

# SANGFOR WANO

# Exchange Acceleration

# Guide

SANGFOR Technologies Co., Ltd.

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# WANO Exchange Acceleration Guide

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## 1. Backgroud

### 1.1 Protocol support

Protocol	Status
SMTP	Y
POP	Y
TLS/SSL	Y
MAPI	Y

### 1.2 Exchange version support

Server Outlook	2003	2007	2010	2013	2016
2003	Y	Y	Y	Y	N
2007	Y	Y	Y	Y	N
2010	Y	Y	Y	Y	N
2013	Y	Y	Y	Y	N
2016	N	N	N	N	N
365	N	N	N	N	N

(This Explain from latest version 9.1R1, Nov.2015)

### 1.3 Things that customer need to prepare

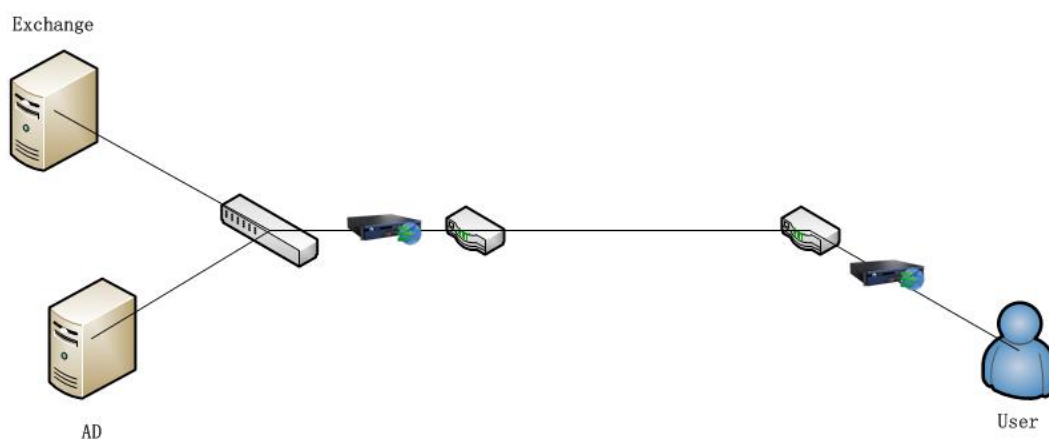
According to the following scenarios, there is(are) 1-3 things need customer to prepare:

1. WANO use administrator account to join domain
2. Create a domain user for WANO and use this account delegate Exchange server ExchangeMDB service
3. Import Exchange CA to WANO

**Make sure customer prepare the above things in advance!**

## 2. Exchange Scenarios

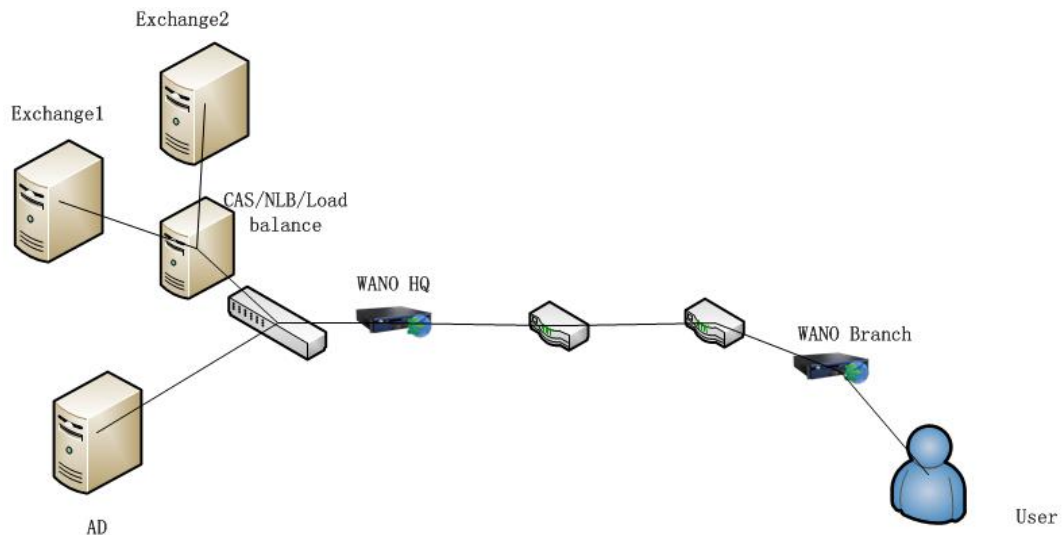
**Scenario 1 : Single Domain/ Centralized AD server/ Centralized Exchange server/ Single Exchange server**



<b>Scenarios</b>	Single Domain/ Centralized AD server/ Centralized Exchange server/ Single Exchange server
<b>Version requested</b>	9.1SP1 or above

Item	Email protocol enabled	WANO configuration
1	SMTP/POP3	Enable SMTP/POP3 Proxy
2	SMTP/POP3 over SSL	1. Import Exchange server certificate to WANO, configure certificate IP as Exchange server IP, configure port as 0 2. Enable SMTP/POP3 Proxy
3	MAPI	1. WANO join domain 2. Create a domain user for WANO and use this account delegate Exchange server ExchangeMDB service 3. Sync WANO time zone/date/time with AD, keep time differ in 30s, and then use delegation mode in exchange proxy. 4. Outlook anywhere need to import Exchange server certificate to WANO , configure certificate IP as Exchange sever IP, configure port as 0
4	WebMail	1. Import Exchange server certificate to WANO 2. Enable SSL proxy

## Scenario 2 : Single Domain/ Centralized AD server/ Centralized Exchange server / Exchange server cluster



<b>Scenarios</b>	Single Domain/ Centralized AD server/ Centralized Exchange server / Exchange server cluster
<b>Version requested</b>	9.1R1/9.3 or above

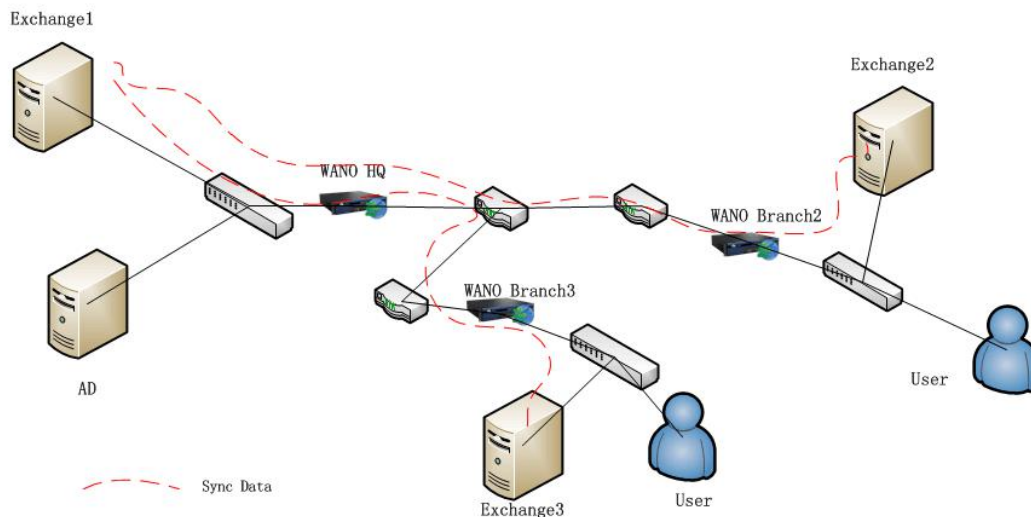
Item	Email protocol enabled	WANO configuration
1	SMTP/POP3	Enable SMTP/POP3 Proxy
2	SMTP/POP3 over SSL	1. Import Exchange server certificate to WANO, configure certificate IP as Exchange server IP, configure port as 0 2. Enable SMTP/POP3 Proxy
3	MAPI	1. WANO join Domain 2. Create a domain user for WANO and use this account delegate all Exchange server ExchangeMDB service 3. Sync WANO time zone/date/time with AD, keep time differ in 30s, and then use delegation mode in exchange proxy. 4.outlookanywhere need to import Exchange server certificate to WANO ,configure certificate IP as Cluster IP,configure port as 0
4	WebMail	1. Import Exchange server certificate to WANO , Certificate IP set Cluster IP, port set 0 2. Enable SSL proxy



