SANGFOR

IAM

Flow control strategy Troubleshooting Guide

Version 12.0.18

Change Log

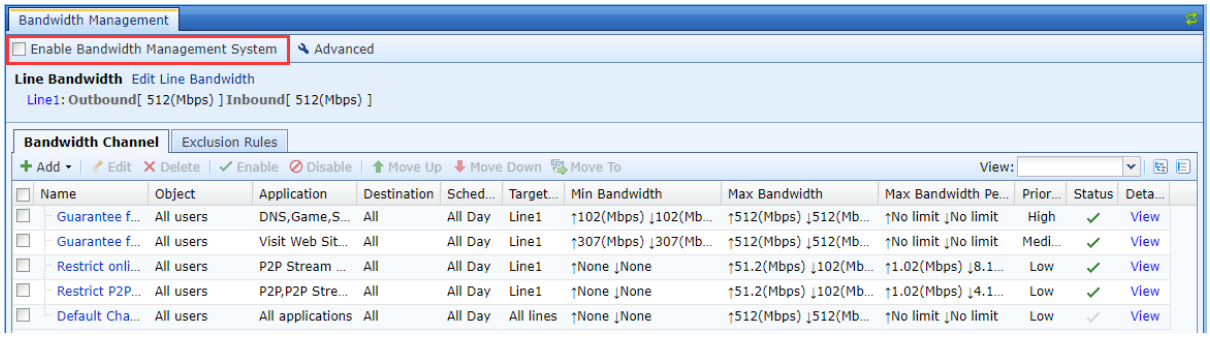
Date	Change Description
April 2, 2019	Version 12.0.18 document release.

