



SANGFOR

SANGFOR AD General Test Guide

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Deployment and Features:

Deployment Mode	Main Features
Single arm	Server load balance, SSL off load , Intelligent DNS, GSLB(Global Server Load Balance)
Gateway	Server load balance, SSL off load, Intelligent DNS, GSLB(Global Server Load Balance), Policy-based routing, DNS proxy

General Configuration Step:

Module	Item
System	<ol style="list-style-type: none">1. Change admin default password2. Add manage interface IP3. Remote maintenance4. Input license (vAD license active in HCI)
Network	<p>Single arm mode:</p> <ol style="list-style-type: none">1. WAN interface2. Source NAT3. Enable WAN Port Forwards Outgoing Traffic <p>Gateway mode:</p> <ol style="list-style-type: none">1. WAN interface2. LAN interface3. Source NAT4. Destination NAT (Optional)5. Enable WAN Port Forwards Outgoing Traffic6. DNS proxy (Optional)7. Static route8. Policy-based routing

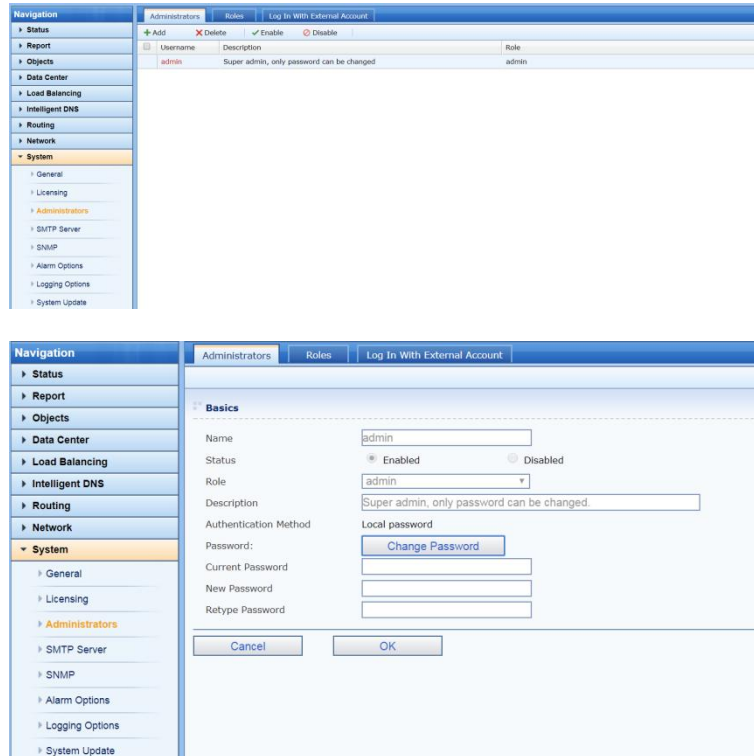


Server load balance	<ol style="list-style-type: none">1. Service (Default)2. WAN link3. Persistence (Default)4. Node monitor (Default)5. Node pools6. SSL (Optional)7. Policy (Optional)8. Virtual service
Intelligent DNS	<ol style="list-style-type: none">1. DNS server2. Local virtual IP pool3. Local DNS Mapping4. LANDS (Optional)5. Static proximity--virtual IP pool based (Optional)6. Public IP UDP 53 port DNAT to AD single arm IP from gateway (Single arm mode)7. Make domain NS records to AD DNS server Public IP from domain provider
GSLB	<ol style="list-style-type: none">1. Data center2. DNS server3. Local virtual IP pool and global virtual IP pool4. Local DNS mapping and global DNS mapping5. Local LDNS and remote site LDNS (Optional)6. Static proximity--DNS mapping based and virtual IP pool based (Optional)6. Public IP UDP 53 port DNAT to AD single arm IP from gateway (Single arm mode)7. Make domain NS records to AD DNS server Public IP from domain provider

Screenshot and Example:

System

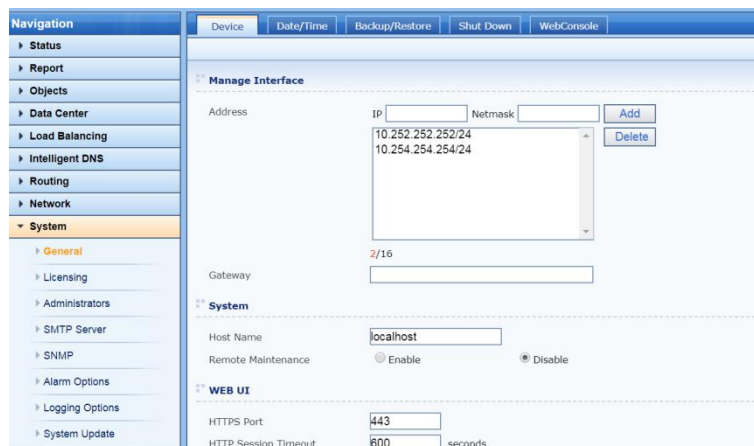
1. Change admin default password



The screenshot shows the SANGFOR web interface. On the left is a navigation menu with categories like Status, Report, Objects, Data Center, Load Balancing, Intelligent DNS, Routing, Network, and System. The 'System' category is expanded, showing sub-items like General, Licensing, Administrators, SMTP Server, SNMP, Alarm Options, Logging Options, and System Update. The 'Administrators' sub-item is selected, displaying a table of administrators. The table has columns for Username, Description, and Role. One administrator is listed: 'admin' with the description 'Super admin, only password can be changed' and role 'admin'. Above the table are buttons for '+ Add', 'X Delete', '✓ Enable', and '✗ Disable'. Below the table is a 'Change Password' dialog box. The dialog has fields for Name (admin), Status (Enabled), Role (admin), and Description (Super admin, only password can be changed). It also has a 'Local password' section with a 'Change Password' button, and fields for Current Password, New Password, and Retype Password. At the bottom are 'Cancel' and 'OK' buttons.

Username	Description	Role
admin	Super admin, only password can be changed	admin

2. Add manage interface IP



The screenshot shows the SANGFOR web interface with the 'Manage Interface' configuration page. The left navigation menu is the same as in the previous screenshot. The 'System' category is expanded, and the 'General' sub-item is selected. The 'Manage Interface' page has tabs for Device, Date/Time, Backup/Restore, Shut Down, and WebConsole. The 'Device' tab is active. The page has sections for 'Address', 'Gateway', 'System', and 'WEB UI'. The 'Address' section has fields for IP and Netmask, with a list of IP addresses: 10.252.252.252/24 and 10.254.254.254/24. There are 'Add' and 'Delete' buttons. The 'Gateway' section has a field for Gateway with the value 2/16. The 'System' section has fields for Host Name (localhost) and Remote Maintenance (Enable/Disable). The 'WEB UI' section has fields for HTTPS Port (443) and HTTP Session Timeout (600 seconds).