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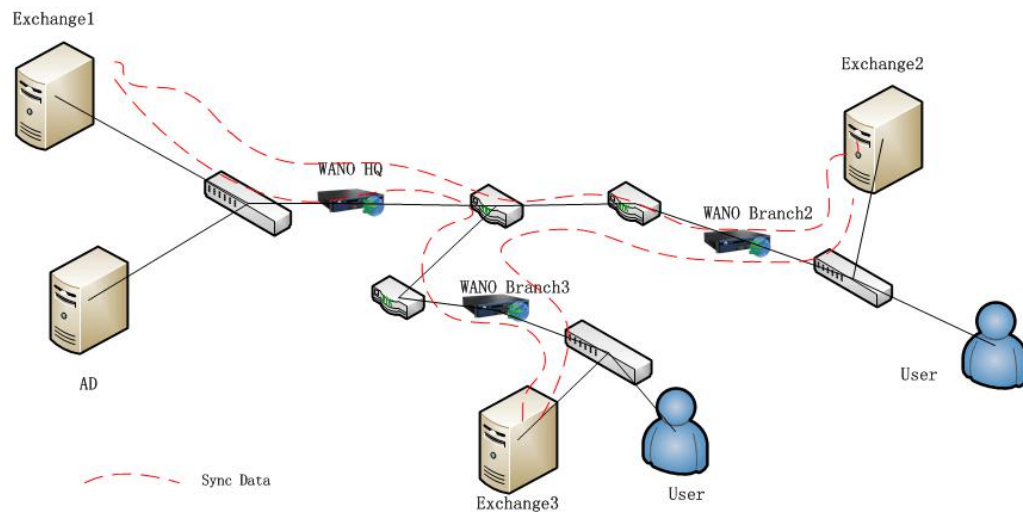
### Scenario 3 : Single Domain/ Centralized AD server/ Distributed Exchange server / Single Exchange server ①



<b>Scenarios</b>	Single Domain/ Centralized AD server/ Distributed Exchange server / Single Exchange server① (Each Exchange server communicate and sync to each other directly )
<b>Version requested</b>	9.1R1 or above

Item	Email protocol enabled	WANO configuration
1	SMTP/POP3	Enable SMTP/POP3 proxy
2	SMTP/POP3 over SSL	1. Import Exchange1 certificate to WANO HQ, configure Certificate IP as Exchange 1 server IP, configure port as 0 2. Import Exchange2 certificate to WANO Branch2, configure certificate IP as Exchange2 IP, configure port as 0 3. Import Exchange3 certificate to WANO Branch3, configure certificate IP as Exchange3 IP, configure port as 0 4. Enable SMTP/POP3 proxy
3	MAPI	N/A
4	WebMail	N/A

## Scenario 4 : Single Domain/ Centralized AD server/ Distributed Exchange server / Single Exchange server ②

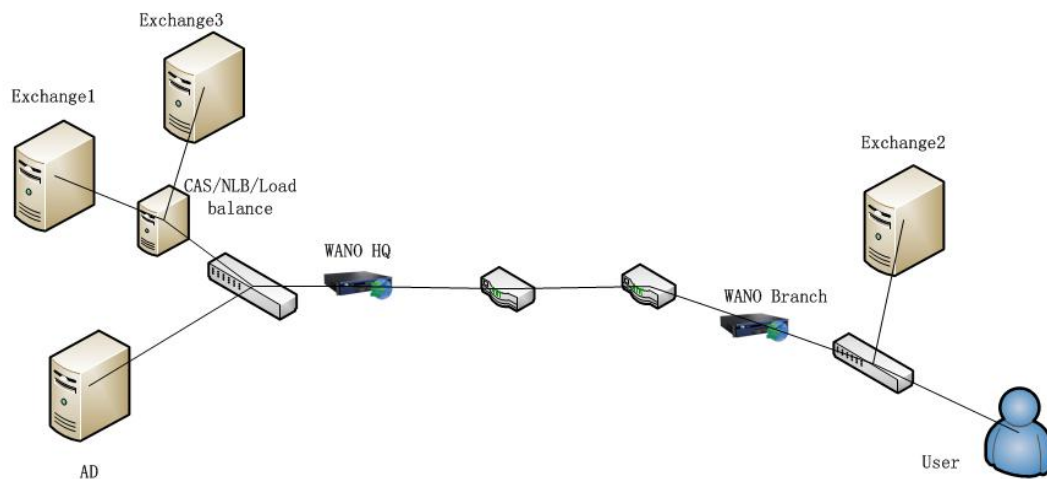


<b>Scenarios</b>	Multi site/ Single Domain/ Single AD/ Single Exchange (All branch exchange sync to HQ exchange ,then HQ exchange sync to other Exchange servers)
<b>Version requested</b>	9.1R1 or above

Item	Email protocol enabled	WANO configuration
1	SMTP/POP3	Enable SMTP/POP3 proxy
2	SMTP/POP3 over SSL	1. Import Exchange1 certificate to WANO HQ, configure certificate IP as Exchange1 IP, configure port as 0 2. Import Exchange2 certificate to WANO Branch2, configure certificate IP as Exchange2 IP, configure port as 0 3. Import Exchange3 certificate to WANO Branch3, configure certificate IP as Exchange3 IP, configure port as 0 4. Enable SMTP/POP3 proxy
3	MAPI	N/A
4	WebMail	N/A



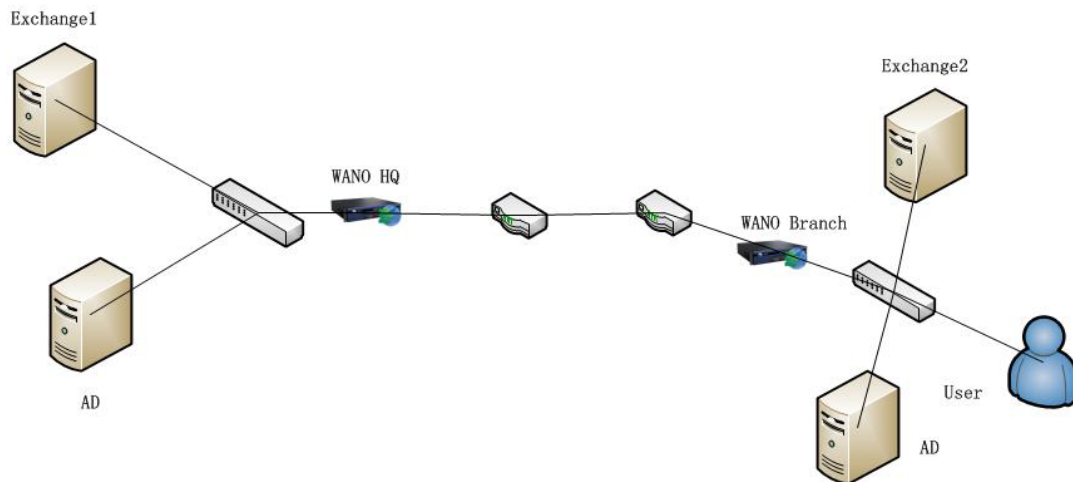
## Scenario 5 : Single Domain/ Centralized AD server/ Distributed Exchange server / Exchange server cluster



<b>Scenarios</b>	Multi site/ Single Domain/ Single AD/ Multi Exchange
<b>Version requested</b>	9.1R1/9.3 or above

Item	Email protocol enabled	WANO configuration
1	SMTP/POP3	Enable SMTP/POP3 proxy
2	SMTP/POP3 over SSL	1. Import Exchange1/3 certificate to WANO HQ, configure certificate IP as Cluster IP, configure port as 0 2.Import Exchange2 certificate to WANO Branch, Certificate IP set Exchange2 IP, port set 0 3. Enable SMTP/POP3 proxy
3	MAPI	N/A
4	WebMail	N/A

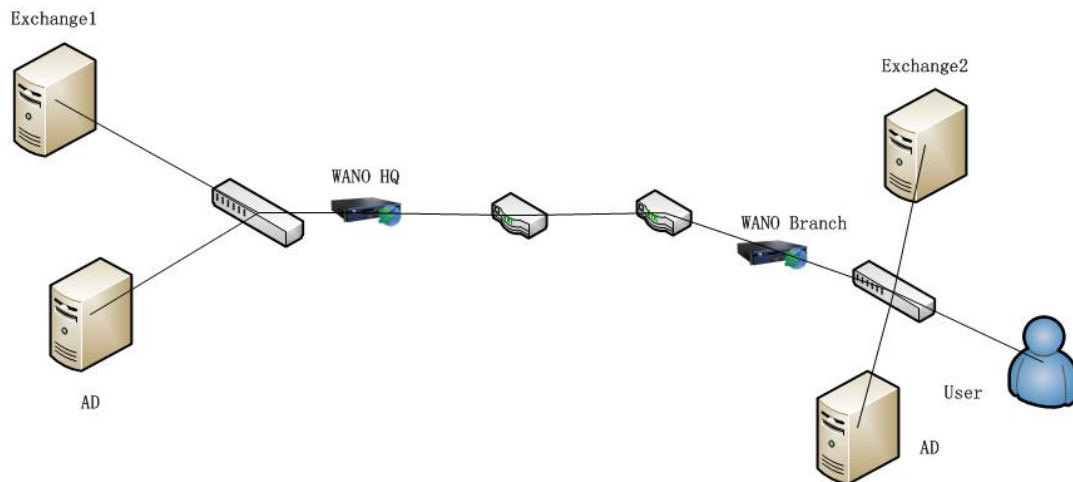
## Scenario 6 : Single Domain/ Distributed AD server/ Distributed Exchange server/ Single Exchange



<b>Scenarios</b>	Multi site/ Single Domain/ Multi AD/ Multi Exchange
<b>Version requested</b>	9.1R1 or above

Item	Email protocol enabled	WANO configuration
1	SMTP/POP3	Enable SMTP/POP3 proxy
2	SMTP/POP3 over SSL	1. Import Exchange1 certificate to WANO HQ, configure certificate IP as Exchange1 IP, configure port as 0 2. Import Exchange2 certificate to WANO Branch, configure certificate IP as Exchange2 IP, configure port as 0 3. Enable SMTP/POP3 proxy
3	MAPI	N/A
4	WebMail	N/A

