

Active Directory, Domain Services, and DNS

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Author Note

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Abstract

In this paper, the process of the installation and configuration of Microsoft Active Directory Domain Services, and DNS (Domain Name Service) on a Windows Server 2016 virtual machine will be explained and documented.

Active Directory, Domain Services, and DNS

Windows Server 2016 allows for—through the use of Server Manager—the installation of Windows Active Directory Domain Services and for configuration options regarding DNS.

The process of installation and configuration for both items shall be explained.

Active Directory Domain Services

To begin, in Server Manager, one must merely select the “Add Roles and Features” wizard and designate Active Directory Domain Services (and DNS for later) for installation.

Default options are chosen for the configuration of the initial installation.

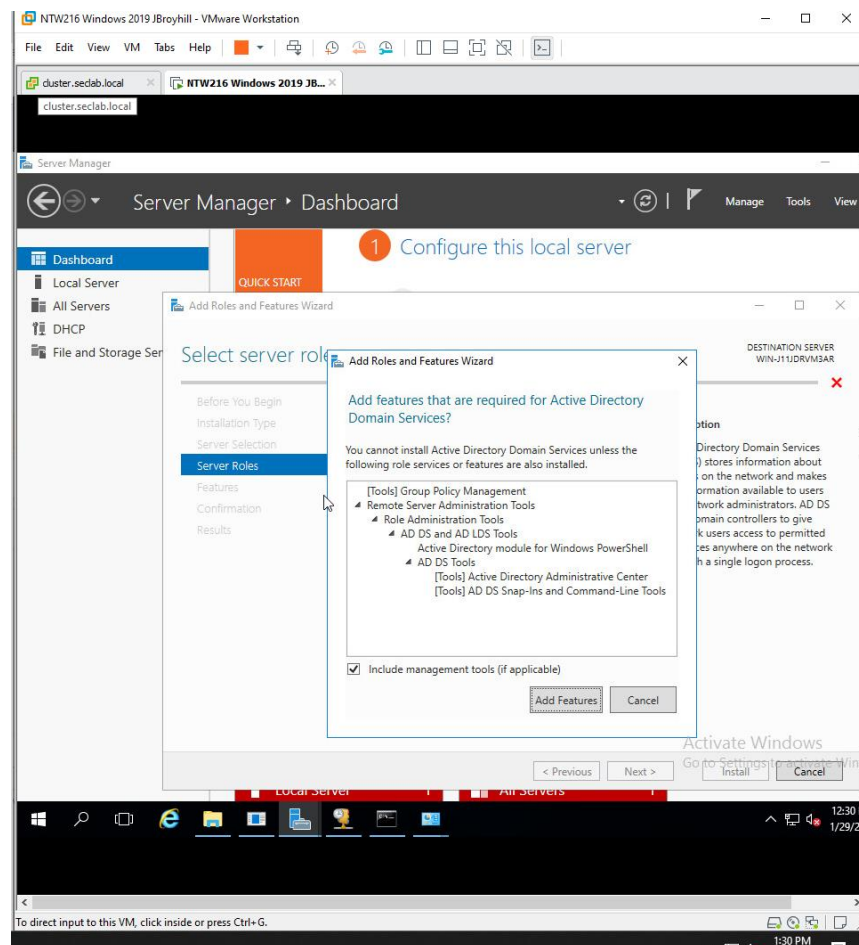


Figure 1. Windows Server screenshot. This figure demonstrates the installation of Active Directory Domain Services.

The next step is to configure Active Directory Domain Services from the new tab on the left of Server Manager. In the configuration, the user must select the name of their new domain, its forest and domain functional levels, etc. Making sure to enable DNS Server for configuration with Active Directory, the configuration proceeds with generally default options chosen.

