

# Disable Legacy Name Resolution

## LLMNR

Link-Local Multicast Name Resolution

This protocol runs on UDP port 5355, mostly to perform name resolution for hosts on the same local link. It mostly includes all Windows hosts and has been implemented in Linux for the systemd-resolved service.

To disable: Computer Configuration > Policies > Administrative Templates > Network > DNS Client > Turn off Multicast Name Resolution > Setting “Enabled”

## mDNS

mDNS stands for Multicast DNS. This protocol runs on UDP port 5353 and was originally made by Apple to help the AirPlay2-based services perform seamless setup via the Bonjour service. Now, it is found primarily in networks with mostly Windows and internet of things (IoT) devices. This protocol performs local network name and service discovery without the need for central name resolution.

To disable: “HKLM:\SYSTEM\CurrentControlSet\Services\Dnscache\Parameters”-Name “EnableMDNS”-Value 0-Type DWord

## NetBIOS-NS

NetBIOS-NS stands for network basic input/output system naming service. This protocol runs on UDP/TCP port 137, 138, and 139, mostly on Windows hosts running Server Message Block (SMB) and the Unix-based version, Samba. This protocol asks the receiving machine to disclose and return its current set of NetBIOS names.

To disable: DHCP scope option > Advanced > Windows 2000 Options > option 001 > 0x2

For static clients: Network Adapter Properties > IPv4 > Advanced > WINS > Disable NetBIOS

## WPAD

Windows uses Web Proxy Auto-Discovery protocol (WPAD) to discover Proxy Auto-Config (PAC) files from the local network. If you prefer to manage endpoints directly, you can disable WPAD.

Starting in Windows Server 2019 and Windows 10, version 1809, you can disable WPAD by setting a DWORD value for the following registry subkey to 1:

HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Internet Settings\WinHttp\DisableWpad