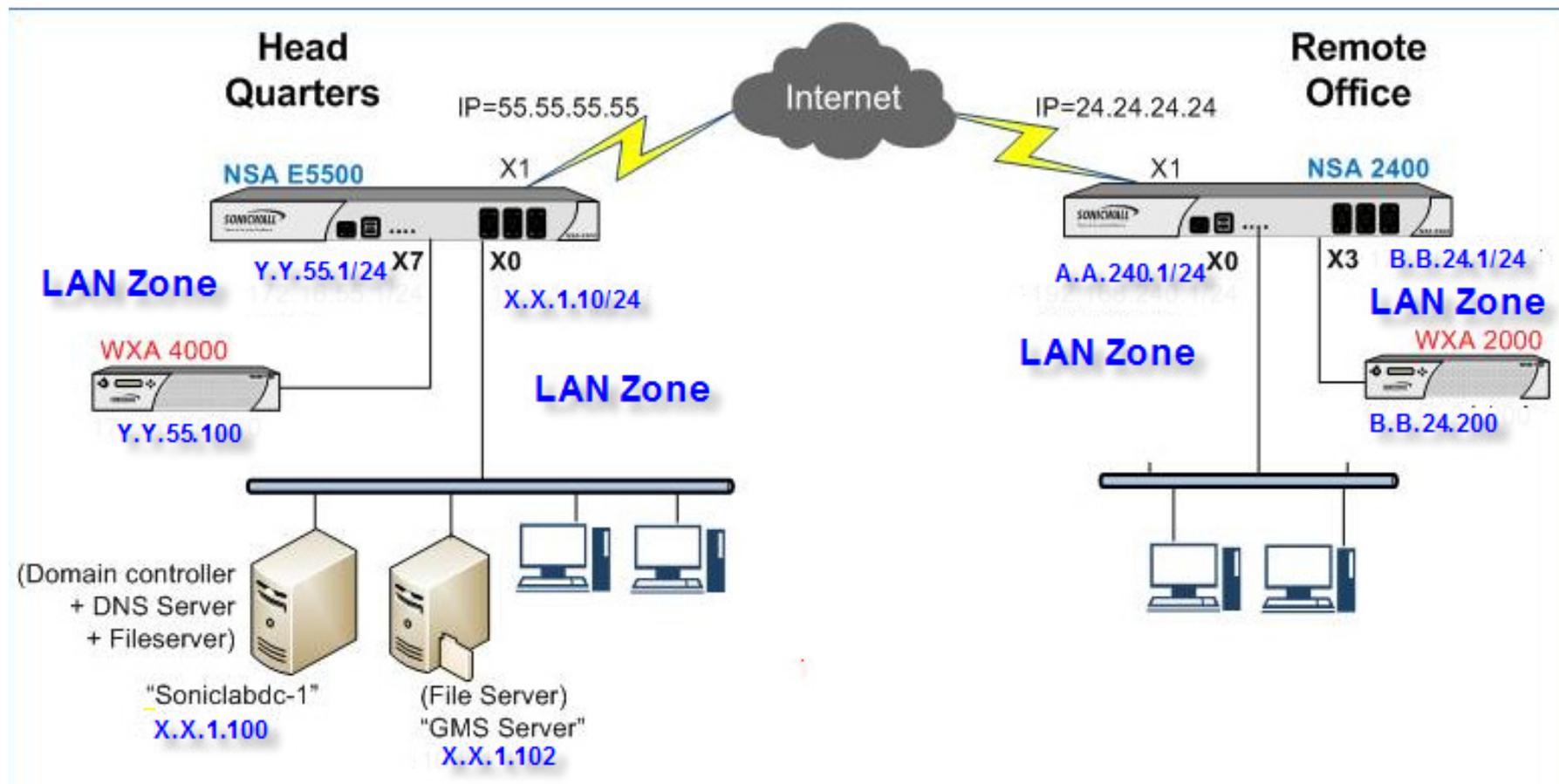


## How to configure WFS (Windows File Sharing ) Acceleration on SonicWALL WAN Acceleration Appliances

Consider the following typical deployment scenario where Head Quarters and Remote Office are connected via Site-Site VPN Tunnel.

SonicWALL WAN Acceleration devices are directly connected to the managing UTM appliances as shown at each location. At head quarters there is a Domain Controller, DNS Server and 2 file servers. Remote Office has no local domain controller, DNS server, File Servers. Users at remote office access the resources at the head quarters via Site-Site VPN.



### **Assumptions:**

There is a Site-Site VPN configured between Head Quarters and Remote Office using IPsec or Route based VPN. Please refer to the WAN Acceleration deployment modes articles/feature module for details of deployment modes.