3. Remote maintenance

Used for login WebUI from WAN interface

Navigation

- Status
- Report
- Objects
- Data Center
- Load Balancing
- Intelligent DNS
- Routing
- Network
- System**
 - General
 - Licensing
 - Administrators
 - SMTP Server
 - SNMP
 - Alarm Options
 - Logging Options
 - System Update

Device | Date/Time | Backup/Restore | Shut Down | WebConsole

Manage Interface

Address IP Netmask

10.252.252.252/24
10.254.254.254/24

2/16

Gateway

System

Host Name

Remote Maintenance ☒ Enable ☐ Disable

WEB UI

HTTPS Port

HTTP Session Timeout seconds

4. Input license

Navigation

- Status
- Report
- Objects
- Data Center
- Load Balancing
- Intelligent DNS
- Routing
- Network
- System**
 - General
 - Licensing**
 - Administrators
 - SMTP Server
 - SNMP
 - Alarm Options
 - Logging Options
 - System Update
 - Wizard
 - High Availability

Device Basics

Gateway ID 3C1EE606

Function Modules Basic License, SSL offload, TCP one-way acceleration, HTTP caching, Intelligent DNS

Phone Service Expiration -

Hardware Warranty -

Basic License

License Status Activated

Max Links 2

SSL Offload License

License Status Activated

TCP One-Way Acceleration

License Status Activated

HTTP Contents Caching

License Status Activated

Intelligent DNS License

License Status Activated

Software Upgrade

Network

1. WAN interface

Navigation

- Status
- Report
- Objects
- Data Center
- Load Balancing
- Intelligent DNS
- Routing
- Network**
 - Interface
 - Link Monitor
 - Source NAT
 - Destination NAT
 - DNS Proxy
 - Security
 - ACL

Physical Interface

Interface Status

MANAGE eth1 eth2 eth3

Name	Interface	IP Address	Outbound	Inbound	Type
------	-----------	------------	----------	---------	------

Navigation

- Status
- Report
- Objects
- Data Center
- Load Balancing
- Intelligent DNS
- Routing
- ▼ **Network**
 - **Interface**
 - Link Monitor
 - Source NAT
 - Destination NAT
 - DNS Proxy
 - Security
 - ACL

Physical Interface

Interface Type

- ◻ LAN
- ☒ WAN

Cancel
Next

Public IP used for single arm mode

Basics

Name
WAN1
Interface
eth1
Type
WAN (IPv4)
Status
☒ Enabled
☐ Disabled

Addresses

Interface IP

Start IP
End IP
Netmask
1.1.1.2/24
Add
Delete

1/512 entries
Gateway
1.1.1.1
Public IP

Start IP
End IP
Add
Delete

Bandwidth

Outbound
100
Mbps
Usage Threshold
80
%
Inbound
100
Mbps
Usage Threshold
80
%

Health Probe

Status
☒ Enabled
☐ Disabled
Gateway ARP Spoofing Detection
☐ Enabled
☒ Disabled
Active Monitor
ping
Destination Host
ping/8.8.8.8
Add
Delete

Cable Plug Status Detection
☒ Enable
☐ Disable

2. LAN interface

Navigation

- Status
- Report
- Objects
- Data Center
- Load Balancing
- Intelligent DNS
- Routing
- ▼ **Network**
 - **Interface**
 - Link Monitor
 - Source NAT
 - Destination NAT
 - DNS Proxy
 - Security
 - ACL

Physical Interface

Interface Type

- ☒ LAN
- ☐ WAN

Cancel
Next

Basics

Name: LAN
Interface: eth3
Type: LAN
Status: ☒ Enabled ☐ Disabled

Addresses

Interface IP:

Start IP: (Start IP cannot be greater than end IP. Enter start IP only for single IP)
End IP:
Netmask: 10.0.0.1/24

Add
Delete

1/512 entries

Health Check

Health Status: ☐ Enable ☒ Disable

3. Source NAT

Gateway mode : Private IP change to public IP

Single arm mode : Avoid asymmetry route

Navigation

- Status
- Report
- Objects
- Data Center
- Load Balancing
- Intelligent DNS
- Routing
- ▼ **Network**
 - Interface
 - Link Monitor
 - **Source NAT**
 - Destination NAT
 - DNS Proxy
 - Security
 - ACL

Source NAT | SNAT Address Pool

Basics

Name: SNAT1
Status: ☒ Enabled ☐ Disabled
Type: ☒ IPv4 ☐ IPv6

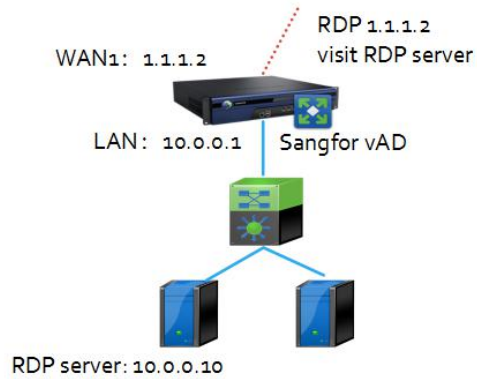
Others

Outgoing Interface: Specified Interface: WAN1
Src IP: All
Translate Src IP To: ☒ Interface IP ☐ Specified IP
Method: ☒ Source IP and destination IP hash method ☐ Source IP hash method

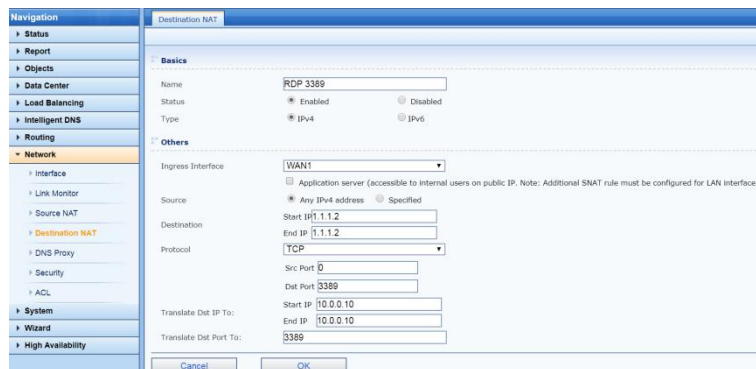
Cancel
OK

4. Destination NAT

Used for internet user access intranet server via WAN interface IP and port.

