

## How to Connect Barracuda SecureEdge to Teridion via IPsec Static Routing

<https://campus.barracuda.com/doc/101056611/>

Barracuda SecureEdge offers integration with Teridion. Teridion Connect provides numerous PoPs (Points of Presence) across the globe, including China, to allow access to their network backbone. Barracuda SecureEdge can connect to the TCR (Teridion Cloud Router) deployed in one of the PoPs by using IPsec to leverage their backbone to improve connectivity. In addition, BGP can be used as a dynamic routing protocol to learn and propagate networks. For more information, visit the [Teridion website](#).

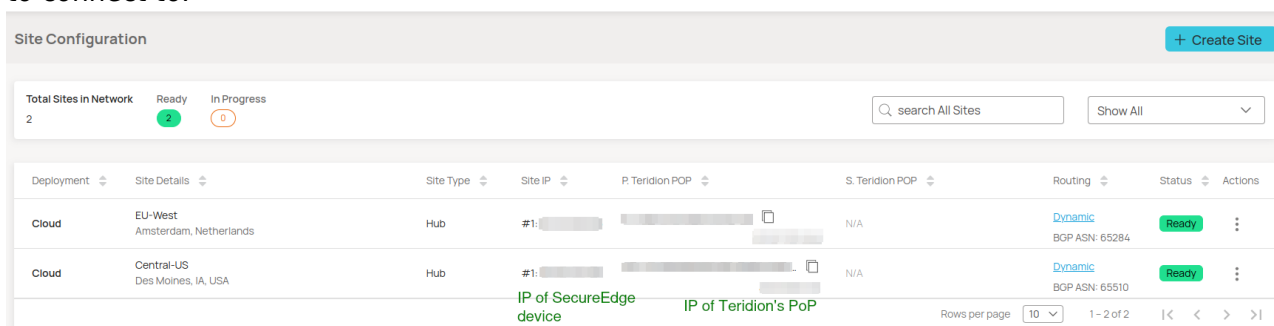
### Before You Begin

- Deploy and set up your Teridion infrastructure. For assistance on the Teridion setup, please [contact Teridion](#).

### Step 1. Collect Site Information

Log into your Teridion portal and collect the following information:

1. From the **Site Configuration** page, collect the information on the PoE IP from the site you need to connect to.



The screenshot shows the 'Site Configuration' page in the Teridion portal. At the top, there's a '+ Create Site' button. Below it, a summary bar shows 'Total Sites in Network' as 2, with 2 'Ready' (green) and 0 'In Progress' (orange). A search bar and a 'Show All' dropdown are also present. The main table lists two sites:

| Deployment | Site Details                      | Site Type | Site IP        | P. Teridion POP | S. Teridion POP | Routing                   | Status | Actions |
|------------|-----------------------------------|-----------|----------------|-----------------|-----------------|---------------------------|--------|---------|
| Cloud      | EU-West<br>Amsterdam, Netherlands | Hub       | #1: [redacted] | [redacted]      | N/A             | Dynamic<br>BGP ASN: 65284 | Ready  | ⋮       |
| Cloud      | Central-US<br>Des Moines, IA, USA | Hub       | #1: [redacted] | [redacted]      | N/A             | Dynamic<br>BGP ASN: 65510 | Ready  | ⋮       |

Below the table, there are labels: 'IP of SecureEdge device' pointing to the 'Site IP' column and 'IP of Teridion's PoP' pointing to the 'P. Teridion POP' column. At the bottom right, there's a 'Rows per page' dropdown set to 10 and a pagination indicator '1 - 2 of 2'.

#### ○ Site Details

Site Configuration ▶ View & Edit EU-West SAVE CHANGES ✕

Site Details Tunnel Type High Availability Gateways Site Type Routing IPSEC Bandwidth

1 ✓ ✓ ✓ ✓ ✓ ✓ ✓

**Step 1 Site Name**

Select a name for your site

EU-West

Alphabetic characters and special symbols [-;:'. \_] only, must start with a character. Min 5 characters.