### **Recommendations:**

1. Create Static DHCP scope for WXA Appliance on the managing SonicWALL UTM Appliance
2. If the remote offices also have Domain Controllers and DNS servers, it is recommended to use the local DNS server addresses and domain DNS name in the DHCP scope. Configure Domain Name and Domain DNS servers' addresses in the configured DHCP scope. WXA Appliance auto-discovers Kerberos, LDAP, NTP servers based on this information to assist in joining the Appliance to the domain.
3. Review the LDAP, Kerberos and NTP services. In a multi-site domain where Sites and Services are not explicitly configured, the WXA might choose servers that are at another remote site instead of at head office.
4. Though not essential, it is recommended to create Reverse Lookup Zone for the networks on DNS servers for the necessary local and remote networks for WFS to update PTR records. Reverse Lookup Zones configuration depends on whether WXA Appliance is using NAT'ed IP (of the Managing UTM Appliance's one of Interface IP address or other IP address) or using its own IP address (no NAT)
5. It is recommended that WXA Appliance gets NTP updates from local Domain Controller
6. It is recommended that the DNS server accepts secure updates
7. SonicWALL Recommends configuring the Zone properties of Interface to which SonicWALL WAN Acceleration WXA Appliance is connected as LAN Zone so that the default access rules allow traffic between WXA Appliances at both locations. This simplifies the process of configuration and deployments.
  - In the above deployment, access rules are necessary for the traffic coming from VPN->LAN and LAN->VPN to be open for WXA associated traffic and the default Zone properties of LAN takes care of handling traffic without manually adding or modifying any access rules. Both WXA Appliances deployed at each location should be able to communicate with each other without being blocked by access rules or firewall policies.

For example consider Head Quarters, if SonicWALL WXA Appliance is deployed in DMZ, then access rules must be configured/updated to allow traffic from VPN->DMZ, LAN->DMZ so that traffic to WXA Appliance from VPN (includes traffic from remote LAN Zone as well as from WXA Appliance) and from LAN zone (Traffic from Domain Controllers, DNS Servers, File Servers) is allowed to WXA Appliance. Similarly traffic must be allowed from DMZ headquarters to VPN remote must be allowed. If additional domain controllers and file servers are located in any other Zone

or custom zone, necessary access rules must be configured to allow traffic from/to WXA Appliance to those Zones as well. Similar configuration must be followed at the remote location. Custom Access rules depend on specifics of deployment scenarios.

The following services are being used by WAN Acceleration and Client PCs for Domain Controller, DNS Server, NTP server, File Server Services.

Client PCs require AD Server Services (TCP 135, 137, 139, 445) for file services and require AD Directory Services for Domain Services. WXA Appliances also require these services for Domain Services and file shares proxy.

<input type="checkbox"/>	▼	32	AD Directory Services						
			LDAP	TCP	389	389			
			LDAPS	TCP	636	636			
			NTP	UDP	123	123			
			DNS (Name Service)						
			Kerberos						
			DCE EndPoint	TCP	135	135			
			LDAP (UDP)	UDP	389	389			
			Host Name Server						
			AD NetBios Services						
			RPC Services	TCP	1025	5000			
			RPC Services (IANA)	TCP	49152	65535			
<input type="checkbox"/>	▼	33	AD Server						
			DCE EndPoint	TCP	135	135			
			AD NetBios Services						
<input type="checkbox"/>	▼	34	Host Name Server						
			Host Name Server TCP	TCP	42	42			
			Host Name Server UDP	UDP	42	42			
<input type="checkbox"/>	▼	35	AD NetBios Services						
			SMB	TCP	445	445			
			NetBios TCP	TCP	137	139			
			NetBios UDP	UDP	137	139			

**Steps involved:**

1. Pre-requisites
2. Enabling WFS acceleration and using correct IP address for WXA to use in NAT translation.
3. Joining WXA devices to the domain
4. Setting up shares
5. Testing shares

**Pre-requisites:**

1. Site-Site VPN policy is already configured between Head Quarters and remote site to allow traffic between the networks. It is not required to include WXA Subnets in the VPN Policy/Networks.
2. WXA Appliance at both locations are connected to their respective Interfaces/Zones and provisioned with IP address, Domain Name and Domain DNS Servers and NTP server. It is essential that WXA Appliances are configured to automatically get Domain DNS server and Domain Name information from the DHCP scope created for WXA Appliance. If the remote offices also have Domain Controllers and DNS servers, it is recommended to use the local DNS server addresses in the DHCP scope.

**SONICWALL** | Network Security Appliance

General | **DNS/WINS** | Advanced

**DNS Servers**

Domain Name:

Inherit DNS Settings Dynamically from the SonicWALL's DNS settings

Specify Manually

DNS Server 1:

DNS Server 2:

DNS Server 3:

**WINS Servers**

WINS Server 1:

WINS Server 2:

Ready

OK Cancel Help

**Enabling WFS acceleration and using correct IP address for WXA to use in NAT translation:**

As mentioned in pre-requisite # 1, it is not required to include WXA Subnets in the VPN Policy/Networks. By default WXA Appliances uses NAT'ed IP of X0 interface IP address of Managing UTM Appliance for communications and it is essential that the NAT'ed IP be a part of VPN networks. For example, WXA 4000 that is deployed at headquarters gets NAT'ed to X.X.1.10 and WXA 2000 at remote gets NAT'ed to A.A.240.1. WXA Appliances at both the locations use these NAT'ed IP addresses for communication and hence eliminate the necessity to include WXA subnets as a part of VPN Networks. For NAT'ed IP address, it can be Managing UTM appliance's interface IP address or any IP address that is not used by any other device. But the IP address being has to be a part of the VPN networks in either case. But for simplicity, you can choose to use Managing UTM appliance's Interface IP address so that another IP is not needed. NAT policies that are essential are automatically created based on the NAT'ed IP address being used as shown below.

On the managing SonicWALL UTM appliance, navigate to WAN Acceleration->WFS Acceleration and enable WFS Acceleration.



Auto-created NAT Policies on Head Quarters UTM Appliance.