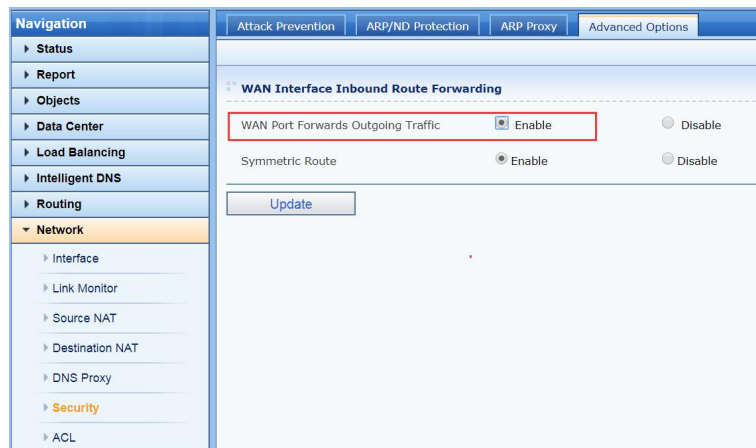


Gateway Mode Deployment

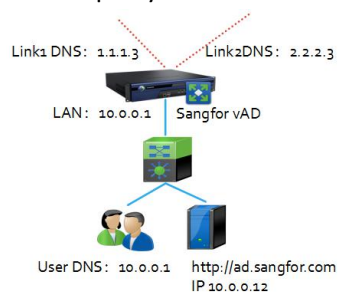


5. Enable WAN Port Forwards Outgoing Traffic

After enable this feature ,you can ping WAN interface IP and WAN interface will support traffic forward.



6. DNS proxy





SANGFOR

Navigation

- Status
- Report
- Objects
- Data Center
- Load Balancing
- Intelligent DNS
- Routing
- Network**
 - Interface
 - Link Monitor
 - Source NAT
 - Destination NAT
 - DNS Proxy**
 - Security
 - ACL

DNS Server

Interface: WAN2

DNS Servers

IP Address:

Weight:

WAN1/1.1.1.3/1

WAN2/2.2.2.3/1

Transparent DNS Proxy

Status: ☒ Enabled ☐ Disabled

IPv4 Listening Address:

Service Port:

Caching: ☐ Enable ☒ Disable

Concurrent Query: ☐ Enable ☒ Disable

Transparent DNS Proxy

Status: ☒ Enabled ☐ Disabled

IPv4 Listening Address:

Service Port:

Caching: ☐ Enable ☒ Disable

Concurrent Query: ☐ Enable ☒ Disable

LB Mode:

Query Destinations:

Internal Subnet: ☒ All ☐ Specified

Monitored Domain Names:

Scheduling Policy: ☐ Enable ☒ Disable

Link Busy Protection: ☐ Enable ☒ Disable

Intranet user visit 10.0.0.12 HTTP server via <http://ad.sangfor.com>

Navigation

- Status
- Report
- Objects
- Data Center
- Load Balancing
- Intelligent DNS
- Routing
- Network**
 - Interface
 - Link Monitor
 - Source NAT
 - Destination NAT
 - DNS Proxy**
 - Security
 - ACL

DNS Proxy | **Scheduling Policy** | **Internal DNS Records** | **HOSTS**

Interface Type

☒ A records (mapping of domain names and IP addresses)

☐ AAAA records (records specifying IPv6 addresses for specific domain names)

☐ MX records (Mail Exchange records, for locating the mail server when email is delivered)

☐ CNAME records (canonical name, enables more than one names imaging to a same computer)

☐ TXT records (description of a hostname or domain name)

Navigation

- Status
- Report
- Objects
- Data Center
- Load Balancing
- Intelligent DNS
- Routing
- Network**
 - Interface
 - Link Monitor
 - Source NAT
 - Destination NAT
 - DNS Proxy**
 - Security
 - ACL

DNS Proxy | **Scheduling Policy** | **Internal DNS Records** | **HOSTS**

Basics

Domain:

Status: ☒ Enabled ☐ Disabled

Others

A Records

IP Address:

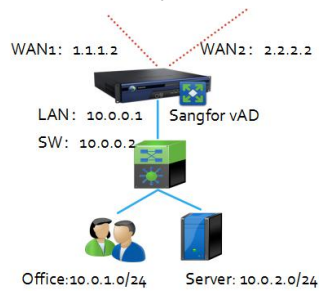
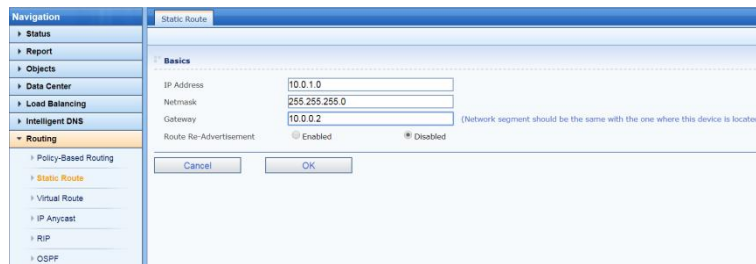
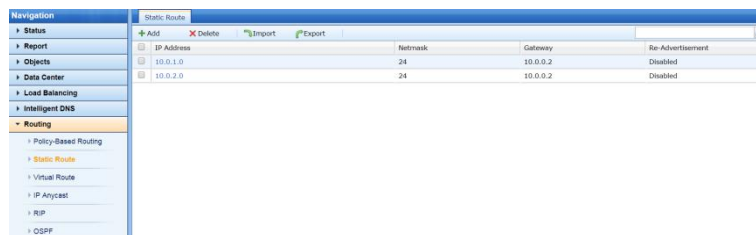
TTL: seconds

(Enter a valid IP address)

10.0.0.12/60

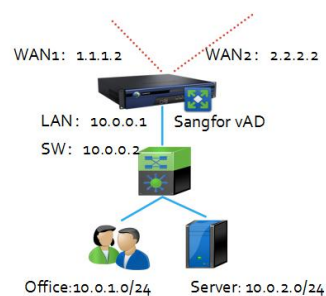
7. Static route

Used for multiple subnet intranet scenario.