CONTENT

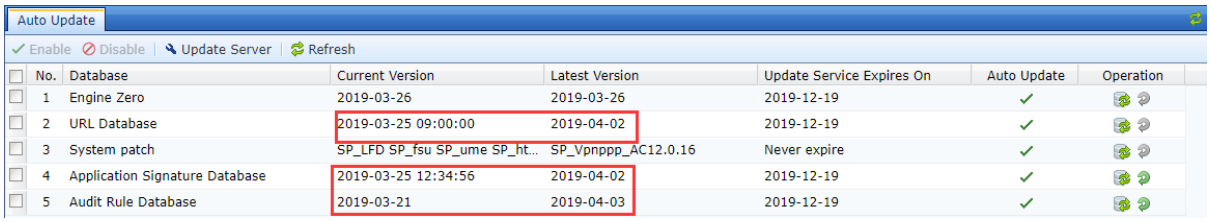
Chapter 1 Common troubleshooting

1 Check if the configuration is correct

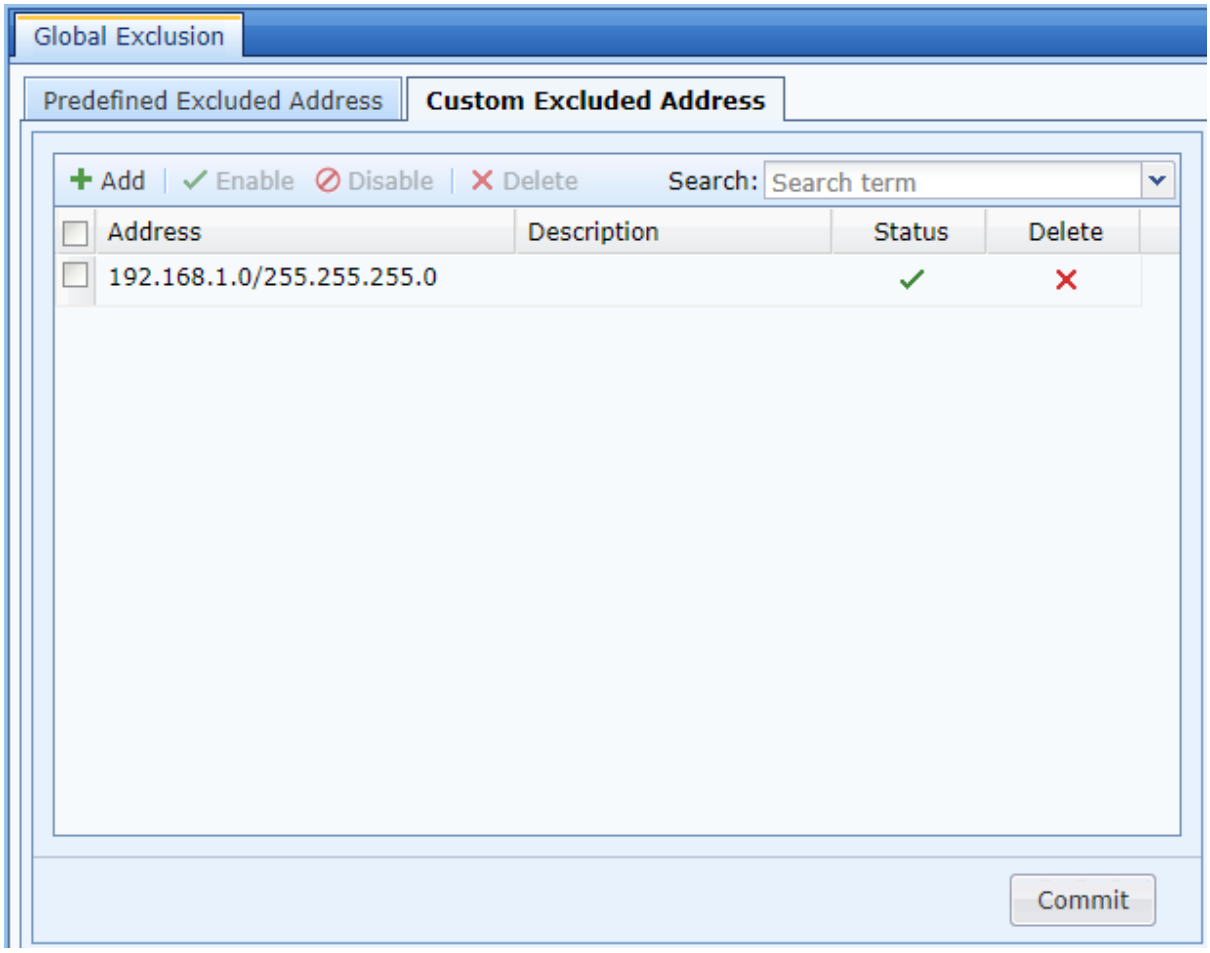
- Check if Bandwidth Management System is turned on.



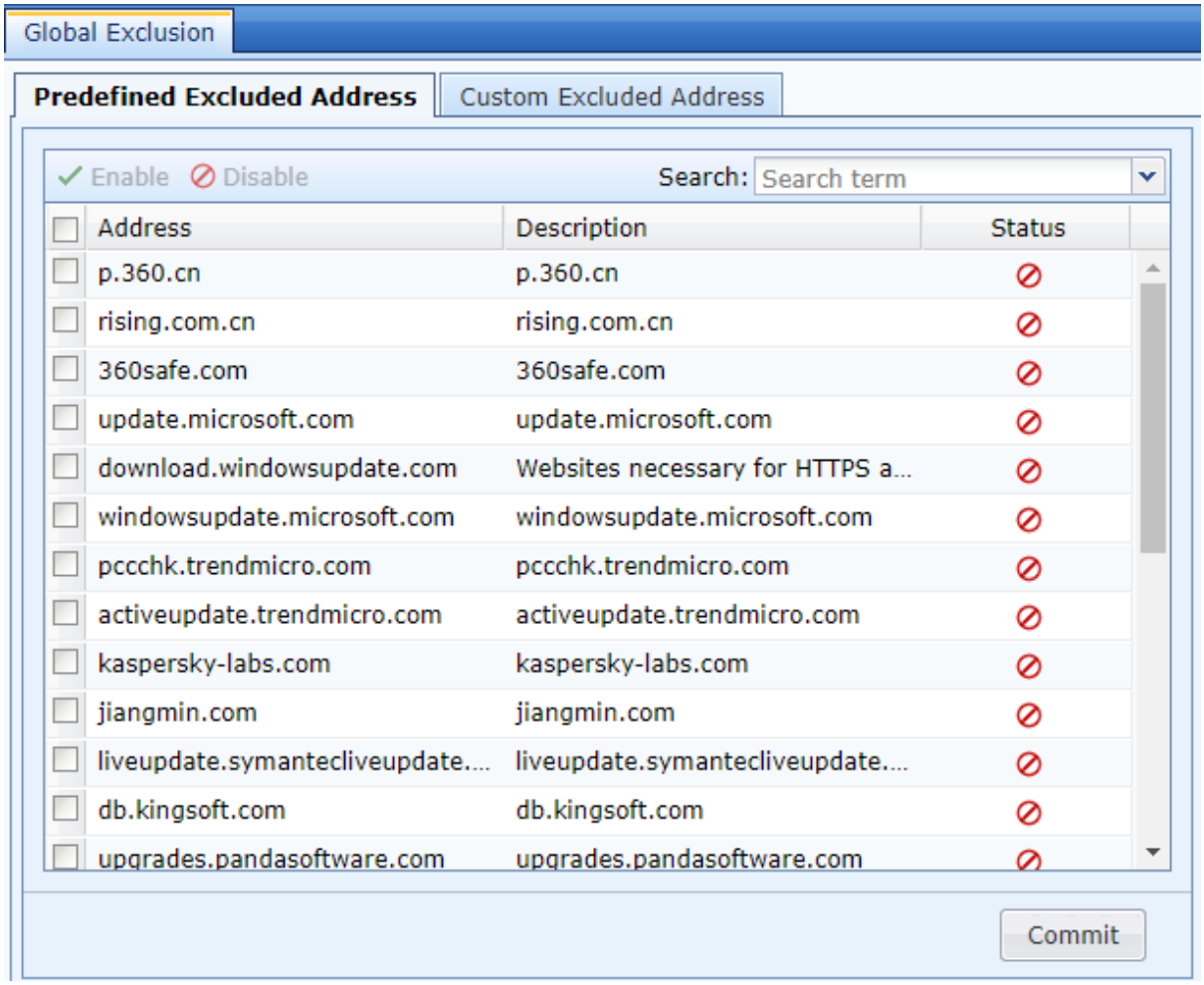
- Check if the database is updated to the latest.