#	Source		Destination		Service		Interface		Priority	Comment	Enable	Configure
	Original	Translated	Original	Translated	Original	Translated	Inbound	Outbound				
<input type="checkbox"/> 75	Any	Original	X0 IP	WXA Appliance	AD Server	Original	Any	Any	39		<input checked="" type="checkbox"/>	
<input type="checkbox"/> 76	WXA Appliance	X0 IP	Any	Original	AD Directory Services	Original	X7	Any	40		<input checked="" type="checkbox"/>	

Auto-created NAT Policies on remote Site UTM Appliance.

#	Source		Destination		Service		Interface		Priority	Comment	Enable	Configure
	Original	Translated	Original	Translated	Original	Translated	Inbound	Outbound				
<input type="checkbox"/> 18	Any	Original	X0 IP	WXA Appliance	AD Server	Original	Any	Any	18		<input checked="" type="checkbox"/>	
<input type="checkbox"/> 19	WXA Appliance	X0 IP	Any	Original	AD Directory Services	Original	X3	Any	19		<input checked="" type="checkbox"/>	

**Joining WXA Appliances to the domain:**

Once WXA Appliances are configured properly with DHCP scope, based on the Domain Name and configured DNS servers, WXA Appliances automatically discovers FQDN of the domain, NetBIOS name, Kerberos, LDAP, Time Server. If any of them are not discovered properly, then that entry can be manually edited. For example, in this case, NetBIOS name is not correctly identified and is discovered as UTM and needs manual editing.

Host name can be edited or changed as per requirement.

Below screenshots are taken on head Quarters WXA 4000 Appliance and the steps to add remote site WXA to the domain are the same.

# WFS Acceleration



• The appliance has not yet joined the specified domain. You must either create an account for the appliance on the domain or have it join the domain using Administrator

Configuration

Domain Details

Shares

Statistics

Tools

The information shown in the table has been discovered from the network. Certain fields can be overridden by being configured manually.

Fully Qualified Domain Name:	utm.sonicdab.us	[Discovered]		▼
NETBIOS Domain:	UTM	[Discovered]		▼
Hostname:	WXA4000-57F518E			▼
Kerberos Server:	sonicabdc-1.utm.sonicdab.us:88	[Discovered]		▼
LDAP Server:	sonicabdc-1.utm.sonicdab.us:389	[Discovered]		▼
Joined Domain:	<input type="checkbox"/>			▼
Machine Account Exists:	<input type="checkbox"/>			▼
Trusted for Delegation:	<input type="checkbox"/>			▼

Auto-Discovery of Domain related information

If auto-discovery fails to correctly identify any value, entries can be manually updated

## Other System Settings

Other system settings that also affect the functioning of the WFS Acceleration module are shown below.

Time Synchronization Source:	sonicabdc-1.utm.sonicdab.us:88	[Domain Controller]		▼
Primary DNS Server:	X.X.1.100	[DHCP]		▼
Secondary DNS Server:				▼

Advanced Options

Join Domain

Test Configuration

Flush Cache

Restart WFS

In this case, Hostname and NetBIOS are edited

<h3>Configure Hostname</h3> <p>Default hostname: WXA4000-57F518E Leave the input field blank in order to use the default.</p> <p><b>Hostname:</b> <input type="text" value="WXA-4000"/></p> <p><input type="button" value="Apply"/> <input type="button" value="Cancel"/></p>	<h3>Configure Domain</h3> <p>Discovered domain: utm.soniclab.us Discovered NETBIOS: UTM</p> <p><b>Fully Qualified Domain Name:</b> <input type="text" value="utm.soniclab.us"/></p> <p><input type="checkbox"/> Use Discovered value for NETBIOS Domain</p> <p><b>NETBIOS Domain:</b> <input type="text" value="soniclabus"/></p> <p><input type="button" value="Apply"/> <input type="button" value="Cancel"/></p>
---	---

Once all the necessary edits are done, click on “Join Domain” to add WXA Appliance to the domain using the domain account that has permissions to join to the domain.

### Join Domain

Enter the username and password of an account that can join the SonicWALL WXA series appliance to the domain. Please refer to the documentation for more details.

Using an Administrator's credentials will ensure that the appliance is "trusted for delegation". Otherwise, you will need to configure that option on the Domain Controller.

**Username:**

**Password:**

WXA at Head Quarters added to the domain.

## WFS Acceleration



• You must configure the servers and shares to which acceleration will be applied on the Shares page.

Configuration

Domain Details

Shares

Statistics

Tools

### Configured Domain

Fully Qualified Domain Name:	utm.sonidab.us	[Configured]	  ▾
NETBIOS Domain:	sonidabus	[Configured]	  ▾
Hostname:	WXA4000	[Configured]	  ▾
Kerberos Server:	sonidabdc-1.utm.sonidab.us:88	[Discovered]	 ▾
LDAP Server:	sonidabdc-1.utm.sonidab.us:389	[Discovered]	▾
Joined Domain:	<input checked="" type="checkbox"/>		▾
Machine Account Exists:	<input checked="" type="checkbox"/>		▾
Trusted for Delegation:	<input checked="" type="checkbox"/>		▾

### Other System Settings

Other system settings that also affect the functioning of the WFS Acceleration module are shown below.