IP Address	Netmask	Gateway	Re-Advertisement
10.0.1.0	24	10.0.0.2	Disabled
10.0.2.0	24	10.0.0.2	Disabled

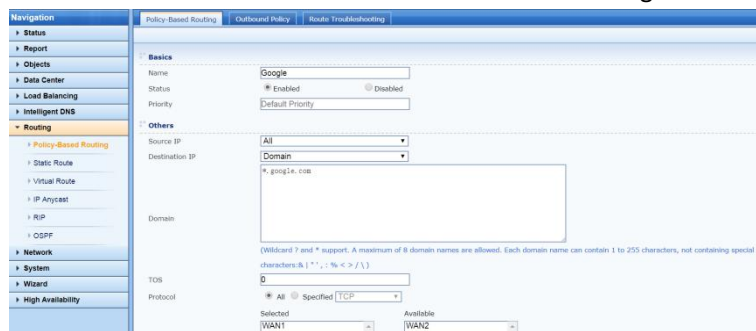
8. Policy-based routing



Customer hope all google traffic go out from WAN1

To destination subnet 3.3.3.0/24 go out from WAN2

Other traffic choose low bandwidth usage rate link go out



Navigation

Status

Report

Objects

Data Center

Load Balancing

Intelligent DNS

Routing

Policy-Based Routing

Static Route

Virtual Route

IP Anycast

RIP

OSPF

Network

System

Wizard

High Availability

Name

WAN Subnet 3

Status

Enabled

Disabled

Priority

Default Priority

Others

Source IP

All

Destination IP

Subnet

IP Address

3.3.3.0

Netmask

255.255.255.0

TOS

0

Protocol

All

Specified

TCP

Selected

WAN2

Available

WAN1

Valid Period

All day

Link LB Mode

None

Link Busy Protection

Enable

Disable

Action for Scheduling Failure

Try next one

Drop

Navigation

Status

Report

Objects

Data Center

Load Balancing

Intelligent DNS

Routing

Policy-Based Routing

Static Route

Virtual Route

IP Anycast

RIP

OSPF

Network

System

Wizard

High Availability

Basics

Name

Default

Status

Enabled

Disabled

Priority

Default Priority

Others

Source IP

All

Destination IP

All

TOS

0-255

Protocol

All

Specified

TCP

Selected

WAN1

WAN2

Available

Valid Period

All day

Link LB Mode

Bandwidth rate

Round robin

Round robin

Bandwidth rate

Weighted least traffic

Round trip time

Link Busy Protection

Disable









Action for Scheduling Failure

Drop

Cancel

OK

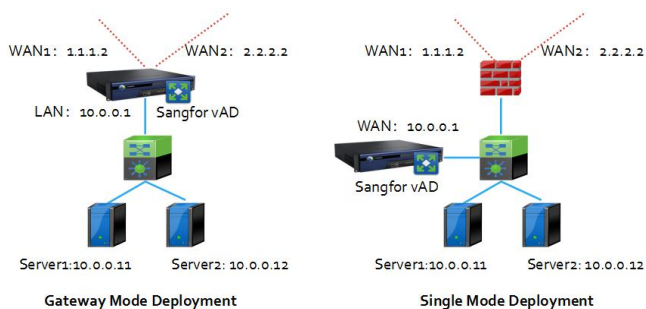
Traffic match order from top to bottom

Configuration	Policy-Based Routing							Outbound Policy	Route Troubleshooting	Export				Wizard		
➤ Status	➤ Add							✖ Delete	✔ Enable	✖ Disable	➤ Import					
➤ Report																
➤ Objects	🔍 Name							Source IP	Destination IP		Protocol	WAN Link		Valid Period	Operation	
	Google							All	*.google.com		ALL	WAN1		All day	  	
➤ Data Center	🔍 WAN Subnet 3							All	3.3.3.0/255.255.255.0		ALL	WAN2		All day	  	
➤ Load Balancing	Default							All	All		ALL	WAN1,WAN2		All day	  	
➤ Intelligent DNS																
➤ Routing																
➤ Policy-Based Routing																
➤ Static Route																
➤ Virtual Route																
➤ IP Anycast																
➤ RIP																
➤ OSPF																

Server Load Balance

Customer want to delivery HTTP service via WAN1(1.1.1.2) and WAN2(2.2.2.2)

Two HTTP server load balance



1. Service

Navigation			
► Status	Service		
► Report	+ Add - Delete		
► Objects			
► Data Center			
▼ Load Balancing			
► Service			
► WAN Link			
► Persistence			
► Node Monitor			
► Node Pools			
► SSL			
► Policy			
► Virtual Service			

Name	Type	Port
http	HTTP	80
smtp	TCP	25
pop3	TCP	110
dns	DNS	53
https	HTTPS	443
ssl	SSL	443
imap_ssl	SSL	993
smtp_ssl	SSL	465
pop3_ssl	SSL	995
radius_auth	RADIUS	1812
radius_acct	RADIUS	1813
ftp	FTP	21
mysql	MYSQL	3306

2. WAN link

Navigation	
► Status	WAN Link
► Report	
► Objects	
► Data Center	
▼ Load Balancing	
► Service	
► WAN Link	
► Persistence	
► Node Monitor	
► Node Pools	
► SSL	
► Policy	
► Virtual Service	

Basic	
Name	HTTP service (1-63 characters, not containing special characters: & * ' , : % < > / \)
IP Address	
IP Group	<div> <div>Selected</div> <div> WAN1 1.1.1.2 WAN2 2.2.2.2 </div> </div> <div> <div>Available</div> <div></div> </div>
(A maximum of 32 IP addresses are allowed)	
<input checked="" type="checkbox"/> Show the public IP in Network > Interfaces	
Cancel	OK

3. Persistence

Navigation	
► Status	Session Persistence
► Report	+ Add - Delete
► Objects	
► Data Center	
▼ Load Balancing	
► Service	
► WAN Link	
► Persistence	
► Node Monitor	
► Node Pools	
► SSL	
► Policy	
► Virtual Service	

Name	Type
sourceip	SourceIP
cookie	Cookie

4. Node monitor

Navigation	
► Status	Node Health Monitor
► Report	+ Add - Delete
► Objects	
► Data Center	
▼ Load Balancing	
► Service	
► WAN Link	
► Persistence	
► Node Monitor	
► Node Pools	
► SSL	
► Policy	
► Virtual Service	
► Intelligent DNS	
► Routing	
► Network	
► System	
► Wizard	

Name	Type
ping	ICMP
ping6	ICMPV6
connect_tcp	CONNECT(TCP)
connect_udp	CONNECT(UDP)
http	HTTP
ftp	FTP
pop3	CONNECT(TCP)
smtp	CONNECT(TCP)
imap	CONNECT(TCP)
telnet	CONNECT(TCP)
ssh	CONNECT(TCP)
snmp	SNMP
dns	DNS
radius_auth	Radius
radius_acct	Radius
oracle	ORACLE
mysql	MYSQL
https	HTTPS