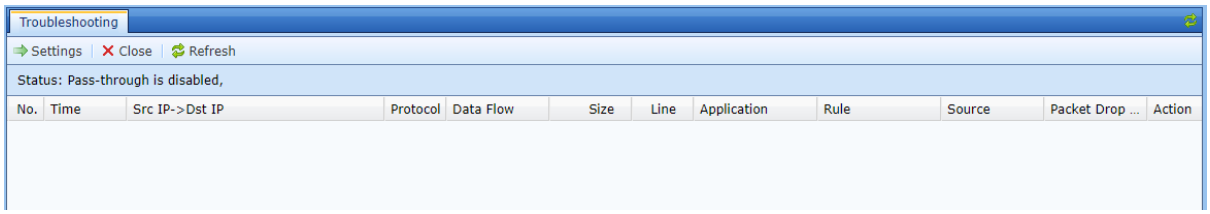
- Check whether the IP or peer address is added to Global Exclusion. If the address is added to Global Exclusion, it will not enter the Bandwidth Channel.



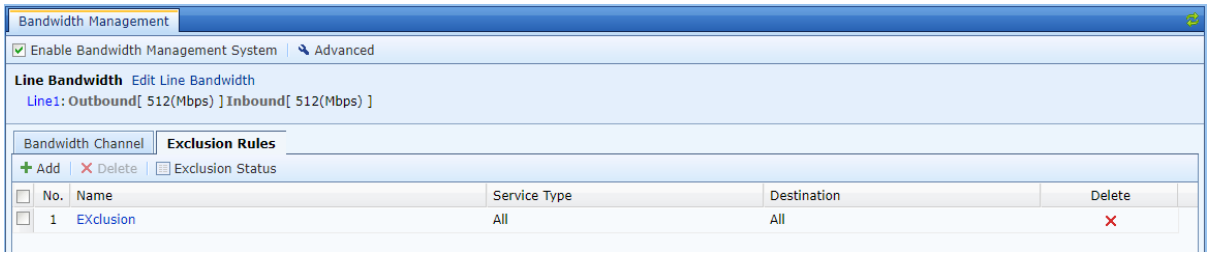
At the same time, when it is found that bandwidth limitations cannot be imposed on applications such as operating system updates or anti-virus software, please check if the address in Predefined Excluded Address is enabled.