**Step 2 Site Location**

Select a location for your site

Amsterdam, Netherlands

- **Tunnel type**

Site Configuration ▶ View & Edit EU-West SAVE CHANGES ✕

Site Details Tunnel Type High Availability Gateways Site Type Routing IPSEC Bandwidth

✓ 2 ✓ ✓ ✓ ✓ ✓ ✓

**Tunnel Type**

Select a tunneling type for your site

☒ IPSEC

☐ GRE

**Routing Method**

Select a routing type for your site

☒ Route Based

☐ Dynamic (BGP)

☐ Policy Based

**IPSEC** (Internet Protocol Security) is a secure network protocol suite that authenticates and encrypts the packets of traffic to provide secure communication between two nodes over an IP network.

**Route Based** traffic is routed through the tunnel based on a destination IP address.

- **High Availability (Optional)**

- **Gateways**

- **FQDN**

Site Configuration ▶ View & Edit EU-West SAVE CHANGES ✕

Site Details Tunnel Type High Availability Gateways Site Type Routing IPSEC Bandwidth

✓ ✓ ✓ 4 ✓ ✓ ✓ ✓

**FQDN**

GW #1

**FQDN Identifier**

Create FQDN for Teridion POP/s

Primary FQDN

P - .d1.teridioncloud.net

Secondary FQDN

S - .d1.teridioncloud.net

**Teridion Local ID**

Select an option for local ID per your router settings

Gateway #1

☒ FQDN ☐ Send as text

**FQDN ID** is recommended enter a string for FQDN creation to be used for connecting to Teridion POPs. If not filed, Teridion will provide you with one. When configuring the site Gateway, use the Teridion Router FQDN for the IPsec connection IP and ID.

**Local ID** the Teridion router will always use the designated FQDN for its local ID. If the gateway software is not able to resolve the ID field FQDN to IP, select "send as text" option; in that case, the Teridion Router will send/validate its own FQDN as a text string for IPsec ID.

- **Gateways IPs**

Site Configuration ▶ View & Edit EU-West SAVE CHANGES ✕

Site Details Tunnel Type High Availability Gateways Site Type Routing IPSEC Bandwidth

✓ ✓ ✓ **4** ✓ ✓ ✓ ✓

FQDN

**GW #1**

General

Monitoring

Tunnels

**General Details**  
Set up Gateway #1

Gateway #1 IP address / FQDN  ✓ Entry IP is pingable  
Must be a valid IP address / FQDN

**IP of the SecureEdge device**

Remote ID  
 Resolve as IP / FQDN

Pre-shared secret

## • Static Routing

Site Configuration ▶ View & Edit EU-West SAVE CHANGES ✕

Site Details Tunnel Type High Availability Gateways Site Type Routing IPSEC Bandwidth

✓ ✓ ✓ ✓ ✓ **6** ✓ ✓

**Static Routing**  
Add at least one subnet to your site

Add subnet  
 ADD

All subnets

| # | Subnets     | Action |
|---|-------------|--------|
| 1 | 10.2.0.0/16 |        |

This step allows manual defining of subnets for routing by the site, by adding them to the site subnet list.

## • IPsec IKEv2 Settings

### ◦ IPsec Phase 1

Site Configuration ▶ View & Edit EU-West SAVE CHANGES ✕

Site Details Tunnel Type High Availability Gateways Site Type Routing IPSEC Bandwidth

✓ ✓ ✓ ✓ ✓ ✓ **7** ✓

**IPSEC**

☐ Default ☒ Custom

**Phase 1**

IKE version  
☐ 1 ☒ 2

IPSEC mode  
☒ N/A

DPD delay/interval (Sec)

DPD timeout (Sec)

Encryption

Authentication

Diffie-Hellman group

Lifetime (Sec)

**Phase 1** is used to protect IKE messages that are exchanged between two IKE peers, or security endpoints.  
**Phase 2** is used to protect IP traffic, as specified by the security policy for a specific type of traffic, between two data endpoints.

**IKEv2**  
DPD delay/interval Sets the duration of tunnel idleness before liveness check is triggered.  
DPD timeout Sets the retransmissions timeout of the liveness-check.  
The tunnel will be considered down after DPD delay/interval + DPD timeout

### ◦ IPsec Phase 2

Site Configuration ▶ View & Edit EU-West **SAVE CHANGES** [X]

Site Details Tunnel Type High Availability Gateways Site Type Routing IPSEC Bandwidth

Diffie-Hellman group:  Lifetime (Sec):

☒ Responder only

**Phase 2**

Encryption:  Authentication:

PFS group (Sec):  Lifetime (Sec):

The tunnel will be considered down after DPD delay/interval + DPD timeout

In this example, we have collected the following settings:

- **PoE (IP Teridion Router):** 52.252.228.31
- **SiteID (Firewall Internal IP):** 10.2.0.4
- **Gateway #1 IP (Firewall Public IP):** 23.99.253.105

#### IKEv2 Authentication Settings

| Phase 1           |         | Phase 2           |        |
|-------------------|---------|-------------------|--------|
| Encryption        | AES128  | Encryption        | AES256 |
| Hash              | MD5     | Hash              | MD5    |
| DH-Group          | Group 5 | DH-Group          | Group5 |
| Proposal Handling | Strict  | Proposal Handling | Strict |
| Lifetime [s]      | 28800   | Lifetime          | 3600   |

## Step 2. Configure IPsec IKEv2 Static Routing

On Barracuda SecureEdge, do the following:

- Go to <https://se.barracudanetworks.com> and log in with your existing Barracuda Cloud Control account.
- In the left menu, click the **Tenants/Workspaces** icon and select the workspace you want to configure the IPsec IKEv2 tunnel for.
- Go to **Integration > IPsec VPN**.
- The **IPsec VPN** page opens. To add tunnel, click **Add IPsec Tunnel**.

Demo Enterprises Inc/Production  
Integration > IPsec VPN

[Add IPsec Tunnel](#)

[Add filter](#) [Edit columns](#)

| NAME        | ENABLED | SECUREEDGE PEER  | REMOTE GATEWAY  | TYPE        |       |
|-------------|---------|------------------|---|-------------|-------|
| WestEurope  | ✓       | Austria (Wan1)   | myvpngateway2.westeurope.cl... myvpngateway1.westeurope.cl... | IPSec IKEv2 | ⋮ ✎ 🗑 |
| UAE         | ✓       | Dubai (Etisalat) | 20.36.72.11   | IPSec IKEv2 | ⋮ ✎ 🗑 |
| EastUS      | ⓘ       | UnitedStates     | myvpngateway.eastus.cloudap...                                | IPSec IKEv2 | ⋮ ✎ 🗑 |
| WestUS      | ✓       | UnitedStates     | myvpngateway.westus.cloudap...                                | IPSec IKEv2 | ⋮ ✎ 🗑 |
| BrazilSouth | ✓       | Brazil           | myvpngateway.brazilsouth.cl...                                | IPSec IKEv2 | ⋮ ✎ 🗑 |

5. The **Create IPsec Tunnel** window opens. In the **General** tab, specify values for the following:

- **Enable** – Click to enable.
- **Initiates** – Click to enable.

In the **GENERAL INFORMATION** section, specify values for the following:

- **Name** – Enter a unique tunnel name.
- **Description** – Enter a brief description.

In the **AUTHENTICATION** section, specify values for the following:

- **Authentication** – Select pre-shared key.
- **Shared Secret** – Enter the shared secret to use a shared passphrase to authenticate.

The shared secret can consist of small and capital characters, numbers, and non-alphanumeric symbols, except the hash sign (#).

Create IPsec Tunnel ×

1

2

3

4

5

General

Source/Destination

Phases

Network

Success

To create a new tunnel go through the following settings to configure it.

i

 Enable

☒

i

 Initiates

☒

GENERAL INFORMATION

i

 Name \*

WestEurope

i

 Description

SecureEdge -Teridion Integrati

AUTHENTICATION

i

 Authentication \*

Pre-shared key

i

 Shared Secret \*

.....

Next

6. Click **Next**.

7. In the **Source/Destination** tab, specify values for the following:

- **Enable BGP** – Click to disable.

In the **SOURCE** section, specify values for the following:

- **Type** – Select Site.
- **Peer** – Select the peer from the drop-down list.
- **WAN Interface** – Select the WAN interface from the drop-down list.
- **Local ID** – Enter the local ID. Enter your internal IP, e.g., 10.2.0.4
- **Network Address** – Add the local networks and click +.

In the **DESTINATION** section, specify values for the following:

- **Remote Gateway** – Enter your PoE IP for TCR, e.g., 52.252.228.31
- **Remote ID** – Enter your PoE IP for TCR, e.g., 52.252.228.31
- **Network Address** – Add your remote networks that are reachable via Teridion and click +.

