Pocket Guide

Establish Site-to-Site VPN Connection between XG Firewall and SonicWall

Product: Sophos XG Firewall
## Contents

**Overview** .............................................................................................................................................. 3  
**Prerequisite** ........................................................................................................................................... 3  
**Network Diagram** ................................................................................................................................. 3  
**Configuration** ......................................................................................................................................... 4  
  - Sophos XG Firewall............................................................................................................................... 4  
    - Add Local and Remote LAN .............................................................................................................. 4  
    - Create an IPsec VPN Connection ...................................................................................................... 5  
    - Create IPsec Connection .................................................................................................................. 6  
    - Create Firewall Policy ..................................................................................................................... 8  
  - SonicWall ................................................................................................................................................ 9  
    - Create Address Object ................................................................................................................... 9  
    - Enable VPN ...................................................................................................................................... 10  
    - Create VPN Policies ...................................................................................................................... 10  
    - Activate Connection ...................................................................................................................... 13  
**Result** ................................................................................................................................................... 14  
**Copyright Notice** ................................................................................................................................. 15
Establish Site-to-Site VPN connection with Sonic Wall

**Overview**

This guide describes how to configure site-to-site IPsec VPN tunnel between Sophos XG Firewall and SonicWall, using pre-shared key to authenticate VPN peers.

**Prerequisite**

You must have read-write permissions on the SFOS Admin Console and SonicWall Web Admin Console for the relevant features.

**Network Diagram**
**Configuration**

**Sophos XG Firewall**

**Add Local and Remote LAN**

- Go to System > Hosts and Services > IP Host and click Add to create the local LAN.
- Enter the Name.
- Set IP Version to IPv4 and Type to Network.
- For IP Address, enter 172.16.16.0.

Click Save.

Similarly, create a remote LAN.
Establish Site-to-Site VPN connection with Sonic Wall

Create an IPsec VPN Connection

- Go to Configure > VPN > IPsec Profiles and click Add.
- Enter the Name.
- Set Key exchange to IKEv2 and Authentication Mode to Main Mode.
- For Key Negotiation Tries, select 5.
- Select Allow Re-keying.

![General Settings](image)

- Under Phase 1, set Key Life to 28800, Re-key Margin to 360, Randomize Re-Keying Margin by to 100 and DH Group [Key Group] to 14 (DH2048).
- Set Encryption to AES256 and Authentication to SHA2 256.

![VPN](image)

- Under Phase 2, set PFS Group [DH Group] to Same as Phase-I, and Key Life to 28800.
- Set Encryption and Authentication to the same parameters set in Phase 1.
Establish Site-to-Site VPN connection with Sonic Wall

- Select **Dead Peer Detection**.
- Set **Check Peer After Every** to 30 seconds, **Wait for Response Up to** to 120 seconds and **When Peer Unreachable** to **Disconnect**.

![Dead Peer Detection](image)

Click **Save**.

**Create IPsec Connection**

- Go to **Configure > VPN > IPsec Connections** and click **Add**.
- Enter the **Name**.
- Set **IP Version** to **IPv4**.
- Set **Connection Type** to **Site-to-Site** and **Gateway Type** to **Initiate the Connection**.
- Under **Encryption**, set **Policy** to **Custom** (which you have created).
- Set **Authentication Type** to **Preshared Key**.
### General Settings
- **Name**: XG_3g_Sonicwall
- **IP Version**: IPv4
- **Connection Type**: Site-to-Site
- **Gateway Type**: Initiate the Connection

### Encryption
- **Policy**: Custom
- **Authentication Type**: Preshared Key

### Under **Gateway Settings** > **Local Gateway**, set Listening Interface to PortB – 10.198.67.43 and Local Subnet to XG_LAN.

### Under **Remote Gateway**, set Gateway Address to 10.198.66.84 and Remote Subnet to Sonicwall_LAN.

### Under **Advanced**, set User Authentication Mode to None.
Establish Site-to-Site VPN connection with Sonic Wall

Click **Save**.

The following screen appears with the IPsec connection, which you have created.

Click the red button under **Status (Active)** to activate the connection.

Create Firewall Policy

- Go to Protect > Firewall > + Add Firewall Rule and click User/Network Rule.
- Create firewall rules to allow LAN to VPN and VPN to LAN traffic.
Establish Site-to-Site VPN connection with Sonic Wall

**SonicWall**

**Create Address Object**

Go to **Network > Address Objects** and click **ADD**.

**Local Network**

- Enter the **Name**.
- Set **Zone Assignment** to **VPN** and **Type** to **Network**.
- For **Network**, enter **10.198.62.0** and for **Netmask/PREFIX Length**, enter **255.255.254.0**.

![Local Network SONICWALL Network Security Appliance](image)

**Remote Network** [to be connected through the VPN tunnel]

- Enter the **Name**.
- Set **Zone Assignment** to **VPN** and **Type** to **Network**.
- For **Network**, enter **172.16.16.0** and for **Netmask/PREFIX Length**, enter **255.255.255.0**.

![Remote Network SONICWALL Network Security Appliance](image)
Establish Site-to-Site VPN connection with Sonic Wall

Enable VPN

- Go to VPN > Settings.
- Under VPN Global Settings, select Enable VPN.
- Enter the Unique Firewall Identifier [available at System > Administration > Firewall Name]

![VPN/Settings](image)

Create VPN Policies

- Go to VPN > Settings > VPN Policies and click Add...
- In the General menu, under Security Policy, set Policy Type to Site to Site.
- Set Authentication Method to IKE using Preshared Secret.
- Enter the Name.
- For IPsec Primary Gateway Name or Address, enter 10.198.67.43.
- For IPsec Secondary Gateway Name or Address, enter 0.0.0.0.
- Under IKE Authentication, enter the Shared Secret and confirm.
- Set Local IKE ID and Peer IKE ID to IPv4 Address.
• Click the Network menu. Under Local Networks, select Choose local network from list and set it to Sonicwall_LAN.
• Under Remote Networks, select Choose destination network from list and set it to XG_LAN.

• In the Proposals menu, under IKE [Phase 1] Proposal, set Exchange to Main Mode.
• Set DH Group to Group 2.
• In the Proposals menu, under Ipsec [Phase 2] Proposal, set Protocol to ESP.

For IKE [Phase 1] Proposal and Ipsec [Phase 2] Proposal
• Set Encryption to 3DES, and Authentication to MD5.
• For Life Time [seconds], enter 28800.
• Click the Advanced menu. Under Advanced Settings, select Enable Windows Networking (NetBIOS) Broadcast.
• Set WXA Group to None.
• For Default LAN Gateway (optional), enter 0.0.0.0.
• Set VPN Policy bound to Zone WAN.
**Establish Site-to-Site VPN connection with Sonic Wall**

**Activate Connection**

**XG Firewall**

Go to Configure > VPN > IPsec Connections and click the red button under Status [Connection] to activate the connection.

**SonicWall**

Go to VPN > Settings > VPN Policies. Select the connection and click Add. It will now appear under Currently Active VPN Tunnels.

Run a ping test from XG firewall to SonicWall to check the connection.
Result

You have established site-to-site IPSec VPN tunnel between Sophos XG Firewall and SonicWall using preshared key.
Copyright Notice

Copyright 2016-2017 Sophos Limited. All rights reserved.

Sophos is a registered trademark of Sophos Limited and Sophos Group. All other product and company names mentioned are trademarks or registered trademarks of their respective owners.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise unless you are either a valid licensee where the documentation can be reproduced in accordance with the license terms or you otherwise have the prior permission in writing of the copyright owner.