## Scenario 7 : Multi Domain/ Centralized AD server/ Distributed Exchange server/Exchange server cluster



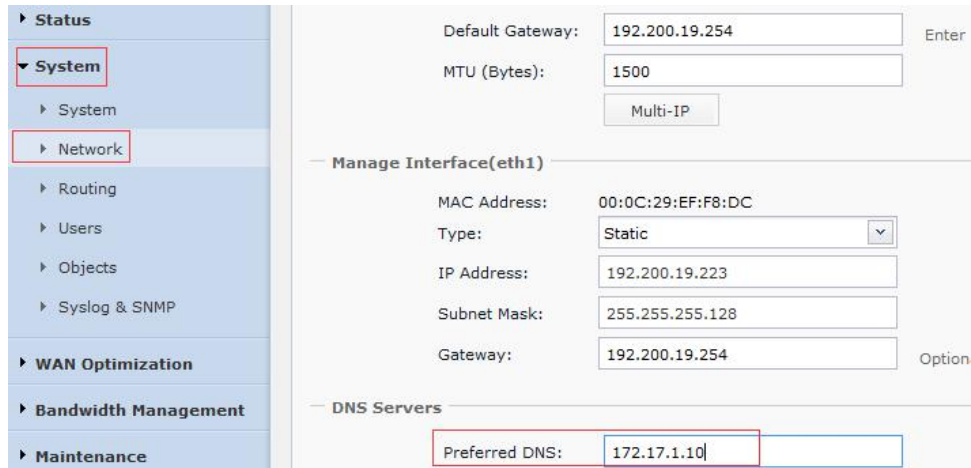
<b>Scenarios</b>	Multi site/ Multi Domain/ Single AD/ Multi Exchange
<b>Version requested</b>	9.1R1 or above

Item	Email protocol enabled	WANO configuration
1	SMTP/POP3	Enable SMTP/POP3 proxy
2	SMTP/POP3 over SSL	1. Import Exchange1 certificate to WANO HQ, configure certificate IP as Exchange1 IP, configure port as 0 2. Import Exchange2 certificate to WANO Branch, configure certificate IP as Exchange2 IP, configure port as 0 2. Enable SMTP/POP3 proxy
3	MAPI	N/A
4	WebMail	N/A

## 3. WANO exchange configuration

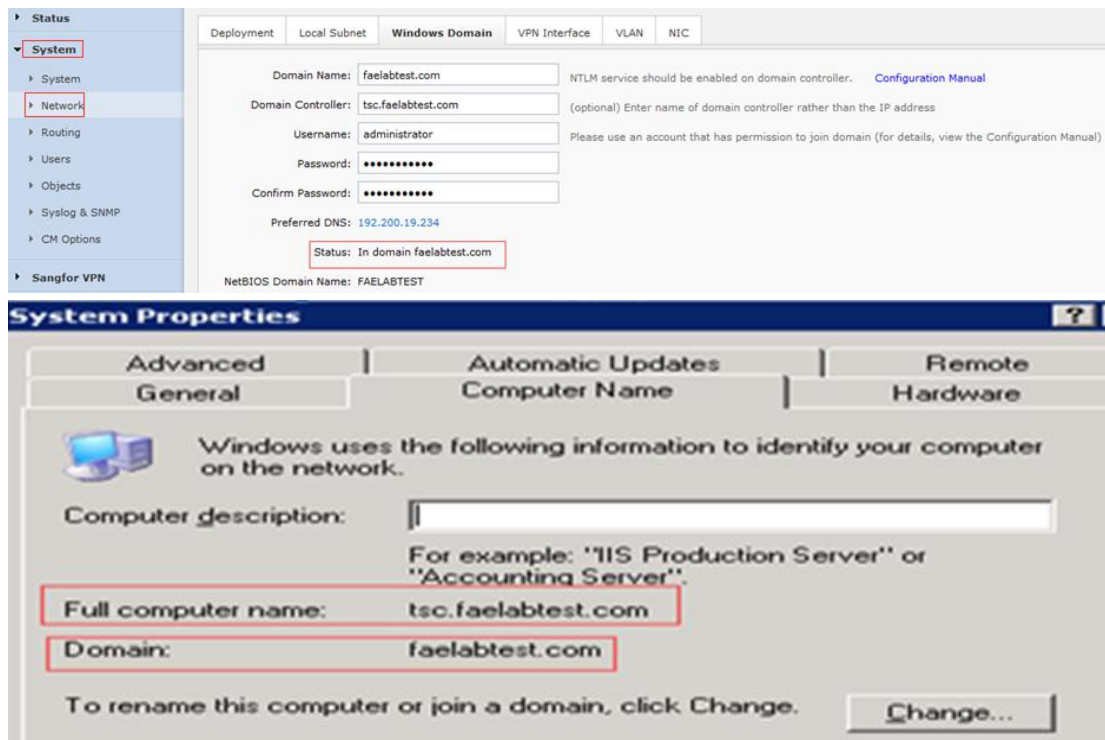
### 3.1 How to join domain

1. WANO Preferred DNS configure intranet DNS/AD IP.



The screenshot shows the WANO configuration interface. On the left is a sidebar with a tree view containing: Status, System (selected), Network (selected), Routing, Users, Objects, Syslog & SNMP, WAN Optimization, Bandwidth Management, and Maintenance. The main area is titled 'Manage Interface(eth1)'. It contains fields for: Default Gateway (192.200.19.254), MTU (Bytes) (1500), Multi-IP (button), MAC Address (00:0C:29:EF:F8:DC), Type (Static), IP Address (192.200.19.223), Subnet Mask (255.255.255.128), and Gateway (192.200.19.254). Below this is a 'DNS Servers' section with a 'Preferred DNS' field set to 172.17.1.10.

2. Better use administrator account join domain



The screenshot shows the Windows 'System Properties' dialog box, 'Computer Name' tab. It displays configuration for joining a Windows Domain. Fields include: Domain Name (faelabtest.com), Domain Controller (tsc.faelabtest.com), Username (administrator), Password (masked), and Confirm Password (masked). Preferred DNS is 192.200.19.234. The status is 'In domain faelabtest.com'. Below this is a section for 'Computer description' with fields for 'Full computer name' (tsc.faelabtest.com) and 'Domain' (faelabtest.com). A 'Change...' button is at the bottom right.

### 3.2 How to use domain user delegate ExchangeMDB service

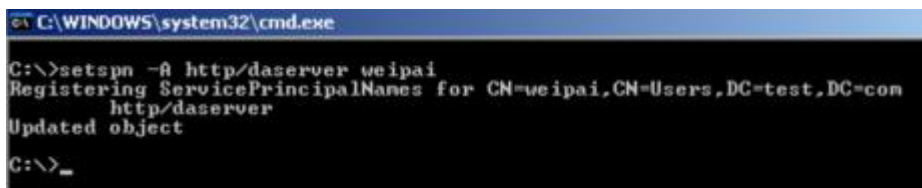
Configuration refer to:

[https://WANO\\_IP/html/wanacc/help/us\\_es/Windows\\_Domain\\_Authenticatin\\_Configuration\\_Guide.htm](https://WANO_IP/html/wanacc/help/us_es/Windows_Domain_Authenticatin_Configuration_Guide.htm)

A. Add a user in domain

B. Install setspn on Windows. Insert the Windows 2003 installation CD into the computer. Open the -SUPPORT—TOOLS and execute Suptools.MSI. To check whether setspn is installed successfully, open cmd and execute setspn. This step is not needed for Windows 2008, for setspn is already installed.

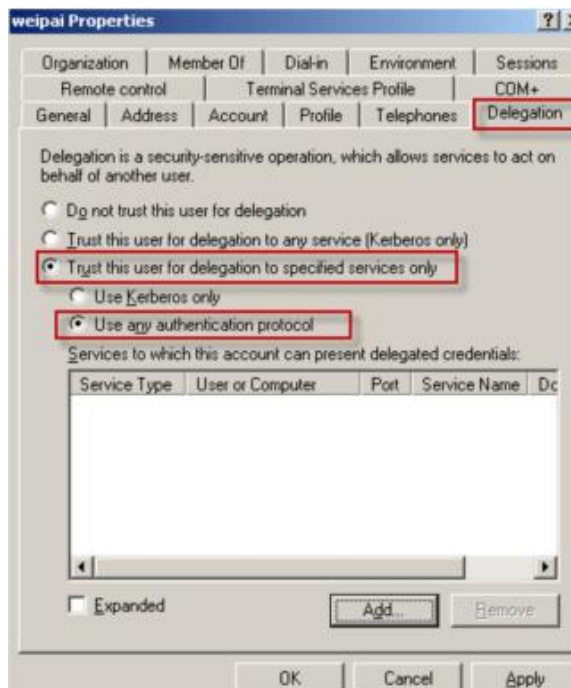
C. Create SPN (Service Principal Name). Open cmd and type the command: setspn -A http/daserver weipai, among which, weipai is the user account created on the above step.



```
C:\WINDOWS\system32\cmd.exe
C:\>setspn -A http/daserver weipai
Registering ServicePrincipalNames for CN=weipai,CN=Users,DC=test,DC=com
http/daserver
Updated object
C:\>
```