Create IPsec Tunnel ×

1 ✓ General 2 ● Source/Destination 3 ● Phases 4 ● Network 5 ● Success

i Enable BGP ☐

SOURCE

Type \*

Peer \*

WAN Interface

i Local ID

i Network Addresses \*  ×  +

DESTINATION

i Remote Gateway \*

i Remote ID

i Network Addresses \*  ×  +

8. Click **Next**.

9. In the **Phases** tab, configure the following settings:

To configure **PHASE 1** encryption settings matching your Teridion setup, specify values for the following:

- **Encryption** – Select **AES**.
- **Hash** – Select **MD5**,
- **DH-Group** – Select **Group 5**.
- **Proposal Handling** – Select **Strict**.
- **Lifetime** – Enter 28800

To configure **PHASE 2** encryption settings matching your Teridion setup, specify values for the following:

- **Encryption** – Select **AES-256**
- **Hash** – **MD5**.
- **DH-Group** – Select **Group 5**.
- **Proposal Handling** – Select **Strict**.
- **Life time** – Enter 3600.

- **Traffic Volume Enabled** – Click to disable.

Create IPsec Tunnel ×

General ✓ Source/Destination ✓ Phases 3 Network 4 Success 5

PHASE 1

**i** Encryption \* AES

**i** Hash \* MD5

**i** DH Group \* Group 5

**i** Proposal Handling \* Strict

**i** Lifetime \* 28800

PHASE 2

**i** Encryption \* AES256

**i** Hash \* MD5

**i** DH Group \* Group 5

**i** Proposal Handling \* Strict

**i** Lifetime \* 3600

10. Click **Next**.

11. The **Network** blade opens. In the **NETWORK SETTINGS** section, specify values for the following:

- **One VPN Tunnel Per Subnet Pair** – Click to disable.
- **Universal Traffic Selectors** – Click to enable.
- **Force UDP Encapsulation** – Click to disable.
- **IKE Reauthentication** – Click to enable.

In the **DEAD PEER DETECTION** section, specify values for DPD to match your Teridion configuration.

- **Action When Detected** – Select the action from the drop-down list. You can choose between the following:
  - **None** – Disable DPD.
  - **Clear** – Connection with the dead peer is stopped, and routes removed.
  - **Restart** – Connection is restarted.
- **Delay** – Enter the number of seconds after which an empty INFORMATIONAL message is



sent to check if the remote peer is still available. Note: DPD Delay is required when detected DPD action is set to anything other than **None**.

Create IPsec Tunnel ×

✓

✓

✓

4

5

General

Source/Destination

Phases

Network

Success

Configure the Network Settings. These are advanced options and is not mandatory for a general tunnel.

NETWORK SETTINGS

*i* One VPN Tunnel per Subnet Pair ☒

*i* Universal Traffic Selectors ☒

*i* Force UDP Encapsulation ☒

*i* IKE Reauthentication ☐

DEAD PEER DETECTION

*i* Action when detected

*i* Delay

Back Save

12. Click **Save**.

13. Verify that your IPsec tunnel configuration has been created successfully.

Create IPsec Tunnel ×

New IPsec Tunnel successfully created

Finish

14. Click **Finish**.

After the configuration is complete, you can see a new IPsec tunnel is shown on the **IPsec VPN** page, and the status of the field names (e.g., **Enabled**) can be verified.

Demo Enterprises Inc/Production  
Integration > IPsec VPN

[Add IPsec Tunnel](#)

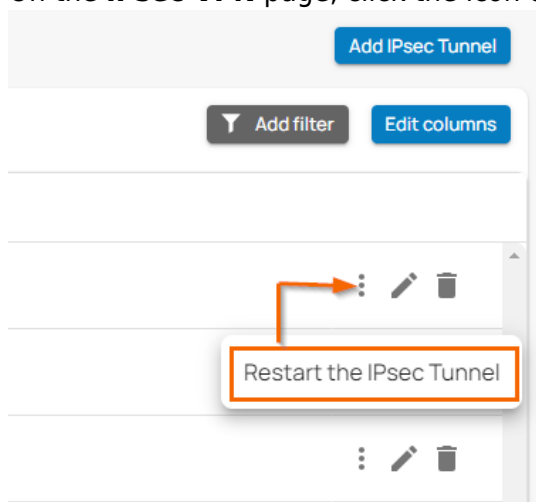
[Add filter](#) [Edit columns](#)