Time Synchronization Source:	sonidabdc-1.utm.sonidab.us:88	[Domain Controller]	 ▾
Primary DNS Server:	10.2.1.X.X.1.100	[DHCP]	▾
Secondary DNS Server:			▾

Advanced Options

Rejoin Domain

Unjoin Domain

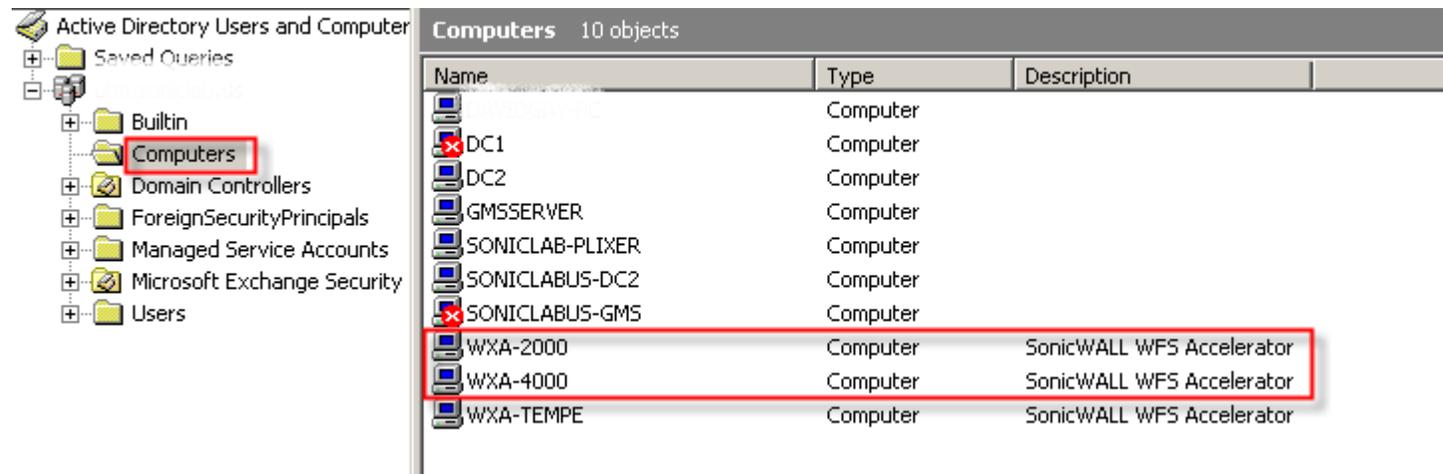
Test Configuration

Flush Cache

Restart WFS

Follow the same steps to add WXA2000 at remote office to the domain.

Once both WXA Appliances are added to the domain, corresponding Computer Accounts for WXA Appliances, DNS Host name and PTR records are automatically created on Domain Controller and DNS servers as shown. For PRT records to get updated, relevant Reverse Lookup Zones could be configured on the DNS servers. Networks used for reverse lookup Zones depend on whether WFS acceleration is using NAT or no NAT. In this deployment, WXA uses NAT'ed IP for WFS Services and only the X0 Subnets are used as Networks in Reverse Lookup Zones. If WXA Appliances are not using NAT, then reverse Look up Zone networks could also be configured for WXA Subnets at both locations.



DNS

- SONICLABDC-1
  - Forward Lookup Zones
    - \_msdcs.utm.soniclab.us
    - utm.soniclab.us
  - Reverse Lookup Zones
    - 1.x Subnet
    - 192.168.20.x Subnet
    - 192.168.240.x Subnet
    - 10.10.10.x Subnet
  - Event Viewer

utm.soniclab.us 17 record(s)

Name	Type	Data
_msdcs		
_sites		
_tcp		
_udp		
DomainDnsZones		
ForestDnsZones		
TAPI3Directory		
(same as parent folder)	Start of Authority (SOA)	[1983], soniclabdc-1.utm.so...
(same as parent folder)	Name Server (NS)	soniclabdc-1.utm.soniclab.us.
(same as parent folder)	Host (A)	192.168.240.1
(same as parent folder)	Host (A)	192.168.240.2
DC2	Host (A)	192.168.240.200
GMSServer	Host (A)	192.168.240.201
soniclabdc-1	Host (A)	192.168.240.1
soniclabus-dc2	Host (A)	192.168.240.202
wxa-2000	Host (A)	A.A.240.1
wxa-4000	Host (A)	X.X.1.10

DNS

- SONICLABDC-1
  - Forward Lookup Zones
    - \_msdcs.utm.soniclab.us
    - utm.soniclab.us
  - Reverse Lookup Zones
    - X.X.1.x Subnet
    - 192.168.240.x Subnet
    - 10.10.10.x Subnet
  - Event Viewer

Subnet 7 record(s)

Name	Type	Data
(same as parent folder)	Start of Authority (SOA)	[50], soniclabdc-1.utm.sonic...
(same as parent folder)	Name Server (NS)	soniclabdc-1.utm.soniclab.us.
(same as parent folder)	Name Server (NS)	dc1.utm.soniclab.us.
X.X.1.10	Pointer (PTR)	wxa-4000.utm.soniclab.us.
192.168.240.1	Pointer (PTR)	soniclabdc-1.utm.soniclab.us.
192.168.240.2	Pointer (PTR)	soniclabus-dc2.utm.soniclab...
192.168.240.201	Pointer (PTR)	gmsserver.utm.soniclab.us.

