNetworkEvents
| where ingestion_time() >= ago(timeframe)
| where ingestion_time() >= ago(timeframe)
| where ActionType == "ConnectionSuccess"
| where RemotePort == 9389
| where RemoteIP in (ADWSIPs)
| where not(isempty(InitiatingProcessFileName))
| where not(InitiatingProcessFolderPath in~ (@"c:\windows\system32\dsac.exe", @"c:\
| where not(InitiatingProcessFolderPath startswith @"c:\windows\system32\windowspon|
| where not(InitiatingProcessFolderPath startswith @"c:\windows\syswow64\windowspon|
| where not(InitiatingProcessFolderPath startswith @"c:\program files\microsoft mon|
| // Begin environment-specific filter.
// End environment-specific filter.
```

# **Version History**

Version	Date	Impact	Notes
1.1	2024-01-15	minor	Publish this as part of new FalconFriday blog.
1.0	2023-11-27	major	Initial version.