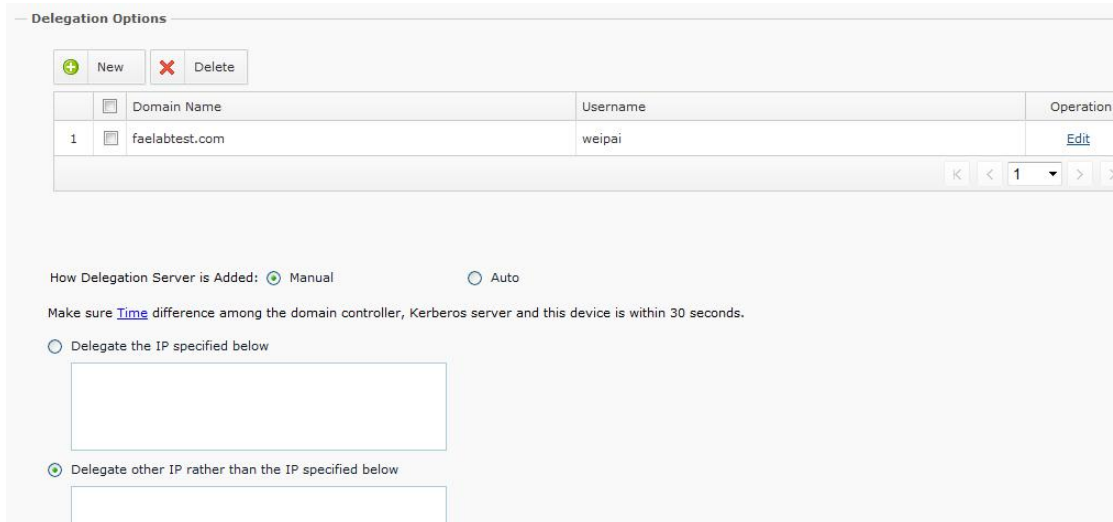
D. Grant user rights to delegate on domain controller.

1. In Windows, choose Start > Administrative Tools > Active Directory Users and computers to open Active Directory Users and Computers.
2. Right-click on the user account weipai and select Properties > Delegation > Trust this user for delegation to specified services only > User any authentication protocol, as shown in the screenshot below. If the option Use Kerberos only is selected, decryption will fail.



3. Click Add > Users or Computers, and enter the computer name of Exchange or CIFS server.
4. Select CIFS/ExchangeMDB.
- E. Configuring Delegation Options on WOC, Navigate to System > Network > Deployment >

Windows Domain. Under the Delegation Options section, click the New button and configure the following contents:



Delegation Options

+ New    ✕ Delete

	Domain Name	Username	Operation
1	faelabtest.com	weipai	<a href="#">Edit</a>

How Delegation Server is Added: ☒ Manual    ☐ Auto

Make sure [Time](#) difference among the domain controller, Kerberos server and this device is within 30 seconds.

☐ Delegate the IP specified below

☒ Delegate other IP rather than the IP specified below

\*In this part, WANO system date, time zone must the same with AD, time can't differ above 30s

### 3.3 How to export certificate from server and import it to WANO

Before accessing Exchange server by using Outlook that is configured Outlook Anywhere (RPC over HTTPS), import the IIS SSL certificate onto the server-end WOC. For how to export certificate from Exchange server, refer to the document IIS SSL Certificate Export Guide.

IIS SSL Certificate Export Guide refer to:

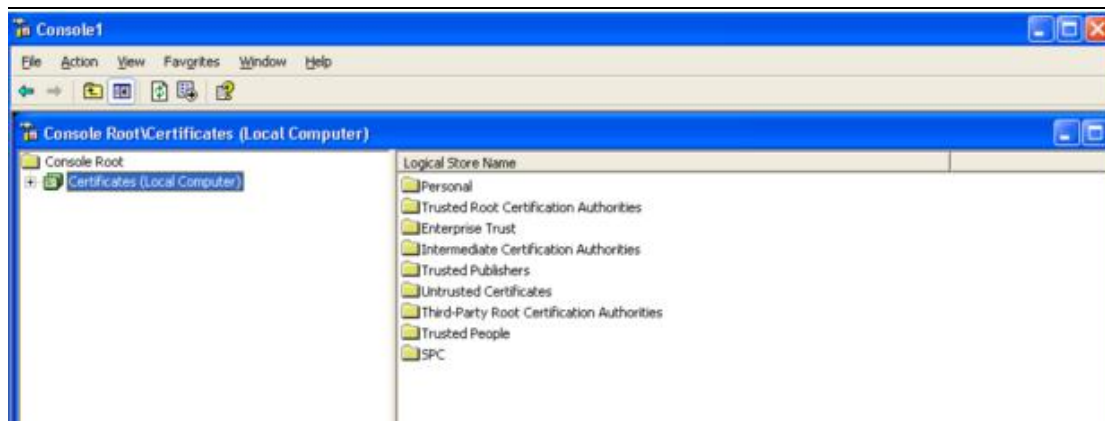
[https://WANO\\_IP/html/wanacc/help/us\\_es/IIS\\_SSL\\_Certificate\\_Export\\_Guide.html](https://WANO_IP/html/wanacc/help/us_es/IIS_SSL_Certificate_Export_Guide.html)



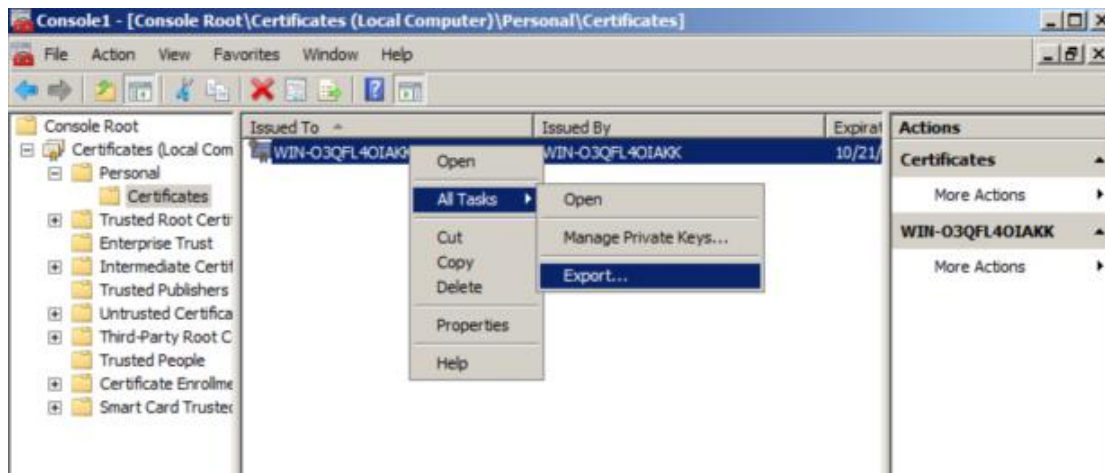
A. On Exchange server, click Start > Run and enter mmc.exe into the Open field to open a MMC window, as shown in the following figure:



B. Click File > Add/Remove Snap-In > Add and select the certificate and click Add; select a user account and click Next; select Local Computer and click Finish and Close.



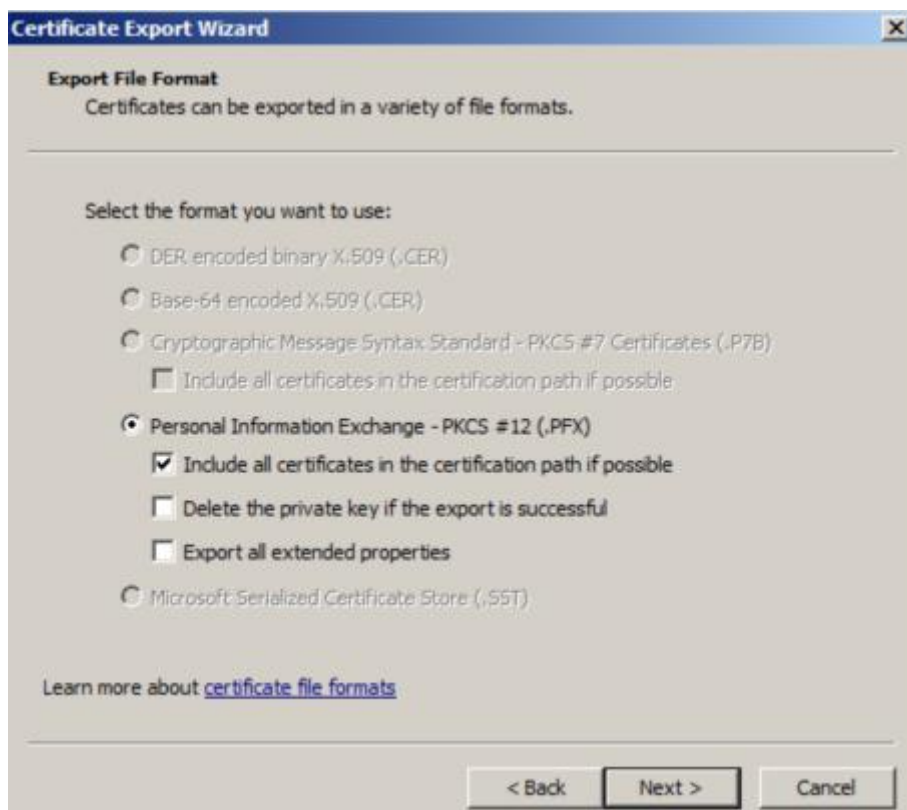
C. Click Console Root/Certificates (Local Computer) > Personal > Certificate to unfold the server certificate. Please note that the Issued By column shows the full machine name of the Exchange server and Certificate Template column shows Web server. Right-click on the certificate and select All Tasks and Export... to start the Certificate Export Wizard.