Name	Type	Data
(same as parent folder)	Start of Authority (SOA)	[47], soniclabdc-1.utm.sonic...
(same as parent folder)	Name Server (NS)	soniclabdc-1.utm.soniclab.us.
(same as parent folder)	Name Server (NS)	dc1.utm.soniclab.us.
A.A.240.1	Pointer (PTR)	wxa-2000.utm.soniclab.us.
	Pointer (PTR)	dc2.utm.soniclab.us.

## **Adding File Shares:**

Adding Shares that are hosted on 2 file servers at head quarters.

- Adding /Configuring Shares that are hosted on 1<sup>st</sup> File Server
  - Configuration on HQ WXA Appliance
  - Configuration on Remote WXA Appliance
- Adding/Configuring Shares that are hosted on 2<sup>nd</sup> File Server
  - Creating Service Principle Names (SPNs) for mapping shares. More on SPNs creation is discussed below.
  - Configuration on HQ WXA Appliance
  - Configuration on Remote WXA Appliance

### **1. Adding Shares that are hosted on 1st File Server:**

To add shares, you can choose to add all available shares or choose specific shares. For adding shares on the first file server, you can use WXA-4000 as Hostname for Head Quarters WXA Appliance and WXA-2000 as hostname for remote WXA Appliance.

Adding 2<sup>nd</sup> and subsequent shares that are hosted on different file servers requires creation of Service Principle Names (SPN) on Active Directory.

## Configuring 1<sup>st</sup> File Server shares on Head Quarters WXA-4000

Navigate to WAN Acceleration-> WFS Acceleration->Shares and add shares. In this deployment, as the File Servers are located at Head Quarters, WXA Appliance at Head Quarters directly access these file servers. So on head Quarters WXA Appliance, Remote Server name points to the actual File Server and the Local Server name is the WXA Appliance at head quarters.

WAN Acceleration /

### WFS Acceleration



• You must configure the servers and shares to which acceleration will be applied on the Shares page.

Configuration

Domain Details

Shares

Statistics

Tools

[Add New Server...](#)

Remote Server Name	Local Device Name	Default Cache Enabled	Default Cache Read Ahead	Configure
--------------------	-------------------	-----------------------	--------------------------	-----------

#### Add Server

Actual File Server

Remote Server Name: SONICLABDC-1

SONICLABDC-1

Local Device Name: wxa-4000

wxa-4000

Default Cache Enabled:

Default Cache Read Ahead: 32000 bytes

Add All Shares:

Apply

Cancel

Head Quarters WXA-4000 that maps to the real file server

### Configuring 1<sup>st</sup> File Server shares on Remote WXA-2000

Navigate to WAN Acceleration-> WFS Acceleration->Shares and add shares. In this deployment, as the file servers are located at Head Quarters, remote WXA Appliance accesses these shares via WXA Appliance at Head Quarters. So on remote office WXA Appliance, Remote Server name points to the Head Quarters WXA-4000 and the Local Server name is the WXA Appliance at remote office.

WAN Acceleration /

## WFS Acceleration

The screenshot shows the 'WFS Acceleration' configuration window with the 'Shares' tab selected. A red arrow points to the 'Add New Server...' link. Below it is a table with columns: Remote Server Name, Local Device Name, Default Cache Enabled, Default Cache Read Ahead, and Configure. An 'Add Server' dialog box is open, containing the following fields:

- Remote Server Name: WXA-4000 (with a 'Look Up' button)
- Local Device Name: wxa-2000 (with a 'Look Up' button)
- Default Cache Enabled:
- Default Cache Read Ahead: 32000 bytes
- Add All Shares:

At the bottom of the dialog are 'Apply' and 'Cancel' buttons. Blue annotations with red arrows provide context: 'Head Quarters WXA-4000. Here local WXA-2000 points to head quarters WXA-4000' points to the Remote Server Name field, and 'Remote Office WXA-2000' points to the Local Device Name field.

## 2. **Adding Shares that are hosted on 2nd File Server:**

Adding 2<sup>nd</sup> and subsequent shares that are hosted on different file servers requires creation of Service Principle Names (SPN) on Active Directory. These SPNs are used as CIFS service names when mapping and accessing File Server shares. For more information on how to create additional SPNs, please refer to the following Microsoft Knowledgebase article.

<http://technet.microsoft.com/en-us/library/cc737007%28WS.10%29.aspx>

<http://social.technet.microsoft.com/wiki/contents/articles/service-principal-names-spns.aspx>

Creation of SPNs shown below is used for demonstration purposes only and additional references and knowledge of customer is required while creating/modifying/deleting SPN entries on Domain Controllers.

### **Create Service Principle Names for head Quarters and Remote Office WXA Appliances for CIFS/SMB Traffic**

For setting up file shares that are hosted on 2<sup>nd</sup> File Server, WXA-4000-GMS is used as Hostname for Head Quarters WXA and WXA-2000-GMS is used as Hostname for remote Office WXA

#### **For Head Quarters WXA Appliance**

Command Prompt

Microsoft Windows [Version 5.2.3790]  
(C) Copyright 1985-2003 Microsoft Corp.

