Sangfor VPN

Troubleshooting guide for Sangfor VPN packets drop

Change Log

Date	Change Description
June 1, 2019	Troubleshooting guide for Sangfor VPN packets drop

CONTENT

1. Document Description 4

2. Applicable Version 4

3. Problem Scenario 4

4. Troubleshooting Guide 5

4.1 General Scenario Troubleshooting Step 5

4.2 Network Environment Issue 5

4.2.1 Check total branches in the envronment 5

4.2.2 Check if the Packet Loss is caused by internal network 5

4.2.3 Check if any security devices in the network with policy interception or have flow control 6

4.2.4 Check if it is caused by the multi-line or bandwidth full 6

5. Collect Information 7

6. Request Articles 7

1. Document Description

The purpose of this document is to provide guidance for troubleshooting on the packets drop issue with Sangfor VPN.

2. Applicable Version

This document is applicable for the packets drop issue with Sangfor VPN on all Sangfor product.

The version included VPN/DLAN version 5.0 onwards.

3. Problem Scenario

The packets drop issue with Sangfor VPN in this document is referring to the scenario that 2 Sangfor devices established Sangfor VPN, but there is packets drop whenever 2 sites transmit data.

For packets drop issue with Sangfor VPN, mainly divided into the following scenarios:

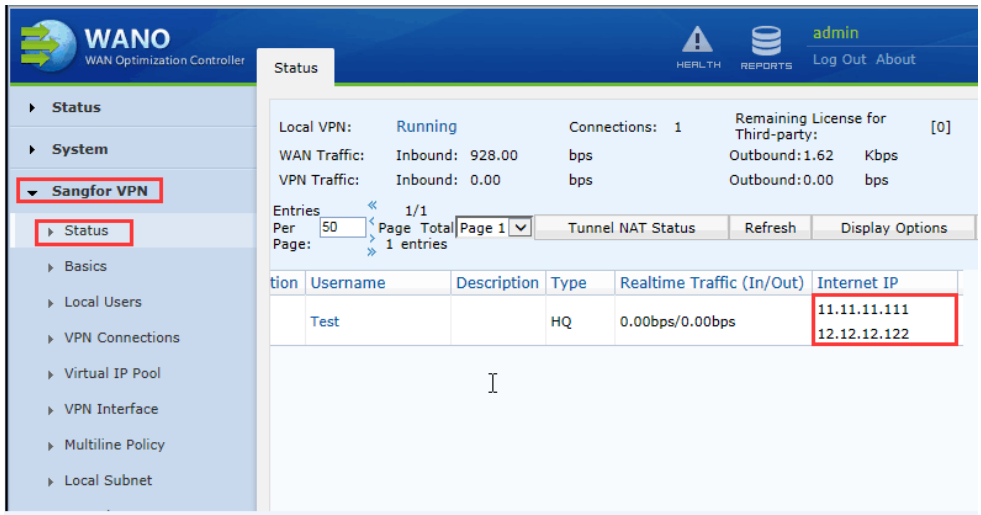
- Network Environment issue

4. Troubleshooting Guide

4.1 General Scenario Troubleshooting Step

The following basic information need to be confirmed for packets drop issue with Sangfor VPN:

1. Ensure the Sangfor VPN connection status is connected and normal.



2. Ensure the Internet IP in Sangfor VPN connection status is normal.

4.2 Network Environment Issue

4.2.1 Check total branches in the envronment

If there are multiple branches, confirm whether a branch have packet lost or all branches have packet lost. If all branches have packet loss, the problem may be more likely to occur at the HQ. Then we will first check the device at the HQ.

If there is a packet loss in an individual branch, the problem maybe occurs at the Branch, then we will first check the branch equipment.

4.2.2 Check if the Packet Loss is caused by internal network

For instance, in such an environment, loss packet happens when the PC accesses the HQ server:

PC---WANO---VPN(Branch)-----***Internet***-----VPN(HQ)---WANO---Server

We can confirm as follows:

1. Is there any packet loss from the branch PC to the branch VPN LAN? If there is a packet loss in the internal network itself, it is necessary to locate the internal network is there a problem with the network? Or see if the device LAN port *ifconfig* to see if there is a large number of drop packets and/or error package.

   If this is the case, you need to confirm the compatibility problem with the LAN

port or check if the network card is broken.

2. Check if there is any packet loss on the Ping packet to the public network. Ping the Public IP address from the branch device to check whether there is any packet loss. If there is packet loss, contact the IPS provider first to solve the problem of packet loss on the public network.
3. Check whether there is packet loss between the HQ VPN to the Server. If there is packet loss, solve the internal packet loss issue first.
4. Switching between TCP and UDP mode to try if there is any packet loss on this two modes. If it is just a protocol packet loss, the problem may occur in the middle of the network. That requires both sides of the WAN port to capture packet loss at the same time.

4.2.3 Check if any security devices in the network with policy interception or have flow control

1. Check if there is any firewall or Internet Access Control device at the branch and HQ that has policy to intercept the traffic. If there is a device with policy, it can by resolved by enabling the pass-through exclusion policy.
2. Check if there is any VPN packet loss caused by flow control on the HQ and branch. If possible, try to disable the flow control to see if it is root cause. If the flow control is done by the device like WANO, IAM or NGAF itself, it can be disabled first.

4.2.4 Check if it is caused by the multi-line or bandwidth full

1. If there are multiple lines in the HQ or branch, check whether it is caused by the instability of line. Check at the multi-line policy, if it is active-active policy, modify the multi-line policy to active-standby mode, so that the VPN traffic will go to the specific line to test if there is any problem with single line or all lines.
2. Check whether the Bandwidth of Outgoing Line of Branch and HQ is fully utilized. If the traffic consumed majority of the bandwidth, packet loss will occur. If the internet is idle, there will be no packet loss.

5. Collect Information

If the problem still unable to be resolve through the troubleshooting steps above, you can collect the below information and escalate the problem to Sangfor Technical Support with the Community Open a Case feature. Technical Engineer will contact you to provide assistance on resolving the issue.

Information need to be collect:

i. Server Model and both sides firmware version.

ii. Screenshot of the System Logs for both sides.

iii. What troubleshooting step you had gone through.

Open a support case access link:

http://community.sangfor.com/plugin.php?id=service:case

6. Request Articles

If you have new document requirement, you can feedback to us with the feedback link below. We will provide the troubleshooting guide document based on the feedback.

Feedback Link

CMS: http://192.200.19.22/request-articles/

Sangfor Community: http://community.sangfor.com/plugin.php?id=service:feedback

Copyright © SANGFOR Technologies Inc. All rights reserved.

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of SANGFOR Technologies Inc.

SANGFOR is the trademark of SANGFOR Technologies Inc. All other trademarks and trade names mentioned in this document are the property of their respective holders. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.

The information in this document is subject to change without notice.

To obtain the latest version, contact the international service center of SANGFOR Technologies Inc