| NAME        | ENABLED | SECUREEDGE PEER  | REMOTE GATEWAY  | TYPE        |
|-------------|---------|------------------|---|-------------|
| WestEurope  | ✓       | Austria (Wan1)   | myprngateway2.westeurope.cl... myprngateway1.westeurope.cl... | IPSec IKEv2 |
| UAE         | ✓       | Dubai (Etisalat) | 20.36.72.11   | IPSec IKEv2 |
| EastUS      | ⓘ       | UnitedStates     | myprngateway.eastus.cloudap...                                | IPSec IKEv2 |
| WestUS      | ✓       | UnitedStates     | myprngateway.westus.cloudap...                                | IPSec IKEv2 |
| BrazilSouth | ✓       | Brazil           | myprngateway.brazilsouth.cl...                                | IPSec IKEv2 |

## (Optional) Restart the IPsec Tunnel

If you must restart the IPsec tunnel, proceed with the following steps:

1. On the **IPsec VPN** page, click the icon of three vertical dots to restart the IPsec tunnel.

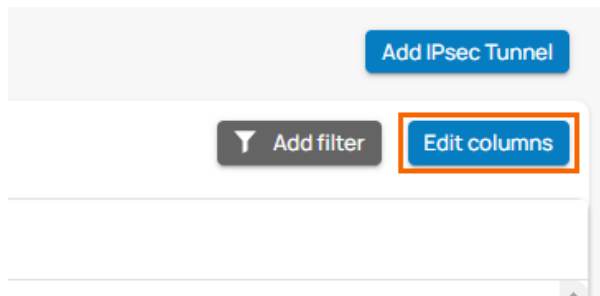


2. Click **Restart the IPsec Tunnel**.

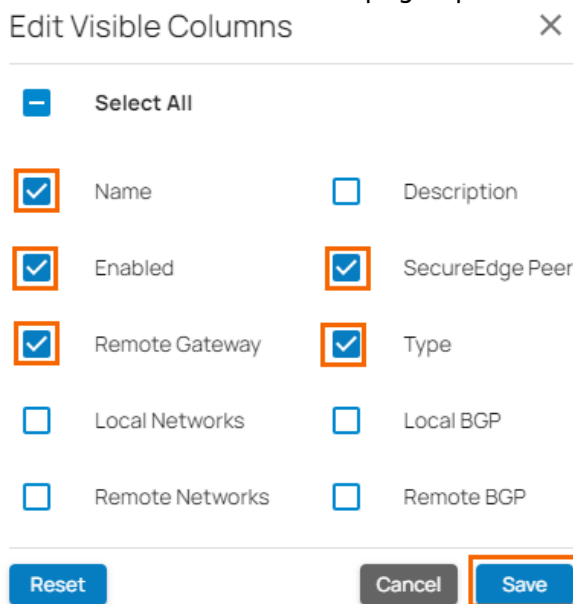
To restart the IPsec tunnel that is not initiated from the SecureEdge Manager, you may need to initiate the remote-side tunnel to bring the IPsec tunnel back up.

## (Optional) Edit Visible Columns

1. To get more detailed information on IPsec VPN, click **Edit columns**.



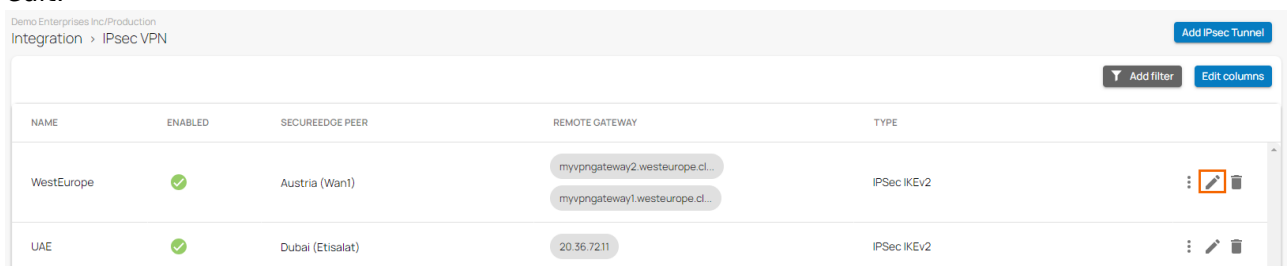
- The **Edit Visible Columns** page opens.



- Select the field names you wish to display the columns for, and click **Save**.