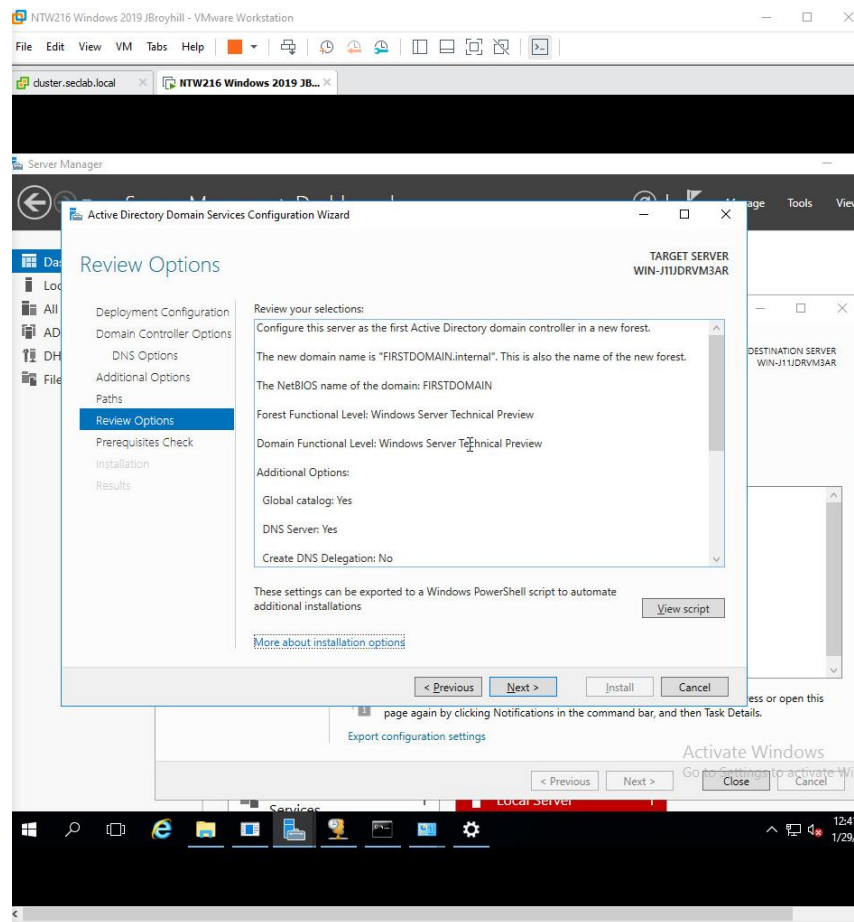


Figure 2. Windows Server screenshot. This figure demonstrates the configuration of Active Directory Domain Services.

The Windows Server will restart and upon booting up, the user will login through their newly created domain instead of directly to the server: the installation and configuration of Active Directory Domain Services is complete.