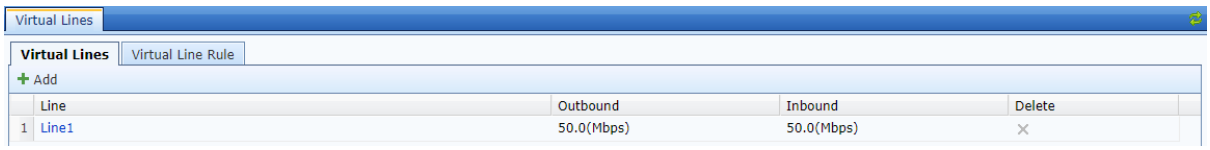
- Check if Troubleshooting is enabled. If Troubleshooting is enabled, traffic will not flow to Bandwidth Channel.



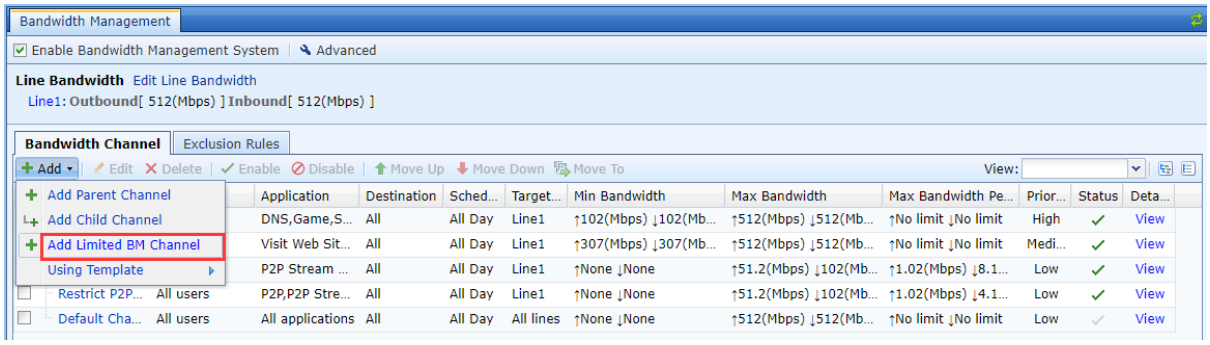
- Check whether Exclusion Rules is configured. If Exclusion Rules is configured, traffic of related applications will not enter Bandwidth Channel.



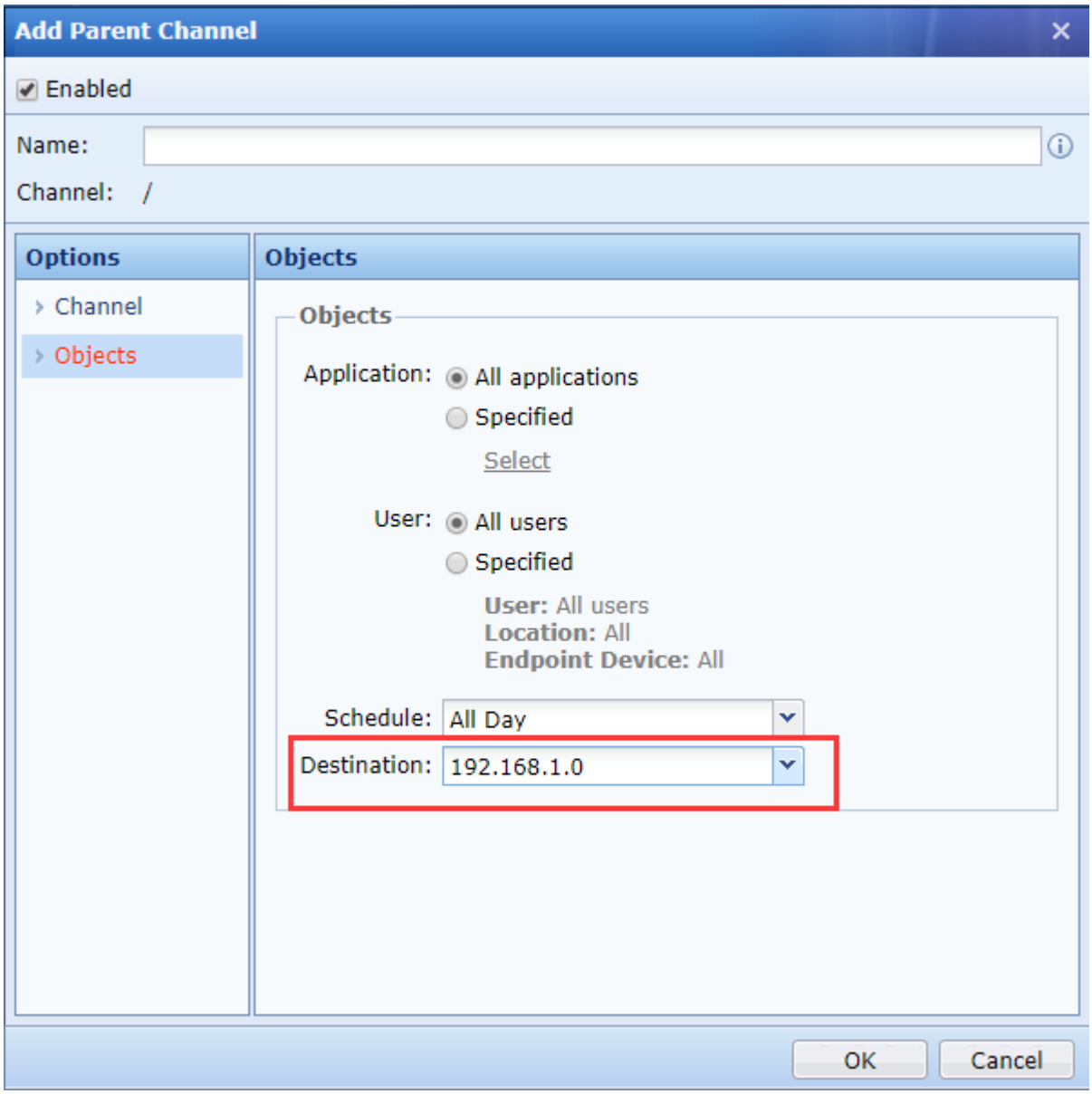
- Check if Virtual Line is configured correctly.