D. Select the option Yes, export the private key and Click Next.



E. Select Personal Information Exchange –PKCS #12(.PFX) and Include all certificate in the certification path if possible, and select Next.

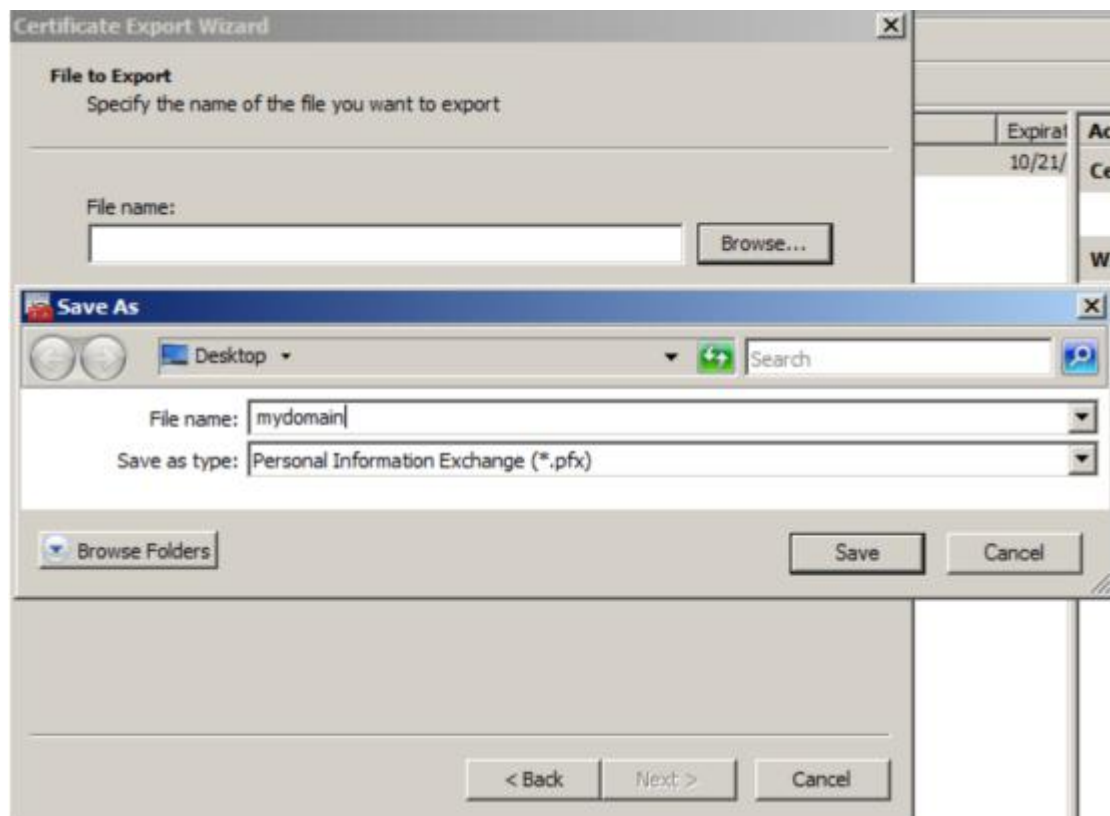


F. Set password and click Next. Please remember the password, for it is required when this certificate is imported to server-end WOC.

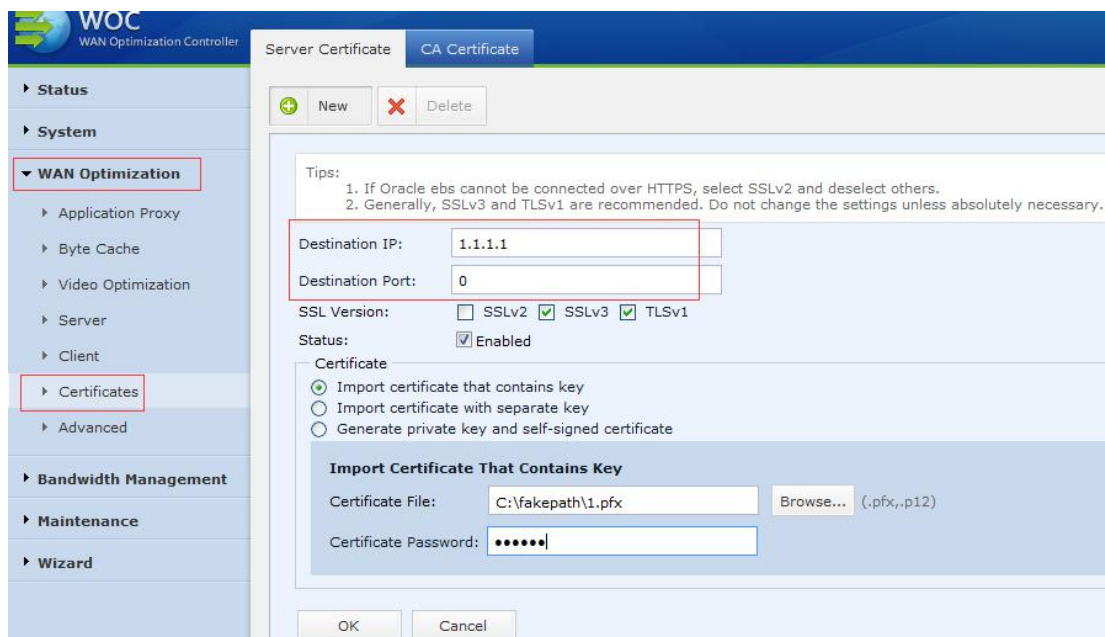




G. Select a path to save the PFX file and click Next and Finish.



H. Log in to Web administrator console of the server-end WOC and navigate to WAN Optimization > Certificates > Server Certificate. Enter the IP address and HTTPS port of the Exchange server, select the option Importcertificate that contains key and import the pfx certificate file saved in the above step. Enter the password and click OK.



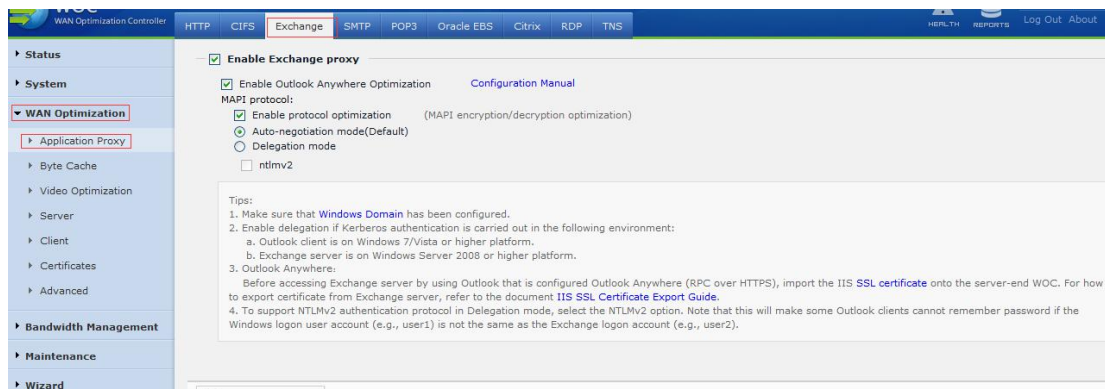
The screenshot shows the 'Server Certificate' configuration page in the SANGFOR WOC interface. The left sidebar has 'WAN Optimization' expanded, with 'Certificates' selected. The main area has tabs for 'Server Certificate' and 'CA Certificate'. Below the tabs are 'New' and 'Delete' buttons. A 'Tips' section contains two points about Oracle EBS and SSL/TLS settings. The 'Destination IP' is set to '1.1.1.1' and 'Destination Port' is '0'. 'SSL Version' has checkboxes for SSLv2, SSLv3 (checked), and TLSv1 (checked). 'Status' is set to 'Enabled'. Under 'Certificate', three options are listed: 'Import certificate that contains key' (selected), 'Import certificate with separate key', and 'Generate private key and self-signed certificate'. The 'Import Certificate That Contains Key' section has a 'Certificate File' field with 'C:\fakepath\1.pfx' and a 'Browse...' button, and a 'Certificate Password' field with masked characters. 'OK' and 'Cancel' buttons are at the bottom.

\* Port 0 mean all port, if you can confirm the port ,you can specify.

### 3.4 How to configure Exchange proxy

Exchange proxy use accelerate from outlook to exchange server.