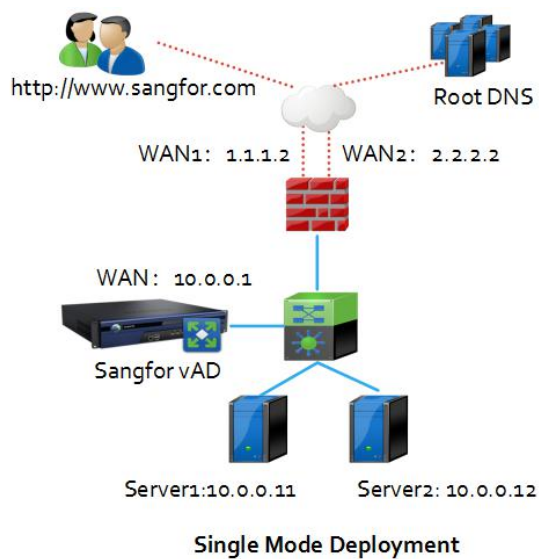
Name	<input type="text" value="HTTP service"/>	
Status	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled	
Encryption Options		
LB Type	Layer 7	
Service	<input type="text" value="http"/>	
WAN Link	<input type="text" value="HTTP service"/>	
Default Node Pool	<input type="text" value="HTTP service pool"/>	
Scheduled Request	<input type="radio"/> The first request <input checked="" type="radio"/> Every request	
Scheduling Policy	<input type="text" value="-- Disabled --"/>	[Select More]
Network Policy		
TCP Policy	<input type="text" value="Layer 7 Virtual Service TCP Policy"/>	
QoS Policy	<input type="text" value="-- Disabled --"/>	
SNAT Address Pool	<input type="text" value="-- Disabled --"/>	
Application Policy		
Acceleration Policy	<input type="text" value="-- Select --"/>	
HTTP Protection Policy	<input type="text" value="HTTP Protection Policy"/>	
SSL Encryption Policy	<input type="text" value="-- Disabled --"/>	[Select More]
iPro	<input type="text" value="-- Disabled --"/>	[Select More]

Service/WAN link/Node pool is necessary, other policy depend on customer's requirements.
 SNAT Address Pool is necessary to avoid asymmetry route, when AD deploy as single arm mode.

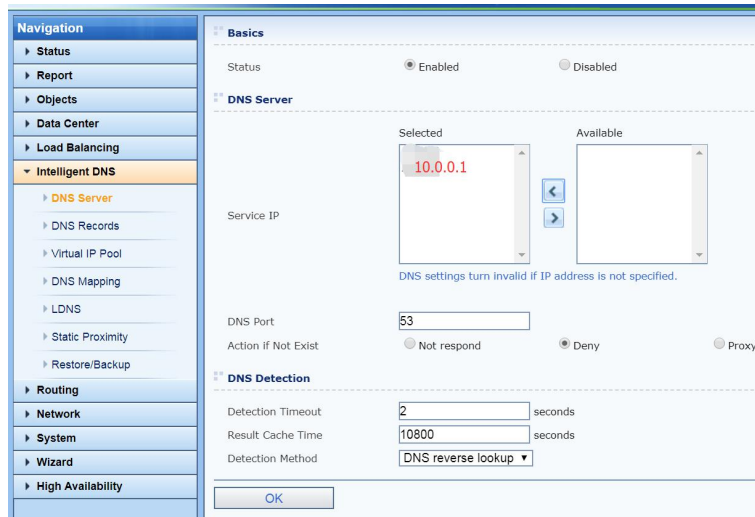
Intelligent DNS

Internet user visit Sangfor portal via <http://www.sangfor.com>, the datacenter has two link for load balance, we hope one link down, user can visit the portal from another link.

Malaysia user access portal from WAN1 firstly.

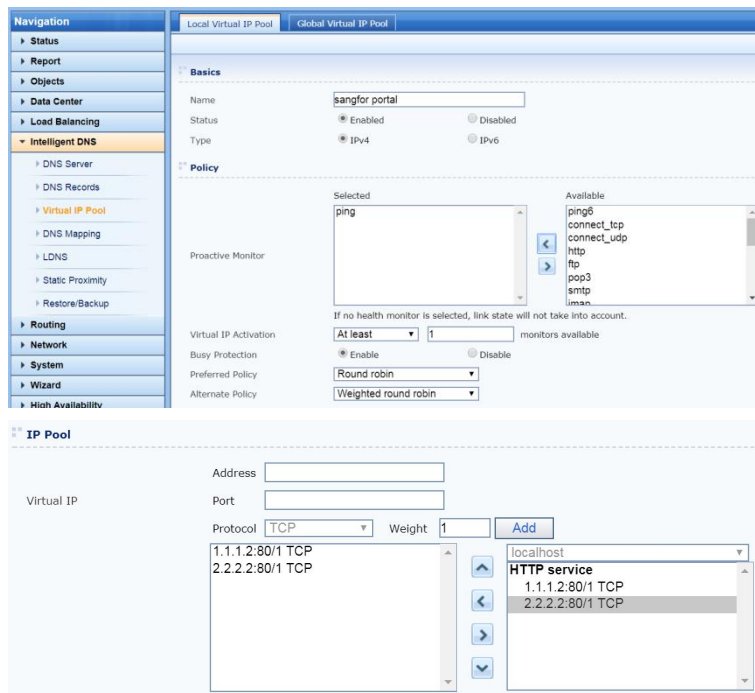


1. DNS server



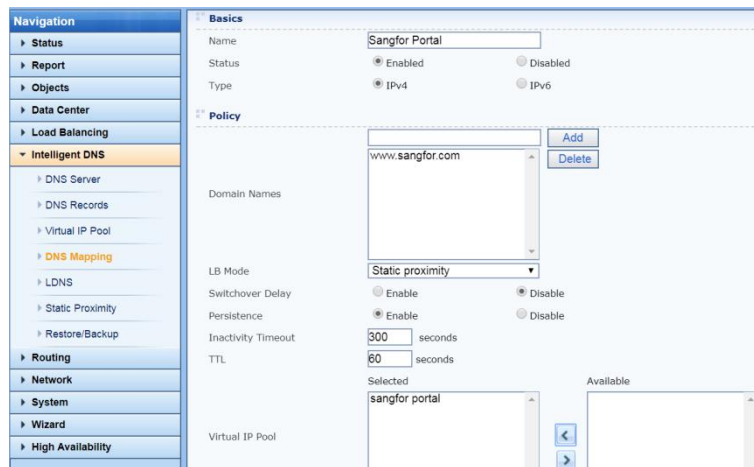
The screenshot shows the 'Intelligent DNS' configuration page for a 'DNS Server'. The left sidebar contains a navigation menu with options like Status, Report, Objects, Data Center, Load Balancing, Intelligent DNS (selected), DNS Server, DNS Records, Virtual IP Pool, DNS Mapping, LDNS, Static Proximity, Restore/Backup, Routing, Network, System, Wizard, and High Availability. The main content area is divided into 'Basics' and 'DNS Detection' sections. In the 'Basics' section, the 'Status' is set to 'Enabled'. The 'DNS Server' section shows a 'Service IP' of '10.0.0.1' in the 'Selected' list, with an 'Available' list empty. Below this, the 'DNS Port' is '53' and the 'Action if Not Exist' is 'Deny'. The 'DNS Detection' section shows a 'Detection Timeout' of '2' seconds, a 'Result Cache Time' of '10800' seconds, and a 'Detection Method' of 'DNS reverse lookup'. An 'OK' button is at the bottom.