- Check if the Limited BM Channel is misconfigured, and the Limited BM Channel is used in conjunction with the Quota Policy, rather than being used to limit bandwidth alone.

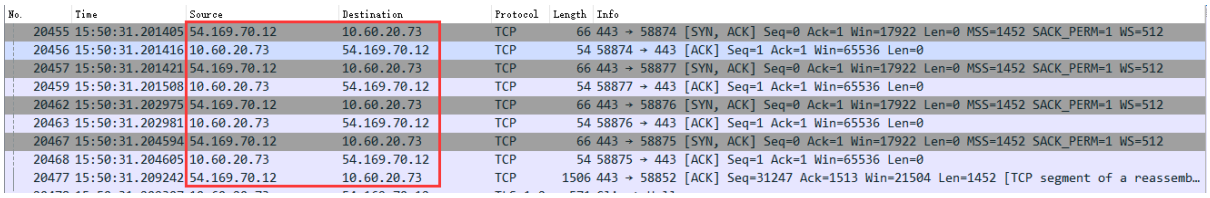


- Check whether Destination is specified. The IAM restricts the network speed to limit the traffic from LAN to WAN. If Destination is specified, it means that the packet will enter the Bandwidth Channel when the peer address belongs to the Destination area. The same is true for Schedule, traffic will enter the Bandwidth Channel during the time period defined by the Schedule.