This Proxy used in Scenario 1/2, configuration refer to 3.1.1/3.1.2 4.1/4.2/4.3

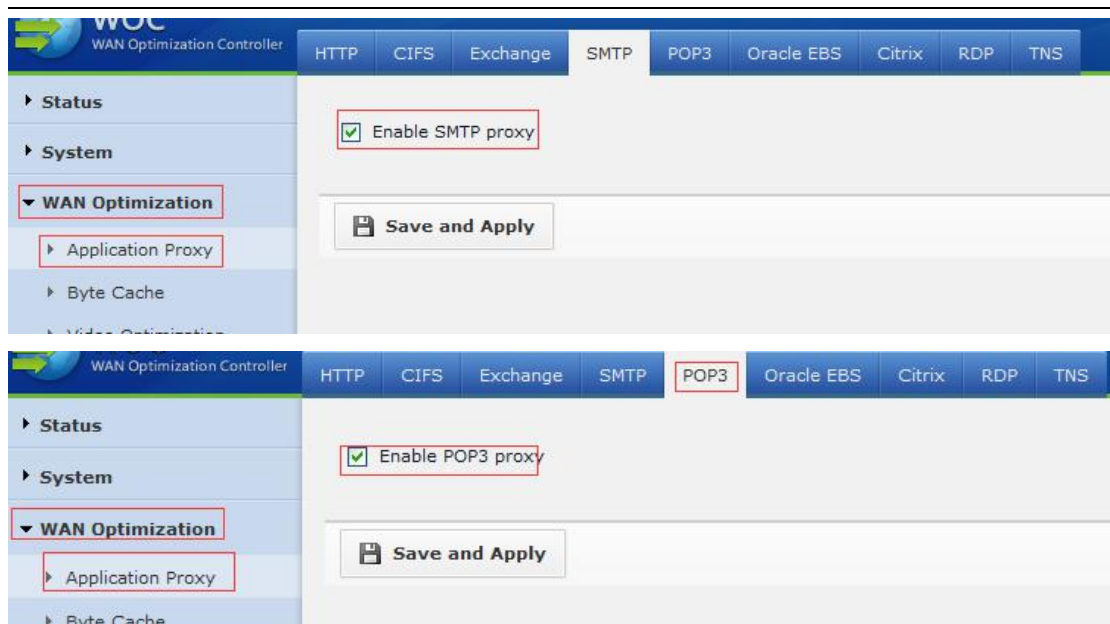


The screenshot shows the 'Exchange' configuration page in the SANGFOR WOC interface. The left sidebar has 'WAN Optimization' expanded, with 'Application Proxy' selected. The main area has tabs for 'HTTP', 'CIFS', 'Exchange', 'SMTP', 'POP3', 'Oracle EBS', 'Citrix', 'RDP', and 'TNS'. The 'Exchange' tab is active, showing 'Enable Exchange proxy' checked. Below this are 'Enable Outlook Anywhere Optimization' and 'MAPI protocol' options. 'Enable protocol optimization' is checked, with 'Auto-negotiation mode(Default)' selected. 'Delegation mode' and 'ntlmv2' are also visible. A 'Tips' section contains four points about Windows Domain, Kerberos authentication, Outlook Anywhere, and NTLMv2. A 'Configuration Manual' link is present. 'OK' and 'Cancel' buttons are at the bottom.

\* Only Win XP and 2003 server can use auto-negotiation mode, other all use Delegation mode.  
Win7 and above WIN7 client default authentication is NTLMv2

### 3.5 How to configure SMTP/POP3 Proxy

This Proxy may used in all scenarios



The image displays two screenshots of the Sangfor WAN Optimization Controller (WOC) web interface. Both screenshots show the left-hand navigation menu with 'WAN Optimization' expanded, and 'Application Proxy' selected. The top screenshot shows the 'SMTP' tab in the top navigation bar, with the 'Enable SMTP proxy' checkbox checked. The bottom screenshot shows the 'POP3' tab in the top navigation bar, with the 'Enable POP3 proxy' checkbox checked. Both screenshots include a 'Save and Apply' button at the bottom of the configuration area.

**Top Screenshot (SMTP Tab):**

- Navigation: HTTP, CIFS, Exchange, **SMTP**, POP3, Oracle EBS, Citrix, RDP, TNS
- Left Menu: Status, System, **WAN Optimization** (expanded), Application Proxy (selected), Byte Cache, Video Optimization
- Configuration: ☒ Enable SMTP proxy
- Action: **Save and Apply**

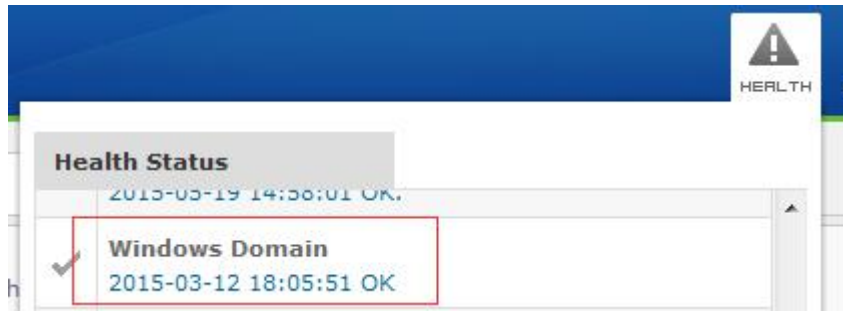
**Bottom Screenshot (POP3 Tab):**

- Navigation: HTTP, CIFS, Exchange, SMTP, **POP3**, Oracle EBS, Citrix, RDP, TNS
- Left Menu: Status, System, **WAN Optimization** (expanded), Application Proxy (selected), Byte Cache, Video Optimization
- Configuration: ☒ Enable POP3 proxy
- Action: **Save and Apply**

## 4. Troubleshooting

### 4.1. Join domain failed.

1. Make sure preferred DNS is domain server IP, and ping domain controller in the webconsole or pshell, whether it can resolve the correct IP and ping success.
2. You can check health status, WANO will remind you.

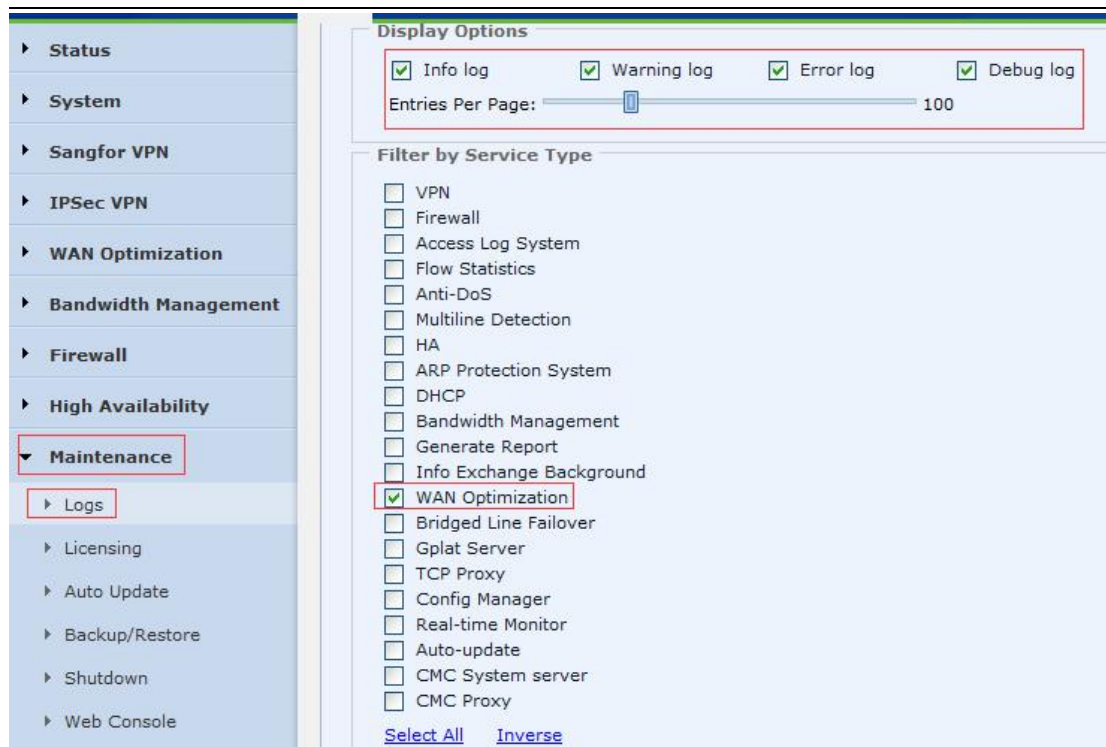


### 4.2. Delegation failed.

1. server 2003 need install setspan,  
*We need to run command in cmd "setspn -A http/daserver delegation\_user" and then we can see delegation tab in user property.*
2. WANO need ExchangeMDB service
3. Check health status