C:\Documents and Settings\Administrator.SONICLABDC-1>setspn

Usage: setspn [switches data] computername  
Where "computername" can be the name or domain\name

Switches:

-R = reset HOST ServicePrincipalName  
Usage: setspn -R computername  
-A = add arbitrary SPN  
Usage: setspn -A SPN computername  
-D = delete arbitrary SPN  
Usage: setspn -D SPN computername  
-L = list registered SPNs  
Usage: setspn [-L] computername

Examples:

setspn -R daserver1

It will register SPN "HOST/daserver1" and "HOST/{DNS of daserver1}"

setspn -A http/daserver daserver1

It will register SPN "http/daserver" for computer "daserver1"

setspn -D http/daserver daserver1

It will delete SPN "http/daserver" for computer "daserver1"

C:\Documents and Settings\Administrator.SONICLABDC-1>setspn -L WXA-4000

Registered ServicePrincipalNames for CN=WXA-4000,CN=Computers,DC=utm,DC=soniclab,DC=us:  
host/wxa-4000  
host/wxa-4000.utm.soniclab.us

Current listing of SPN for  
WXA-4000

C:\Documents and Settings\Administrator.SONICLABDC-1>setspn -A CIFS/WXA-4000-GMS WXA-4000

Registering ServicePrincipalNames for CN=WXA-4000,CN=Computers,DC=utm,DC=soniclab,DC=us  
CIFS/WXA-4000-GMS  
Updated object

Adding WXA-4000-GMS  
hostname as SPN for host  
WXA-4000

C:\Documents and Settings\Administrator.SONICLABDC-1>setspn -A CIFS/WXA-4000-GMS.utm.soniclab.us WXA-4000

Registering ServicePrincipalNames for CN=WXA-4000,CN=Computers,DC=utm,DC=soniclab,DC=us  
CIFS/WXA-4000-GMS.utm.soniclab.us  
Updated object

Adding WXA-4000-  
GMS.utm.soniclab.us  
hostname as SPN for host  
WXA-4000

C:\Documents and Settings\Administrator.SONICLABDC-1>

C:\Documents and Settings\Administrator.SONICLABDC-1>setspn -L WXA-4000

Registered ServicePrincipalNames for CN=WXA-4000,CN=Computers,DC=utm,DC=soniclab,DC=us:  
CIFS/WXA-4000-GMS.utm.soniclab.us  
CIFS/WXA-4000-GMS  
host/wxa-4000  
host/wxa-4000.utm.soniclab.us

**For Remote Office WXA Appliance**

```
C:\Documents and Settings\Administrator.SONICLABDC-1>setspn -L WXA-2000
Registered ServicePrincipalNames for CN=WXA-2000,CN=Computers,DC=utm,DC=soniclab,DC=us:
  host/wxa-2000
  host/wxa-2000.utm.soniclab.us
```

**Current listing of SPN for WXA-2000**

```
C:\Documents and Settings\Administrator.SONICLABDC-1>
C:\Documents and Settings\Administrator.SONICLABDC-1>setspn -A CIFS/WXA-2000-GMS WXA-2000
Registering ServicePrincipalNames for CN=WXA-2000,CN=Computers,DC=utm,DC=soniclab,DC=us
  CIFS/WXA-2000-GMS
Updated object
```

**Adding WXA-2000-GMS hostname as SPN for WXA-2000**

```
C:\Documents and Settings\Administrator.SONICLABDC-1>setspn -A CIFS/WXA-2000-GMS.utm.soniclab.us WXA-2000
Registering ServicePrincipalNames for CN=WXA-2000,CN=Computers,DC=utm,DC=soniclab,DC=us
  CIFS/WXA-2000-GMS.utm.soniclab.us
Updated object
```

**Adding WXA-2000-GMS.utm.soniclab.us hostname as SPN for WXA-2000**

```
C:\Documents and Settings\Administrator.SONICLABDC-1>
C:\Documents and Settings\Administrator.SONICLABDC-1>setspn -L WXA-2000
Registered ServicePrincipalNames for CN=WXA-2000,CN=Computers,DC=utm,DC=soniclab,DC=us:
  CIFS/WXA-2000-GMS.utm.soniclab.us
  CIFS/WXA-2000-GMS
  host/wxa-2000
  host/wxa-2000.utm.soniclab.us
```

```
C:\Documents and Settings\Administrator.SONICLABDC-1>
```

### **Configuring 2<sup>nd</sup> File Server shares on Head Quarters WXA-4000**

Navigate to WAN Acceleration-> WFS Acceleration->Shares and add shares. In this deployment, as the File Servers are located at Head Quarters, WXA Appliance at Head Quarters directly access these file servers. So on head Quarters WXA Appliance, Remote Server name points to the actual File Server and the Local Server name is the WXA Appliance at head quarters.

On head Quarters WXA Appliance, Remote Server name points to the actual File Server (2<sup>nd</sup> File Server) and the Local Server name is the SPN name created for WXA Appliance at head quarters – (WXA-4000-GMS)

**Add Server**

Remote Server Name: GMSSERVER

Local Device Name: WXA-4000-GMS

Default Cache Enabled:

Default Cache Read Ahead: 32000 bytes

Add All Shares:

2nd File Server

Head Quarters WXA SPN (WXA-4000-GMS) that points to the 2nd File Server

### **Configuring 2<sup>nd</sup> File Server shares on WXA-2000**

Navigate to WAN Acceleration-> WFS Acceleration->Shares and add shares. In this deployment, as the file servers are located at Head Quarters, remote WXA Appliance accesses these shares via WXA Appliance at Head Quarters. So on remote office WXA Appliance, Remote Server name points to the Head Quarters WXA-4000 and the Local Server name is the WXA Appliance at remote office.