2. Virtual IP Pool



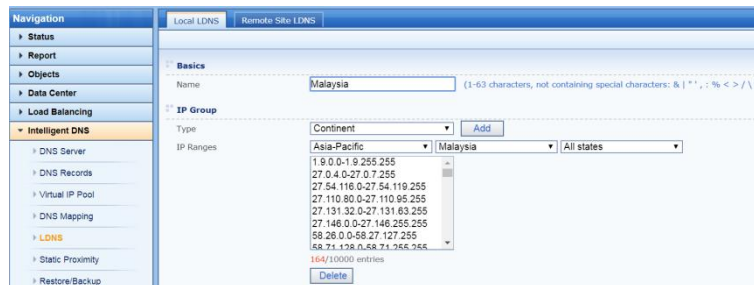
The screenshot shows the 'Virtual IP Pool' configuration page. The left sidebar is the same as in the first screenshot. The main content area has tabs for 'Local Virtual IP Pool' and 'Global Virtual IP Pool'. The 'Basics' section shows the 'Name' as 'sangfor portal', 'Status' as 'Enabled', and 'Type' as 'IPv4'. The 'Policy' section shows a 'Proactive Monitor' of 'ping' in the 'Selected' list, with an 'Available' list containing 'ping6', 'connect_tcp', 'connect_udp', 'http', 'ftp', 'pop3', 'smtp', and 'lvsaa'. Below this, 'Virtual IP Activation' is set to 'At least 1' monitors available, 'Busy Protection' is 'Enable', 'Preferred Policy' is 'Round robin', and 'Alternate Policy' is 'Weighted round robin'. The 'IP Pool' section shows a 'Virtual IP' list with '1.1.1.2:80/1 TCP' and '2.2.2.2:80/1 TCP'. An 'Add' button is next to the 'Weight' field. A 'localhost' dropdown is also visible.

3. DNS mapping



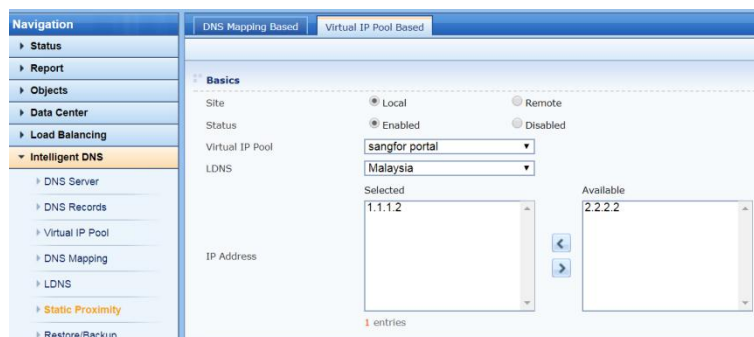
The screenshot shows the 'Intelligent DNS' configuration page in the Sangfor management console. The left sidebar contains a navigation menu with options like Status, Report, Objects, Data Center, Load Balancing, Intelligent DNS (selected), DNS Server, DNS Records, Virtual IP Pool, DNS Mapping, LDNS, Static Proximity, Restore/Backup, Routing, Network, System, Wizard, and High Availability. The main content area is divided into 'Basics' and 'Policy' sections. In the 'Basics' section, the 'Name' is 'Sangfor Portal', 'Status' is 'Enabled', and 'Type' is 'IPv4'. In the 'Policy' section, 'Domain Names' is 'www.sangfor.com', 'LB Mode' is 'Static proximity', 'Switchover Delay' is 'Enable', 'Persistence' is 'Enable', 'Inactivity Timeout' is '300 seconds', and 'TTL' is '60 seconds'. The 'Virtual IP Pool' section shows 'Selected' as 'sangfor portal' and 'Available' as an empty list.

4. LDNS



The screenshot shows the 'LDNS' configuration page in the Sangfor management console. The left sidebar is the same as the previous screenshot. The main content area is divided into 'Local LDNS' and 'Remote Site LDNS' tabs. The 'Local LDNS' tab is active, showing the 'Basics' section with 'Name' as 'Malaysia' and 'Type' as 'IP Group'. The 'IP Ranges' section shows a list of IP ranges for 'Asia-Pacific' and 'Malaysia', including '192.0.0.0-255.255', '27.0.4.0-27.0.7.255', '27.54.116.0-27.54.119.255', '27.110.80.0-27.110.95.255', '27.131.32.0-27.131.63.255', '27.146.0.0-27.146.255.255', '58.26.0.0-58.27.127.255', and '58.71.128.0-58.71.255.255'. The 'Delete' button is visible at the bottom.

5. Static Proximity-virtual IP pool based



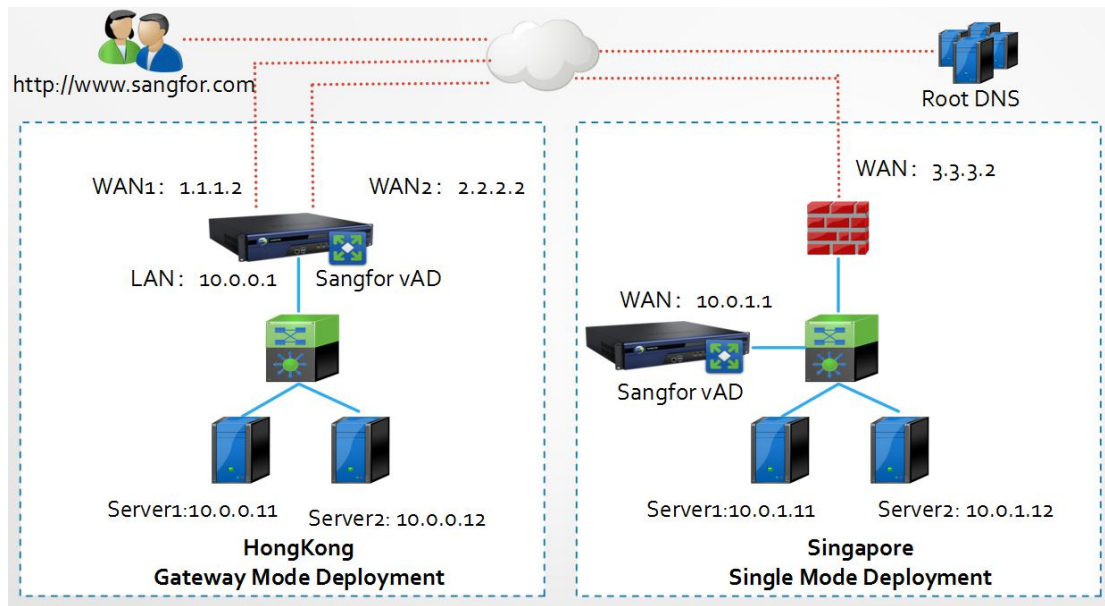
The screenshot shows the 'Static Proximity-virtual IP pool based' configuration page in the Sangfor management console. The left sidebar is the same as the previous screenshots. The main content area is divided into 'DNS Mapping Based' and 'Virtual IP Pool Based' tabs. The 'Virtual IP Pool Based' tab is active, showing the 'Basics' section with 'Site' as 'Local', 'Status' as 'Enabled', 'Virtual IP Pool' as 'sangfor portal', and 'LDNS' as 'Malaysia'. The 'IP Address' section shows 'Selected' as '1.1.1.2' and 'Available' as '2.2.2.2'. The 'Delete' button is visible at the bottom.