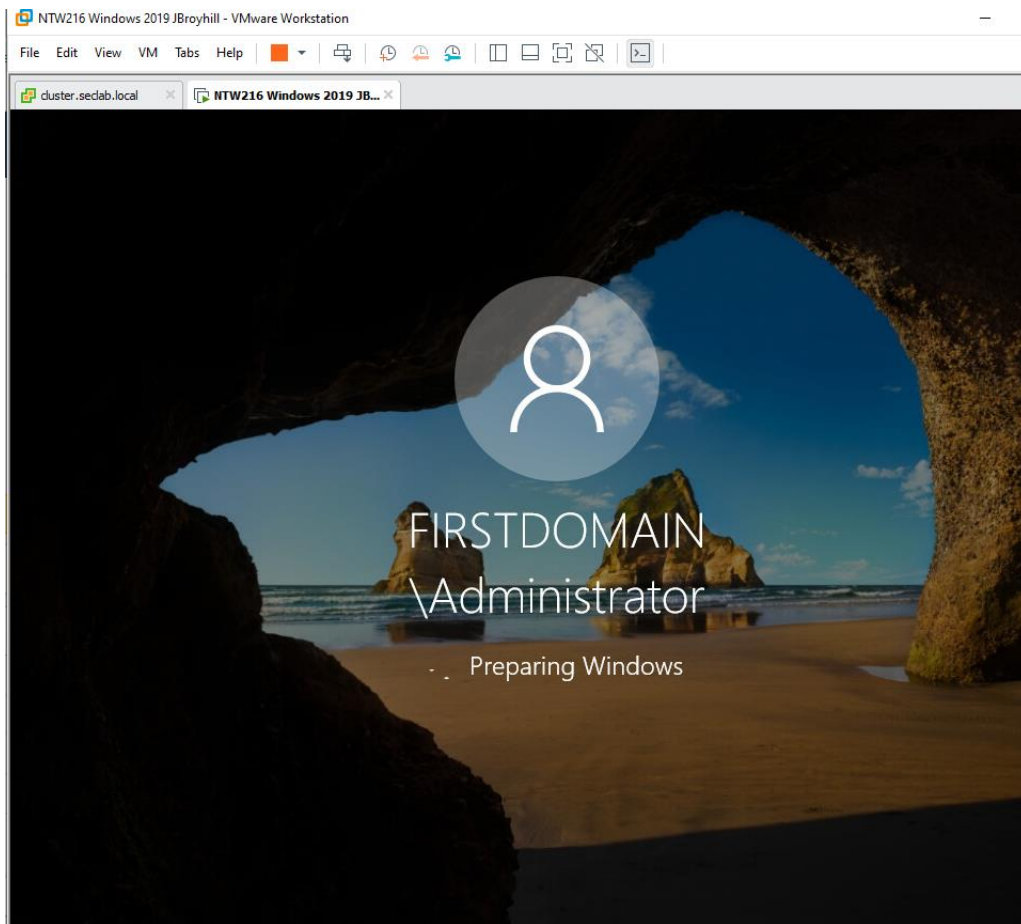


Figure 3. Windows Server screenshot. This figure demonstrates the logging in of an administrator into the “FIRSTDOMAIN” domain of Windows Active Directory.

DNS

For the configuration of DNS (as it has already been installed through the “Add Roles and Features” Wizard, one must only select the DNS tab on the sidebar in Server Manager. Upon doing so, select the server to be managed, and then proceed to select “Action” and “Configure a DNS server.”