On remote office WXA Appliance, Remote Server name points to the Head Quarters WXA-4000-GMS (newly created SPN) and the Local Server name is the WXA Appliance newly created SPN at remote office – (WXA-2000-GMS)

**Add Server**

Remote Server Name:

Local Device Name:

Default Cache Enabled:

Default Cache Read Ahead:  bytes

Add All Shares:

Remote Office WXA-2000-GMS SPN that is created for 2nd File Server

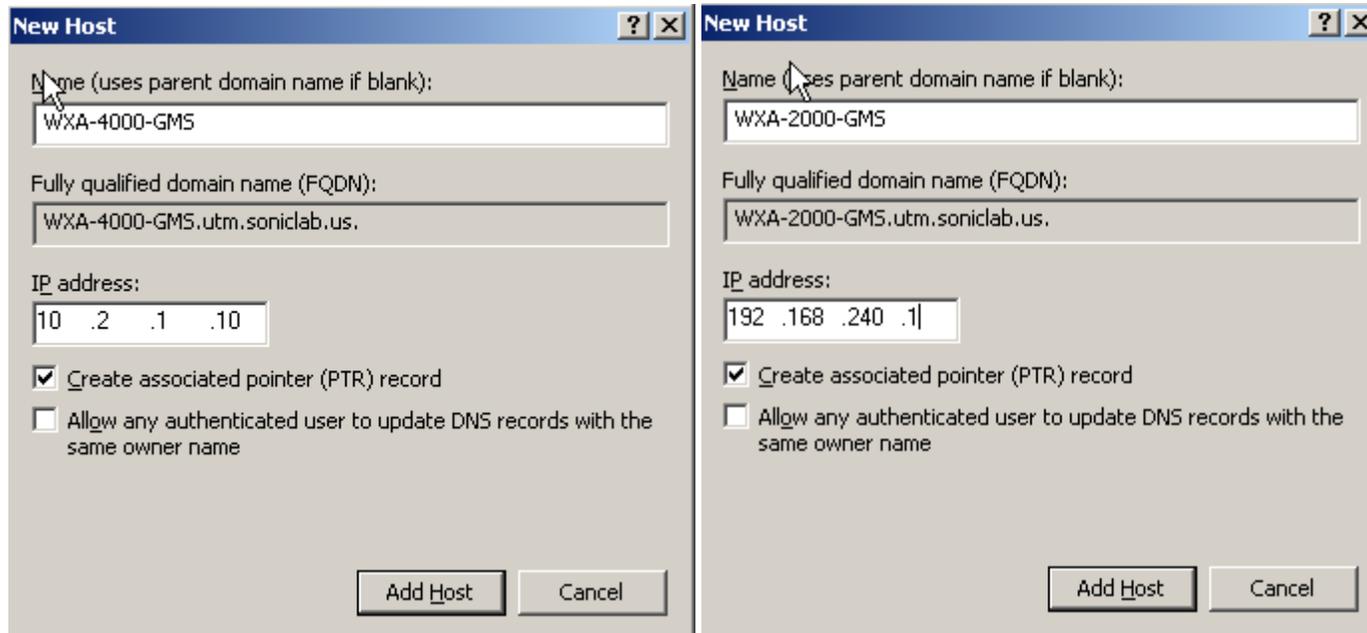
Head Quarters WXA-4000-GMS SPN that is created for 2nd File Server

Once the shares are configured for 2<sup>nd</sup> File Server, WXA Appliances updates A record and the associated PTR record for newly created SPNs (depending on Reverse Lookup Zone) on DNS server using the NAT'ed IP. If for some reason the creation on A record and PTR doesn't succeed, domain Admin can manually add them as shown below.

### **Manually adding SPN hostnames in DNS**

Create new Host (A) records in DNS for the newly created SPNs as shown below and appropriately choose the option to update corresponding PTR record as well.

The newly created Hostname for Head Quarters WXA should be updated with the NAT'ed IP of X0 Interface of head Quarters UTM Appliance and newly created Hostname for remote office WXA should be updated with the NAT'ed IP of X0 Interface of remote office UTM Appliance as shown below



Once these A record and PTR record are created for Head Quarters and Remote Office WXA Appliances, you can ping them using these hostnames which resolves to NAT'ed IPs of Xo interfaces at Head Quarters and Remote Offices UTM Appliances.

Now WXA-4000 and WXA-4000-GMS should resolve to X.X.1.100 and WXA-2000 and WXA-2000-GMS should resolve to A.A.240.1

**Final Shares on Head Quarters WXA Appliance:**

WAN Acceleration /

## WFS Acceleration

Configuration    Domain Details    **Shares**    Statistics    Tools

[Add New Server...](#)