If customer has no policy requirements, just resolve domain to IP, DNS records also can meet customer's needs.

6. Add Destination NAT in FW, 1.1.1.2 and 2.2.2.2 UDP port 53 mapping to 10.0.0.1

7. Add NS records www.sangfor.com to 1.1.1.2 and 2.2.2.2 in domain provider

Global Server Load Balance



Customer's HQ in HongKong, HQ has two WAN link ,this customer also has a data center in Singapore.

Customer hope Chinese mainland and HongKong user access portal from HongKong site, Malaysia and Singapore user access portal from Singapore site, Other region user access to the fastest site.

1. Data center

The screenshot shows the Sangfor vAD configuration interface for a Data Center. The 'Sites' tab is active, displaying the configuration for the 'HongKong' site.

Basic Information:

- Site Name: HongKong
- Location:

Others Information:

- Selected Addresses: 1.1.1.2, 2.2.2.2
- Available Addresses: WAN1, WAN2
- Port: 558
- Role: Server
- Tolerance: 5 seconds
- Encryption Key:
- Confirm Key:

Buttons: Cancel, OK

Navigation

Status

Report

Objects

Data Center

Load Balancing

Intelligent DNS

Routing

Network

System

Wizard

High Availability

Sites

Basics

Site Name

Singapore

Others

Address

3.3.3.2

Add

Delete

Port

558

Cancel

OK

Navigation

Status

Report

Objects

Data Center

Load Balancing

Intelligent DNS

Routing

Network

System

Wizard

High Availability

Sites

+ Add

X Delete

Auto Refresh: 5 seconds

Site Name	IP Address	Port
HongKong	1.1.1.2,2.2.2.2	558
Singapore	3.3.3.2	558

2. DNS server

Navigation

Status

Report

Objects

Data Center

Load Balancing

Intelligent DNS

Routing

Network

System

Wizard

High Availability

DNS Server

Basics

Status

☒ Enabled
 ☐ Disabled

DNS Server

Selected

1.1.1.2

2.2.2.2

Available

Service IP

DNS Port

53

Action if Not Exist

☐ Not respond
 ☒ Deny
 ☐ Proxy

DNS Detection

Detection Timeout

2

seconds

Result Cache Time

10800

seconds

Detection Method

DNS reverse lookup

OK

3. Global virtual IP pool

Navigation

Status

Report

Objects

Data Center

Load Balancing

Intelligent DNS

Routing

Network

System

Wizard

High Availability

Local Virtual IP Pool

Global Virtual IP Pool

Basics

Name

HongKong

Status

☒ Enabled
 ☐ Disabled

Policy

Selected

ping

Available

connect_tcp

connect_udp

http

ftp

pop3

smtp

imap

irc.1.1.1

Proactive Monitor

Virtual IP Activation

At least

1

monitors available

Associated Virtual Services

Selected

HTTP service/local/HongKong

Available

HongKong

local

HTTP service

SANGFOR

Policy

Busy Protection ☒ Enable ☐ Disable

Preferred Policy

Alternate Policy

IP Pool

Virtual IP Addresses

Address

Port

Protocol Weight

1.1.1.2:80/1 TCP
2.2.2.2:80/1 TCP

HongKong/local
HTTP service
1.1.1.2:80 TCP
2.2.2.2:80 TCP

Navigation									
<ul style="list-style-type: none"> Status Report Objects Data Center Load Balancing Intelligent DNS <ul style="list-style-type: none"> DNS Server DNS Records Virtual IP Pool DNS Mapping LDNS Static Proximity Restore/Backup Routing Network System Wizard High Availability 									
	<table border="1"> <thead> <tr> <th colspan="2">Local Virtual IP Pool</th></tr> <tr> <th>Name</th><th>Virtual IP</th></tr> </thead> <tbody> <tr> <td>HongKong</td><td>1.1.1.2,2.2.2.2</td></tr> <tr> <td>Singapore</td><td>3.3.3.2</td></tr> </tbody> </table>	Local Virtual IP Pool		Name	Virtual IP	HongKong	1.1.1.2,2.2.2.2	Singapore	3.3.3.2
Local Virtual IP Pool									
Name	Virtual IP								
HongKong	1.1.1.2,2.2.2.2								
Singapore	3.3.3.2								

4. Global DNS mapping

Navigation

Local DNS Mapping | **Global DNS Mapping** | Rule Troubleshooting

Basics

Name

Status ☒ Enabled ☐ Disabled

Policy

Domain Names

LB Mode

Switchover Delay ☐ Enable ☒ Disable

Persistence ☒ Enable ☐ Disable

Inactivity Timeout seconds

TTL seconds

Selected: HongKong, Singapore

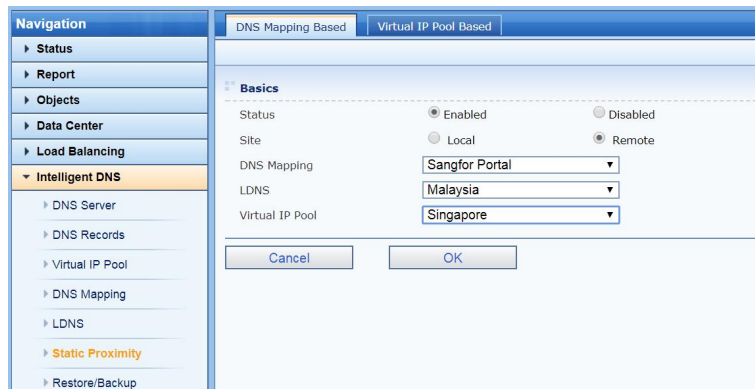
Available:

Virtual IP Pool

5. Remote site LDNS

Navigation													
<ul style="list-style-type: none"> Status Report Objects Data Center Load Balancing Intelligent DNS <ul style="list-style-type: none"> DNS Server DNS Records Virtual IP Pool DNS Mapping LDNS Static Proximity Restore/Backup Routing Network System Wizard High Availability 													
	<table border="1"> <thead> <tr> <th colspan="2">Local LDNS</th></tr> <tr> <th>Name</th><th>IP Group</th></tr> </thead> <tbody> <tr> <td>Malaysia</td><td>1.9.0.0-1.9.255.255,27.0.0-27.0.7.255,27.54.116.0-27.54.119.255,27.110.80.0-27.110.95.255,27.131.27.0.0-27.0.11.255,27.34.176.0-27.34.191.255,27.54.0.0-27.54.63.255,27.96.96.0-27.96.127.255,27.1.36.0.0-1.36.255.255,1.64.0.0-1.65.255.255,27.30.32.0-27.50.39.255,27.98.192.0-27.98.207.255,27.1.12.0.0-1.15.255.255,1.24.0.0-1.31.255.255,1.45.0.0-1.45.255.255,1.48.0.0-1.49.255.255,1.51.0.0-1.51.255.255</td></tr> <tr> <td>Singapore</td><td>27.0.8.0-27.0.11.255,27.34.176.0-27.34.191.255,27.54.0.0-27.54.63.255,27.96.96.0-27.96.127.255,27.1.36.0.0-1.36.255.255,1.64.0.0-1.65.255.255,27.30.32.0-27.50.39.255,27.98.192.0-27.98.207.255,27.1.12.0.0-1.15.255.255,1.24.0.0-1.31.255.255,1.45.0.0-1.45.255.255,1.48.0.0-1.49.255.255,1.51.0.0-1.51.255.255</td></tr> <tr> <td>HongKong</td><td>1.36.0.0-1.36.255.255,1.64.0.0-1.65.255.255,27.30.32.0-27.50.39.255,27.98.192.0-27.98.207.255,27.1.12.0.0-1.15.255.255,1.24.0.0-1.31.255.255,1.45.0.0-1.45.255.255,1.48.0.0-1.49.255.255,1.51.0.0-1.51.255.255</td></tr> <tr> <td>China</td><td>1.12.0.0-1.15.255.255,1.24.0.0-1.31.255.255,1.45.0.0-1.45.255.255,1.48.0.0-1.49.255.255,1.51.0.0-1.51.255.255</td></tr> </tbody> </table>	Local LDNS		Name	IP Group	Malaysia	1.9.0.0-1.9.255.255,27.0.0-27.0.7.255,27.54.116.0-27.54.119.255,27.110.80.0-27.110.95.255,27.131.27.0.0-27.0.11.255,27.34.176.0-27.34.191.255,27.54.0.0-27.54.63.255,27.96.96.0-27.96.127.255,27.1.36.0.0-1.36.255.255,1.64.0.0-1.65.255.255,27.30.32.0-27.50.39.255,27.98.192.0-27.98.207.255,27.1.12.0.0-1.15.255.255,1.24.0.0-1.31.255.255,1.45.0.0-1.45.255.255,1.48.0.0-1.49.255.255,1.51.0.0-1.51.255.255	Singapore	27.0.8.0-27.0.11.255,27.34.176.0-27.34.191.255,27.54.0.0-27.54.63.255,27.96.96.0-27.96.127.255,27.1.36.0.0-1.36.255.255,1.64.0.0-1.65.255.255,27.30.32.0-27.50.39.255,27.98.192.0-27.98.207.255,27.1.12.0.0-1.15.255.255,1.24.0.0-1.31.255.255,1.45.0.0-1.45.255.255,1.48.0.0-1.49.255.255,1.51.0.0-1.51.255.255	HongKong	1.36.0.0-1.36.255.255,1.64.0.0-1.65.255.255,27.30.32.0-27.50.39.255,27.98.192.0-27.98.207.255,27.1.12.0.0-1.15.255.255,1.24.0.0-1.31.255.255,1.45.0.0-1.45.255.255,1.48.0.0-1.49.255.255,1.51.0.0-1.51.255.255	China	1.12.0.0-1.15.255.255,1.24.0.0-1.31.255.255,1.45.0.0-1.45.255.255,1.48.0.0-1.49.255.255,1.51.0.0-1.51.255.255
Local LDNS													
Name	IP Group												
Malaysia	1.9.0.0-1.9.255.255,27.0.0-27.0.7.255,27.54.116.0-27.54.119.255,27.110.80.0-27.110.95.255,27.131.27.0.0-27.0.11.255,27.34.176.0-27.34.191.255,27.54.0.0-27.54.63.255,27.96.96.0-27.96.127.255,27.1.36.0.0-1.36.255.255,1.64.0.0-1.65.255.255,27.30.32.0-27.50.39.255,27.98.192.0-27.98.207.255,27.1.12.0.0-1.15.255.255,1.24.0.0-1.31.255.255,1.45.0.0-1.45.255.255,1.48.0.0-1.49.255.255,1.51.0.0-1.51.255.255												
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6. Static proximity--DNS mapping based



The screenshot shows the 'Intelligent DNS' configuration window with the 'DNS Mapping Based' tab selected. The 'Status' is set to 'Enabled'. The 'Site' is set to 'Remote'. The 'DNS Mapping' dropdown is set to 'Sangfor Portal'. The 'LDNS' dropdown is set to 'Malaysia'. The 'Virtual IP Pool' dropdown is set to 'Singapore'. There are 'Cancel' and 'OK' buttons at the bottom.



The screenshot shows the 'Intelligent DNS' configuration window with the 'Virtual IP Pool Based' tab selected. It displays a table of DNS mappings.

	DNS Mapping	LDNS	Virtual IP Pool	Site	Operation
<input type="checkbox"/>	Sangfor Portal	Malaysia	Singapore	Global	
<input type="checkbox"/>	Sangfor Portal	Singapore	Singapore	Global	
<input type="checkbox"/>	Sangfor Portal	HongKong	HongKong	Global	
<input type="checkbox"/>	Sangfor Portal	China	HongKong	Global	

7. Add NS records www.sangfor.com to 1.1.1.2/2.2.2.2/3.3.3.2 in domain provider

* Singapore site FW should mapping 3.3.3.2 port 53 and port 558 to 10.0.1.1