### 4.3. Check WAN Optimization logs

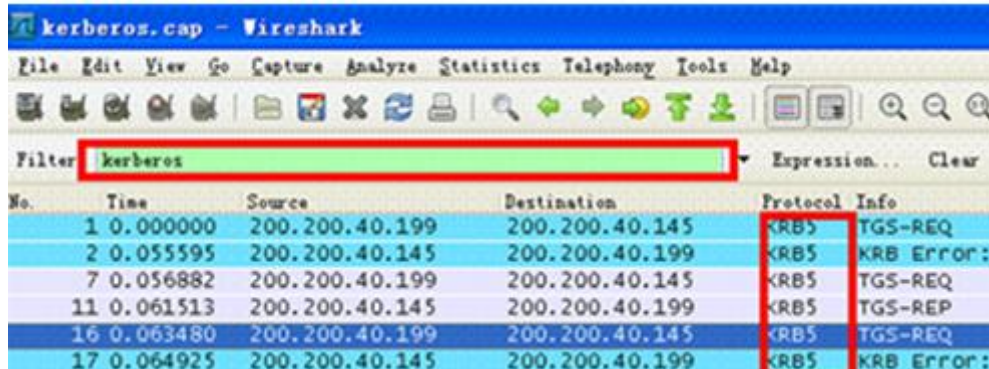


## Related Logs

Logs	Description
Please enable NTLMv2 delegation	NTLMv2 needs to be enabled on server-side WOC
Please enable client's ntlm authentication	NTLM is not enabled on client PC
Please configure delegation user	Delegation user needs to be configured (see the section Adding Delegation User Account on WOC)
Please check delegation config	Configuration is incorrect (see the sections <b>Creating Delegation User Account on DC</b> or <b>Configuring Delegation Options on WOC</b> )
Please check time between WOC and KDC	Time sync between WOC and DC is required (see the section <b>Configuring System Time on WOC and Domain Controller</b> )
Please join WOC to the domain	WOC needs to be joined to the domain
Use local user or other domain user, check domain config	User is using local user account or not using acceleration account access the Exchange or CIFS server.
Please check delegation user's account and password	Username or password is incorrect (see the section Adding Delegation User Account on WOC)

#### 4.4. Capture packets from client to Exchange server, confirm the authentication.

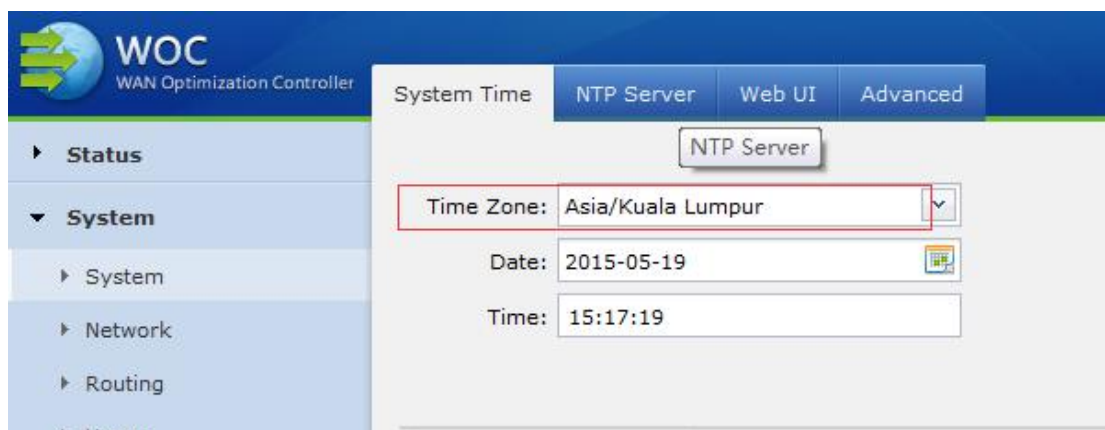
Such as following packet, it use the kerberos authentication, so we need to use delegation mode and not chose NTLMv2



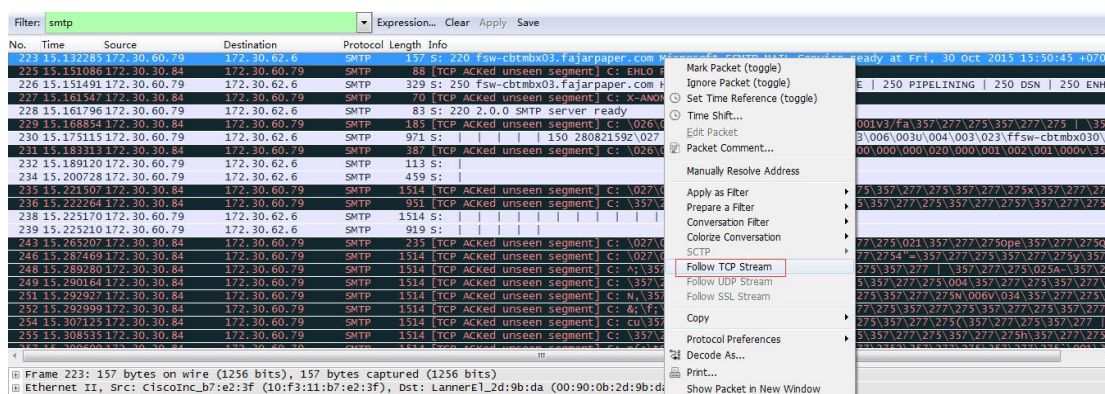
Wireshark capture showing Kerberos authentication packets. The filter is set to 'kerberos'. The packets are as follows:

No.	Time	Source	Destination	Protocol	Info
1	0.000000	200.200.40.199	200.200.40.145	KRB5	TGS-REQ
2	0.055595	200.200.40.145	200.200.40.199	KRB5	KRB Error:
7	0.056882	200.200.40.199	200.200.40.145	KRB5	TGS-REQ
11	0.061513	200.200.40.145	200.200.40.199	KRB5	TGS-REP
16	0.063480	200.200.40.199	200.200.40.145	KRB5	TGS-REQ
17	0.064925	200.200.40.145	200.200.40.199	KRB5	KRB Error:

#### 4.5. Keep WANO time zone and time the same with Domain server, or use NTP server to sync time.



#### 4.6. Capture between Exchange ,confirm the SMTP/POP3 traffic whether over SSL



Wireshark capture showing SMTP traffic. The filter is set to 'smtp'. The packets are as follows:

No.	Time	Source	Destination	Protocol	Length	Info
223	15.132285	172.30.60.79	172.30.62.6	SMTP	157	S: 220 fsw-cbtmbx03.fajarpaper.com
225	15.151086	172.30.60.79	172.30.62.6	SMTP	88	[TCP ACKED UNSEEN SEGMENT] C: EHLO
226	15.151491	172.30.60.79	172.30.62.6	SMTP	329	S: 250 fsw-cbtmbx03.fajarpaper.com
227	15.161842	172.30.60.79	172.30.62.6	SMTP	70	[TCP ACKED UNSEEN SEGMENT] C: STARTTLS
228	15.161796	172.30.60.79	172.30.62.6	SMTP	83	S: 220 2.0.0 SMTP server ready
229	15.168854	172.30.60.79	172.30.62.6	SMTP	185	[TCP ACKED UNSEEN SEGMENT] C: 02610
230	15.175115	172.30.60.79	172.30.62.6	SMTP	971	S: 150 280821592027
231	15.183313	172.30.60.79	172.30.62.6	SMTP	387	[TCP ACKED UNSEEN SEGMENT] C: 02610
232	15.189120	172.30.60.79	172.30.62.6	SMTP	113	S: 113
234	15.200728	172.30.60.79	172.30.62.6	SMTP	459	S: 113
235	15.221507	172.30.60.79	172.30.62.6	SMTP	1514	[TCP ACKED UNSEEN SEGMENT] C: 02710
236	15.222264	172.30.60.79	172.30.62.6	SMTP	951	[TCP ACKED UNSEEN SEGMENT] C: 02710
238	15.225170	172.30.60.79	172.30.62.6	SMTP	1514	S: 113
239	15.225210	172.30.60.79	172.30.62.6	SMTP	919	S: 113
243	15.265207	172.30.60.79	172.30.62.6	SMTP	235	[TCP ACKED UNSEEN SEGMENT] C: 02710
246	15.287469	172.30.60.79	172.30.62.6	SMTP	1514	[TCP ACKED UNSEEN SEGMENT] C: 02710
248	15.289280	172.30.60.79	172.30.62.6	SMTP	1514	[TCP ACKED UNSEEN SEGMENT] C: 02710
249	15.290164	172.30.60.79	172.30.62.6	SMTP	1514	[TCP ACKED UNSEEN SEGMENT] C: 02710
251	15.292927	172.30.60.79	172.30.62.6	SMTP	1514	[TCP ACKED UNSEEN SEGMENT] C: 02710
252	15.292999	172.30.60.79	172.30.62.6	SMTP	1514	[TCP ACKED UNSEEN SEGMENT] C: 02710
254	15.307125	172.30.60.79	172.30.62.6	SMTP	1514	[TCP ACKED UNSEEN SEGMENT] C: 02710
255	15.308335	172.30.60.79	172.30.62.6	SMTP	1514	[TCP ACKED UNSEEN SEGMENT] C: 02710