Remote Server Name	Local Device Name	Default Cache Enabled	Default Cache Read Ahead	Configure								
SONICLABDC-1	wxa-4000	<input checked="" type="checkbox"/>	32000	 								
<div><p><b>Shares</b></p><p><a href="#">Add New Share...</a></p><table border="1"><thead><tr><th>Name</th><th>Cache Enabled</th><th>Cache Read Ahead</th><th>Configure</th></tr></thead><tbody><tr><td>-ALL SHARES-</td><td><input checked="" type="checkbox"/></td><td>32000</td><td> </td></tr></tbody></table></div>					Name	Cache Enabled	Cache Read Ahead	Configure	-ALL SHARES-	<input checked="" type="checkbox"/>	32000	 
Name	Cache Enabled	Cache Read Ahead	Configure									
-ALL SHARES-	<input checked="" type="checkbox"/>	32000	 									
GMSSERVER	WXA-4000-GMS	<input checked="" type="checkbox"/>	32000	 								
<div><p><b>Shares</b></p><p><a href="#">Add New Share...</a></p><table border="1"><thead><tr><th>Name</th><th>Cache Enabled</th><th>Cache Read Ahead</th><th>Configure</th></tr></thead><tbody><tr><td>-ALL SHARES-</td><td><input checked="" type="checkbox"/></td><td>32000</td><td> </td></tr></tbody></table></div>					Name	Cache Enabled	Cache Read Ahead	Configure	-ALL SHARES-	<input checked="" type="checkbox"/>	32000	 
Name	Cache Enabled	Cache Read Ahead	Configure									
-ALL SHARES-	<input checked="" type="checkbox"/>	32000	 									

**Final Shares on Remote Office WXA Appliance:**

WAN Acceleration /

## WFS Acceleration

Configuration   Domain Details   **Shares**   Statistics   Tools

[Add New Server...](#)

Remote Server Name	Local Device Name	Default Cache Enabled	Default Cache Read Ahead	Configure								
WXA-4000	wxa-2000	<input checked="" type="checkbox"/>	32000	<b>Shares</b> <a href="#">Add New Share...</a> <table border="1"><thead><tr><th>Name</th><th>Cache Enabled</th><th>Cache Read Ahead</th><th>Configure</th></tr></thead><tbody><tr><td>-ALL SHARES-</td><td><input checked="" type="checkbox"/></td><td>32000</td><td> </td></tr></tbody></table>	Name	Cache Enabled	Cache Read Ahead	Configure	-ALL SHARES-	<input checked="" type="checkbox"/>	32000	
Name	Cache Enabled	Cache Read Ahead	Configure									
-ALL SHARES-	<input checked="" type="checkbox"/>	32000										
wxa-4000-gms	WXA-2000-GMS	<input checked="" type="checkbox"/>	32000	<b>Shares</b> <a href="#">Add New Share...</a> <table border="1"><thead><tr><th>Name</th><th>Cache Enabled</th><th>Cache Read Ahead</th><th>Configure</th></tr></thead><tbody><tr><td>-ALL SHARES-</td><td><input checked="" type="checkbox"/></td><td>32000</td><td> </td></tr></tbody></table>	Name	Cache Enabled	Cache Read Ahead	Configure	-ALL SHARES-	<input checked="" type="checkbox"/>	32000	
Name	Cache Enabled	Cache Read Ahead	Configure									
-ALL SHARES-	<input checked="" type="checkbox"/>	32000										

**Testing:**

All shares should be identical whether accessed using shares using real File Sever, or shares using Head Quarters WXA Share name or Remote Office Share Name.

In this case, Remote Office users should use [\\WXA-2000](#) and [\\WXA-2000-GMS](#) as share names to access resources on the Head Quarters that are actually hosted on File Server 1 and File Server 2. Head office users must access the shares using the Real Server as the actual servers are local in this case.

Network administrators must also map the real shares mapped to the real server for redundancy in case of WXA appliance at remote office goes down.

\\soniclabdc-1

File Edit View Favorites Tools Help

Back Search Folders

Address \\soniclabdc-1 Go

Name	Comments
DC-FileShare	
NETLOGON	Logon server share
SONICLABDC-1.LOG	Exchange message tracking logs
SYSVOL	Logon server share
Printers and Faxes	Shows installed printers and fax ...
Scheduled Tasks	Schedule computer tasks to run ...

\\wxa-4000

File Edit View Favorites Tools Help

Back Search Folders

Address \\wxa-4000 Go

Name	Comments
DC-FileShare	
NETLOGON	Logon server share
SONICLABDC-1.LOG	Exchange message tracking logs
SYSVOL	Logon server share
Printers and Faxes	Shows installed printers and fax ...

\\wxa-2000

File Edit View Favorites Tools Help

Back Search Folders

Address \\wxa-2000 Go

Name	Comments
DC-FileShare	
NETLOGON	Logon server share
SONICLABDC-1.LOG	Exchange message tracking logs
SYSVOL	Logon server share
Printers and Faxes	Shows installed printers and fax ...



\\gmsserver

File Edit View Favorites Tools Help

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Name	Comments
GMSVP	
Scheduled Tasks	Schedule computer tasks to run ...

\\wxa-4000-gms

File Edit View Favorites Tools Help

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Address \\wxa-4000-gms Go

Name	Comments
GMSVP	

\\wxa-2000-gms

File Edit View Favorites Tools Help

Back Search Folders

Address \\wxa-2000-gms Go

Name	Comments
GMSVP	

**Tools available for testing and troubleshooting:**

WAN Acceleration /

## WFS Acceleration

Configuration   Domain Details   Shares   Statistics   **Tools**

Diagnostic Tool: DNS Name Lookup ▼

- DNS Name Lookup
- Available Shares
- Test WFS Configuration
- List Kerberos Servers

**DNS Name**

**Primary DNS:** 10.2.1.100

---

**Secondary DNS:**

---

**Lookup Name or IP:**