

**Protocol:**

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[Server Service Remote Protocol \(MS-SRVS\)](#)

**Interface UUID:**

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- 4b324fc8-1670-01d3-1278-5a47bf6ee188

**Server Binary:**

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srvsvc.dll (loads into) svchost.exe

**Endpoint:**

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- ncacn\_np: \PIPE\srvsvc

**ATT&CK Relation:**

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- [T1018 - Remote System Discovery](#)

- System Enumeration

## Indicator of Activity (IOA):

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- Network:
  - Inbound network connections to System over port 445
  - Network connection to pipe - `\pipe\srvsvc`
  - Methods:
    - `NetSessionEnum`
- Host:
  - Window Security Event 5145 (Detailed Network File Share):
    - Share Name: `IPC$`
    - Relative Target Name: `\pipe\srvsvc`
    - Look at the user who made the connection
    - Access Request Information: Access Mask (0x3 or higher) ( `ReadData` or `ListDirectory` + `WriteData` or `AddFile` )
  - Note::** BH has been seen to have the hardcoded rights: `0x12019f` (`READ_CONTROL`, `SYNCHRONIZE`, `ReadData` (or `ListDirectory`), `WriteData` (or `AddFile`), `AppendData` (or `AddSubdirectory` or `CreatePipeInstance`), `ReadEA`, `WriteEA` , `ReadAttributes`, `WriteAttributes`)
  - Ransomware has been known to shut off the Lanman Server Service

## Prevention Opportunities:

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- Prevent relay attacks by enabling SMB signing:
  - `HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\LanManServer\Parameters\RequireSecuritySignature = 1`
  - `HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\LanManServer\Parameters\EnableSecuritySignature = 1`
- MSFT link for guidance: <https://docs.microsoft.com/en-us/troubleshoot/windows-server/networking/overview-server-message-block-signing>

- [NetCease](#): Changes

```
HKEY_LOCAL_MACHINE/SYSTEM/CurrentControlSet/Services/LanmanServer/DefaultSecurity/Srv
svcInfo binary value
```

- RPC Filter Example:

```
rpc
filter
add rule layer=um actiontype=permit
add condition field=if_uuid matchtype=equal data=4b324fc8-1670-01d3-1278-5a47bf6ee:
add condition field=remote_user_token matchtype=equal data=D:(A;;;CC;;;BA)
add filter
add rule layer=um actiontype=block
add condition field=if_uuid matchtype=equal data=4b324fc8-1670-01d3-1278-5a47bf6ee:
add filter
quit
```



- RPC filter to only allow Administrators

## Notes:

- Adding NT AUTHORITY\BATCH, NT AUTHORITY\INTERACTIVE, NT AUTHORITY\SERVICE to filter might help with compatibility/functionality issues.
- Lanman Server
  - System Enumeration:
    - User Session Enumeration ( NetSessionEnum/NetrSessionEnum )
    - Share Enumeration ( NetShareEnum/NetrShareEnum )
    - Connection Enumeration ( NetConnectionEnum/NetrConnectionEnum )
    - File Enumeration ( NetFileEnum/NetrFileEnum )
- Often seen with BH activity
- Look for connection to named pipe (both client and server)

## Useful Resources:

- <https://www.darktrace.com/en/blog/making-the-red-team-wave-the-white-flag-with-darktrace-ai/>  
<https://www.sentinelone.com/blog/deep-dive-exploring-an-ntlm-brute-force-attack-with-bloodhound/> <https://en.hackndo.com/ntlm-relay/>
- <https://github.com/p0w3rsh3ll/NetCease>