Filter: tcp.stream eq 24 Expression... Clear Apply Save

No.	Time	Source	Destination	Protocol	Length	Info
221	15.131369	172.30.60.79	172.30.62.6	TCP	66	25->25340 [SYN, ACK, ECN] Seq=0 Ack=1 win=8192 Len=0 MSS=1460 WS=256 SACK_PERM=1
222	15.132284	172.30.60.79	172.30.62.6	SMTP	157	S: 220 fsw-cbtmbx03.fajarpaper.com
226	15.151491	172.30.60.79	172.30.62.6	SMTP	329	S: 250 fsw-cbtmbx03.fajarpaper.com
228	15.161796	172.30.60.79	172.30.62.6	SMTP	83	S: 220 2.0.0 SMTP server ready
230	15.175115	172.30.60.79	172.30.62.6	SMTP	971	S:         150 28082159Z\02\
232	15.189120	172.30.60.79	172.30.62.6	SMTP	113	S:
234	15.200728	172.30.60.79	172.30.62.6	SMTP	459	S:
237	15.222437	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=1789 Ack=2941 Win=131328 Len=0
238	15.225170	172.30.60.79	172.30.62.6	SMTP	1514	S:
239	15.225210	172.30.60.79	172.30.62.6	SMTP	919	S:
242	15.244193	172.30.60.79	172.30.62.6	TCP	123	[TCP segment of a reassembled PDU]
244	15.269264	172.30.60.79	172.30.62.6	TCP	139	[TCP segment of a reassembled PDU]
247	15.287635	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=4268 Ack=4736 Win=131328 Len=0
250	15.290529	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=4268 Ack=7656 Win=131328 Len=0
253	15.293150	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=4268 Ack=10576 Win=131328 Len=0
256	15.308710	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=4268 Ack=13496 Win=131328 Len=0
259	15.311019	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=4268 Ack=16416 Win=131328 Len=0
262	15.314798	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=4268 Ack=19336 Win=131328 Len=0
266	15.318703	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=4268 Ack=22256 Win=131328 Len=0
268	15.319822	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=4268 Ack=25176 Win=131328 Len=0
271	15.322746	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=4268 Ack=28096 Win=131328 Len=0
274	15.325136	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=4268 Ack=31016 Win=131328 Len=0

4 Frame 223: 157 bytes on wire (1256 bits), 157 bytes captured (1256 bits) on interface 0  
Ethernet II, Src: CiscoCnc\_b7:e2:3f (10:f3:11:b7:e2:3f), Dst: LanerE1\_2d:9b:da (00:90:0b:2d:9b:da)  
Internet Protocol version 4, Src: 172.30.60.79 (172.30.60.79), Dst: 172.30.62.6 (172.30.62.6)

Mark Packet (toggle)  
Ignore Packet (toggle)  
Set Time Reference (toggle)  
Time Shift...  
Edit Packet  
Packet Comment...  
Manually Resolve Address  
Apply as Filter  
Prepare a Filter  
Conversation Filter  
Colorize Conversation  
SCTP  
Follow TCP Stream  
Follow UDP Stream  
Follow SSL Stream  
Copy  
Protocol Preferences  
Decode As...  
Print...  
Show Packet in New Window

Wireshark: Decode As

☒ Decode ☐ Do not decode

Link Network Transport

TCP both (25[E]25340) port(s) as

Clear Show Current

Help OK Apply Close

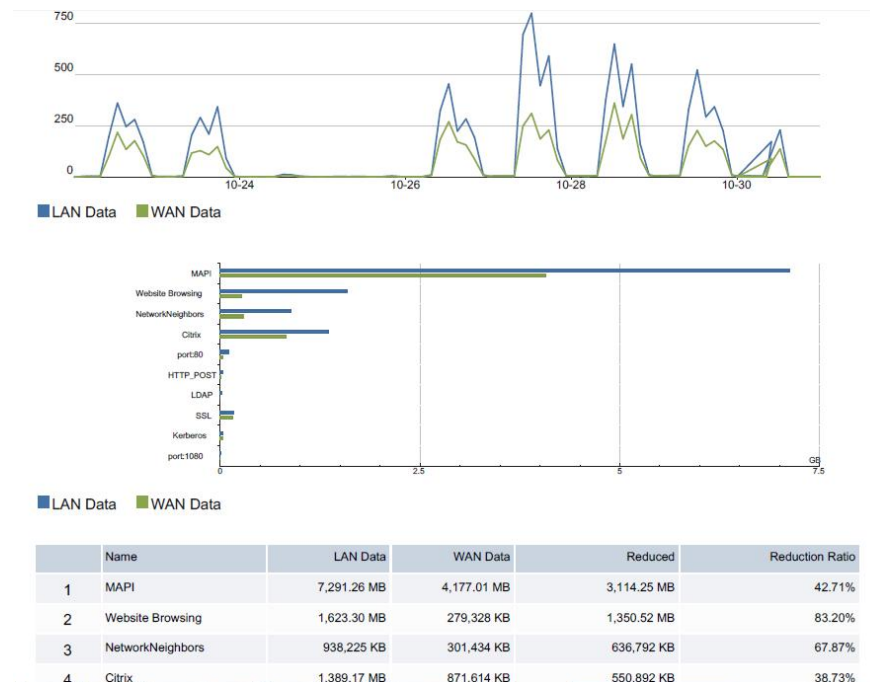
Socks  
SoulSeek  
SoupBinTCP  
SPDY  
Spice  
SRVLOC  
SSH  
SSL  
STANAG 5066 DTS

No.	Time	Source	Destination	Protocol	Length	Info
221	15.131369	172.30.60.79	172.30.62.6	TCP	66	25->25340 [SYN, ACK, ECN] Seq=0 Ack=1 Win=8192 Len=0 MSS=1460 WS=256 SACK_PERM=1
222	15.132284	172.30.60.79	172.30.62.6	TLSv1	157	Ignored unknown Record
226	15.151491	172.30.60.79	172.30.62.6	TLSv1	329	Ignored unknown Record
228	15.161796	172.30.60.79	172.30.62.6	TLSv1	83	Ignored unknown Record
230	15.175115	172.30.60.79	172.30.62.6	TLSv1	971	Server Hello, Certificate, Certificate Request, Server Hello Done
232	15.189120	172.30.60.79	172.30.62.6	TLSv1	113	Change cipher spec, Encrypted Handshake Message
234	15.200728	172.30.60.79	172.30.62.6	TLSv1	459	Application Data
237	15.222437	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=1789 Ack=2941 Win=131328 Len=0
238	15.225170	172.30.60.79	172.30.62.6	TCP	1514	[TCP segment of a reassembled PDU]
239	15.225210	172.30.60.79	172.30.62.6	TLSv1	919	Application Data
242	15.244193	172.30.60.79	172.30.62.6	TLSv1	123	Application Data
244	15.269264	172.30.60.79	172.30.62.6	TLSv1	139	Application Data
247	15.287635	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=4268 Ack=4736 Win=131328 Len=0
250	15.290529	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=4268 Ack=7656 Win=131328 Len=0
253	15.293150	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=4268 Ack=10576 Win=131328 Len=0
256	15.308710	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=4268 Ack=13496 Win=131328 Len=0
259	15.311019	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=4268 Ack=16416 Win=131328 Len=0
262	15.314798	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=4268 Ack=19336 Win=131328 Len=0
266	15.318703	172.30.60.79	172.30.62.6	TCP	54	25->25340 [ACK] Seq=4268 Ack=22256 Win=131328 Len=0

## 5. Real cases' Report

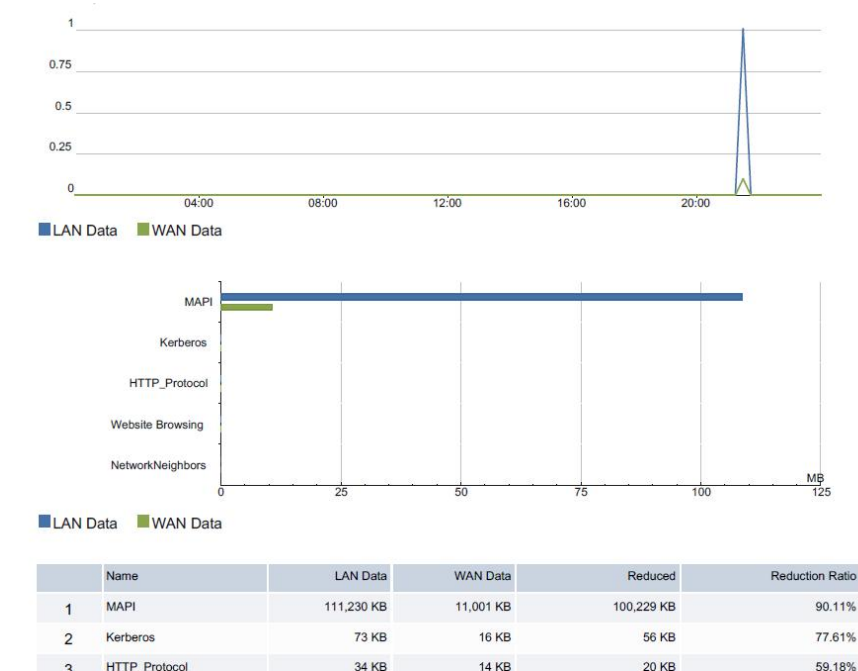
### 5.1 MAPI

Customer: ZICO LAW use scenario 2, KEMP load balance, MAPI+SSL



Customer: Sangfor Malaysia support center use scenario 1

Test Repeat send same mail to different branch user





## 5.2 SMTP/POP3

Customer: EP Polymer use scenario 1