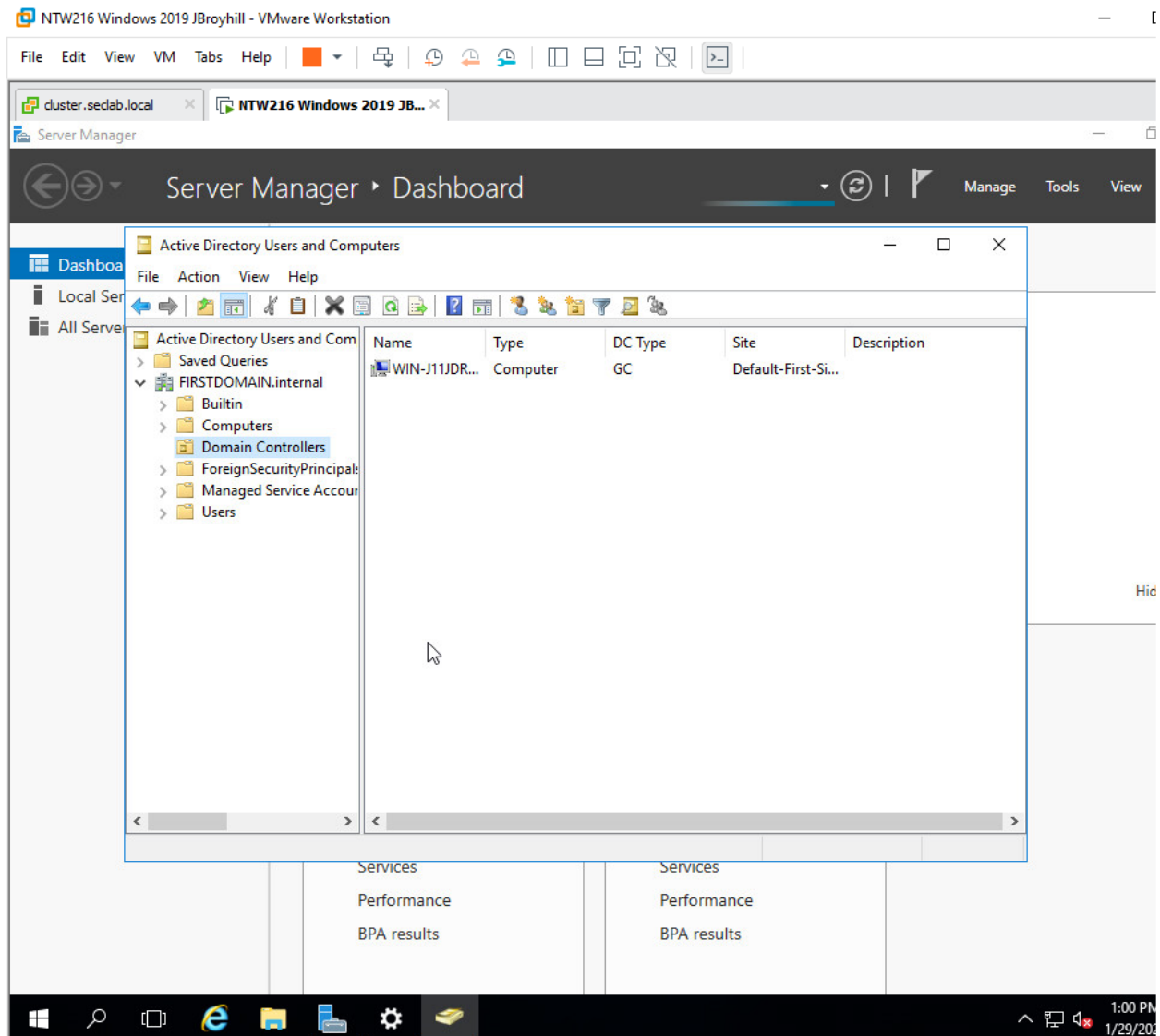


Figure 4. Windows Server screenshot. This figure demonstrates the configuration of Active Directory and DNS.

Afterwards, the user creates a Forward Lookup Zone (with an optional Reverse Lookup Zone, as the author did) and use the respective IP (Internet Protocol) addresses of their network for configuration.

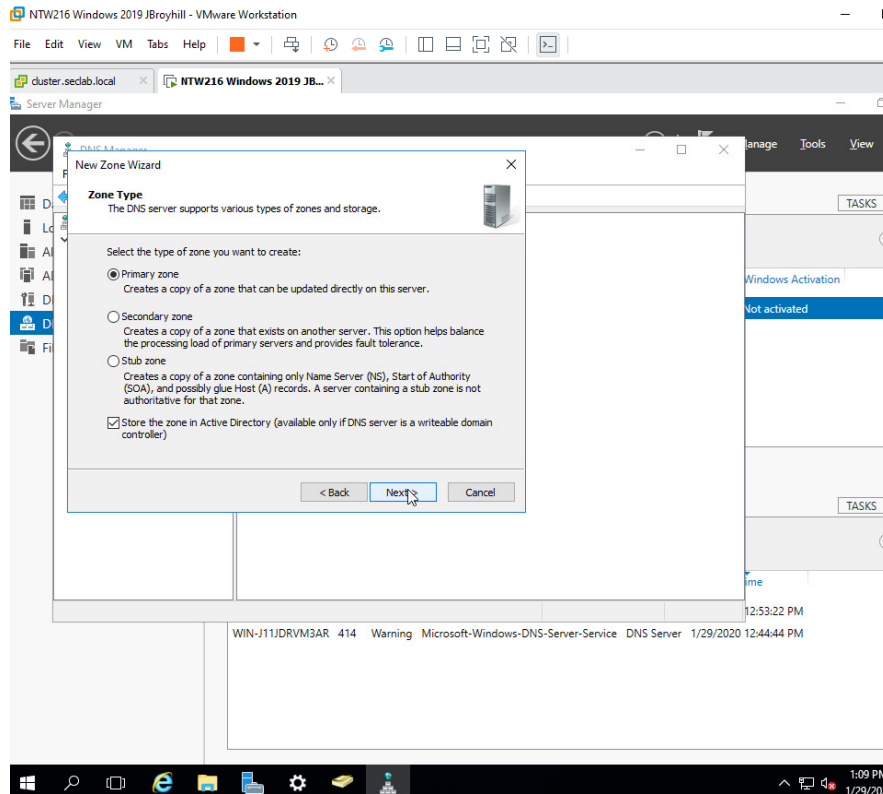


Figure 5. Windows Server screenshot. This figure demonstrates the configuration of a Forward Lookup Zone in Windows Active Directory and DNS.

After the zones are configured, the configuration is now finished. Unlike the installation of a domain, no restart or reboot is necessary.

References

No references were used apart from screenshots from the author's Windows Server 2016 virtual machine.