

Configure VPN Infrastructure



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Overview



Configure VPN Infrastructure

Overview

- Deploy NPS server
- Deploy VPN server



NPS Server



Network Policy Server

NPS

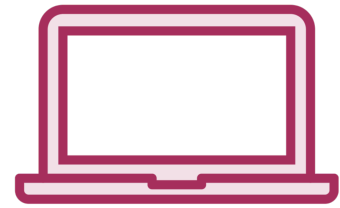
**Microsoft implementation of
RADIUS**

Authentication

**For Always On VPN user-
based connections**



NPS Server Configuration



Provision VM and join domain



Validate certificate enrollment



Install NPS role



Configure NPS policy



Demo



Configure NPS Server



Enable NPS Auditing

```
auditpol.exe /set /subcategory:"Network Policy Server" /success:enable /failure:enable
```



Windows Server 2019 Workaround

```
sc.exe sidtype IAS unrestricted
```



VPN Server



VPN Server

RRAS

**VPN services for user and
device connections**

Protocols

IKEv2 and SSTP



VPN Server Configuration



Provision VM and join domain



Install certificates



Install RemoteAccess role



Configure VPN access



Fine tuning and optimization



Demo



Configure VPN Server



Fine Tuning and Optimization



Additional Configuration

VPN Ports

Set number of ports
and disabled unused

IPsec Policy

Default parameters
are insecure

Root Certificate

Define root of trust
for IKEv2

IKEv2 Fragmentation

Improves operational
reliability

Revocation Checking

Required to block
device-based
connections



Demo



Optimize VPN Server Configuration



IKEv2 IPsec Security Settings

Default	Recommended
3DES	AES-128 (GCM optional)
SHA-1	SHA-256
DH 2 (1024-bit)	DH 14 (2048-bit)



Summary



Configure VPN Infrastructure

Summary

- Install and configure NPS
- Install and configure VPN
- Optimized VPN server configuration



Up Next:

Provision Always On VPN Clients