## Edit an Existing IPsec VPN Tunnel

- Go to <https://se.barracudanetworks.com> and log in with your existing Barracuda Cloud Control account.
- In the left menu, click the **Tenants/Workspaces** icon and select the workspace you want to edit the IPsec IKEv2 tunnel for.
- Go to **Integration > IPsec VPN**.
- The **IPsec VPN** page opens. Click on the pencil icon next to the IPsec IKEv2 tunnel you want to edit.



- The **Edit IPsec Tunnel** window opens. Edit the value you are interested in.
- Click **Save**.

## Remove an Existing IPsec VPN Tunnel

1. Go to <https://se.barracudanetworks.com> and log in with your existing Barracuda Cloud Control account.
2. In the left menu, click the **Tenants/Workspaces** icon and select the workspace you want to remove the IPsec IKEv2 tunnel for.
3. Go to **Integration > IPsec VPN**.
4. The **IPsec VPN** page opens. Click on the trashcan icon next to the IPsec IKEv2 tunnel you want to remove.

Demo Enterprises Inc/Production  
Integration > IPsec VPN

Add IPsec Tunnel

Add filter Edit columns

| NAME       | ENABLED | SECUREEDGE PEER  | REMOTE GATEWAY   | TYPE        |       |
|------------|---------|------------------|--|-------------|-------|
| WestEurope | ✓       | Austria (Want)   | myvpngateway2.westeurope.cl...<br>myvpngateway1.westeurope.cl... | IPsec IKEv2 | ⋮ ✎ 🗑 |
| UAE        | ✓       | Dubai (Etisalat) | 20.36.72.11  | IPsec IKEv2 | ⋮ ✎ 🗑 |

5. The **Delete IPsec Tunnel <Name of Tunnel>** window opens.

Delete IPsec Tunnel UAE

Are you sure you want to delete this IPsec Tunnel?

Cancel

Ok

6. Click **Ok** to confirm.

## Monitoring a VPN Site-to-Site Tunnel

To verify that the VPN tunnel was initiated successfully and traffic is flowing, proceed with the following steps:

1. Go to <https://se.barracudanetworks.com> and log in with your existing Barracuda Cloud Control account.
2. In the left menu, click the **Tenants/Workspaces** icon and select the workspace containing your site.
3. Go to **Infrastructure > Sites**. The **Sites** page opens.
4. Select the site you want to verify the status for. Click on the arrow icon next to the site.

Demo Enterprises Inc/Production  
Infrastructure > Sites

New site

Add filter Edit columns

|   | NAME         | SERIAL | MODEL | EDGE SERVICE | CLOUD VWAN   | CONNECTION STATUS | PEERING ADDRESS | LANs                          | WANs   |          |
|---|--------------|--------|-------|--------------|--------------|-------------------|-----------------|-------------------------------|--|----------|
| ✓ | Innsbruck    | 327437 | T200C | Austria      | Private Edge | Online            | 169.254.0.3     | 10.14.0.1/24<br>10.14.64.1/18 | T-Mobile-Austria...<br>Telekom-Austria...<br>UPC-Austria (192... | ⬇️ ⬇️ ➡️ |
| ✓ | Johannesburg | 714821 | T200C | SouthAfrica  | Private Edge | Online            | 169.254.0.2     | 10.14.0.1/24<br>10.14.64.1/18 | Supersonic (Dyna...<br>Vodacom (WWAN)                            | ⬇️ ⬇️ ➡️ |

5. In the **Site** menu, the **Dashboard** page opens. You can see the status of all VPN tunnels for the corresponding sites.

VPN Tunnels

| STATUS | NAME      | PEER            | LOCAL        | TYPE             |
|--------|-----------|-----------------|--------------|------------------|
| ✓ Up   | wanhub-S5 | 109.224.194.180 | 172.16.10147 | TINA Site-2-Site |
| ✓ Up   | wanhub-S5 | 109.224.194.148 | 172.16.10224 | TINA Site-2-Site |
| ✓ Up   | wanhub-S5 | 109.224.194.114 | 172.16.1074  | TINA Site-2-Site |
| ✓ Up   | wanhub-S5 | 109.224.194.107 | 172.16.1071  | TINA Site-2-Site |

## Figures

1. Site-Configuration.png
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7. IpsecPhase1.png
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20. Ipsec-DeleteTunnel.png
21. ClickOK.png
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