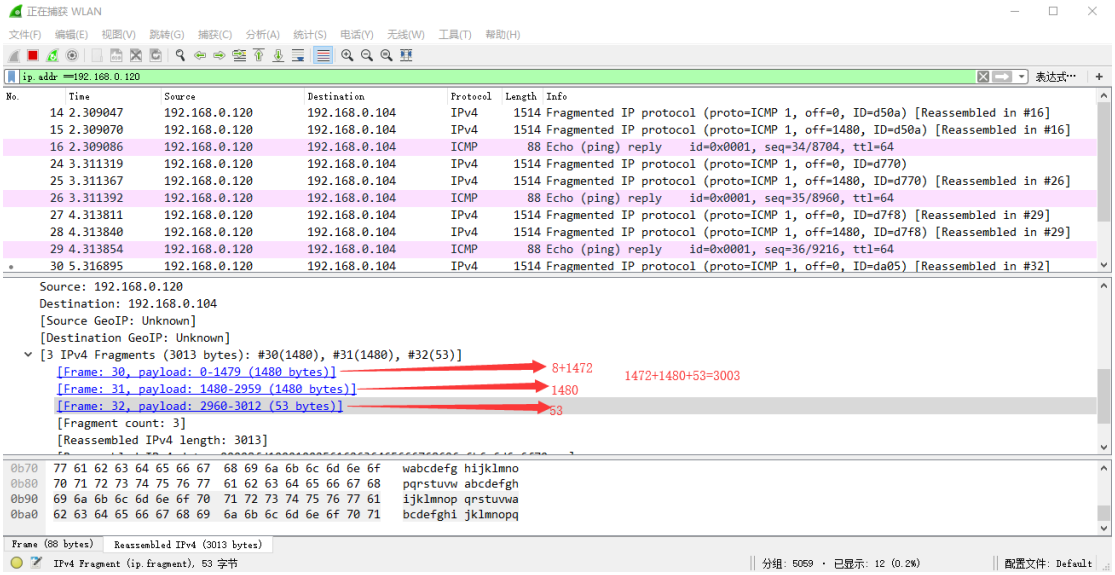
2 Analysis packet

- The capture packet analyzes whether the traffic passes through the device in both directions. If the traffic passes through the IAM device in one direction, traffic cannot be restricted.

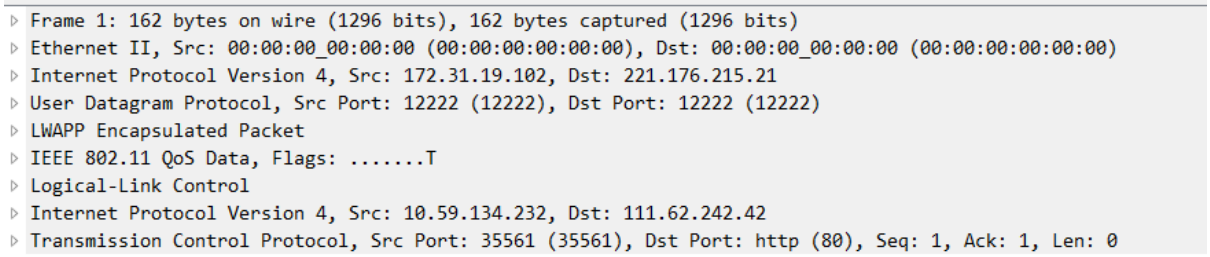


No.	Time	Source	Destination	Protocol	Length	Info
20455	15:50:31.201405	54.169.70.12	10.60.20.73	TCP	66	443 → 58874 [SYN, ACK] Seq=0 Ack=1 Win=17922 Len=0 MSS=1452 SACK_PERM=1 WS=512
20456	15:50:31.201416	10.60.20.73	54.169.70.12	TCP	54	58874 → 443 [ACK] Seq=1 Ack=1 Win=65536 Len=0
20457	15:50:31.201421	54.169.70.12	10.60.20.73	TCP	66	443 → 58877 [SYN, ACK] Seq=0 Ack=1 Win=17922 Len=0 MSS=1452 SACK_PERM=1 WS=512
20459	15:50:31.201508	10.60.20.73	54.169.70.12	TCP	54	58877 → 443 [ACK] Seq=1 Ack=1 Win=65536 Len=0
20462	15:50:31.202975	54.169.70.12	10.60.20.73	TCP	66	443 → 58876 [SYN, ACK] Seq=0 Ack=1 Win=17922 Len=0 MSS=1452 SACK_PERM=1 WS=512
20463	15:50:31.202981	10.60.20.73	54.169.70.12	TCP	54	58876 → 443 [ACK] Seq=1 Ack=1 Win=65536 Len=0
20467	15:50:31.204594	54.169.70.12	10.60.20.73	TCP	66	443 → 58875 [SYN, ACK] Seq=0 Ack=1 Win=17922 Len=0 MSS=1452 SACK_PERM=1 WS=512
20468	15:50:31.204605	10.60.20.73	54.169.70.12	TCP	54	58875 → 443 [ACK] Seq=1 Ack=1 Win=65536 Len=0
20477	15:50:31.209242	54.169.70.12	10.60.20.73	TCP	1506	443 → 58852 [ACK] Seq=31247 Ack=1513 Win=21504 Len=1452 [TCP segment of a reassemb…

- Check whether the data packet is fragmented. If the data packet is fragmented, contact the network administrator to check whether the MTU value of each device network port is reasonable.



- Check if there is a multi-layer protocol, If there is a multi-layer protocol package, please open the Protocol Extension.

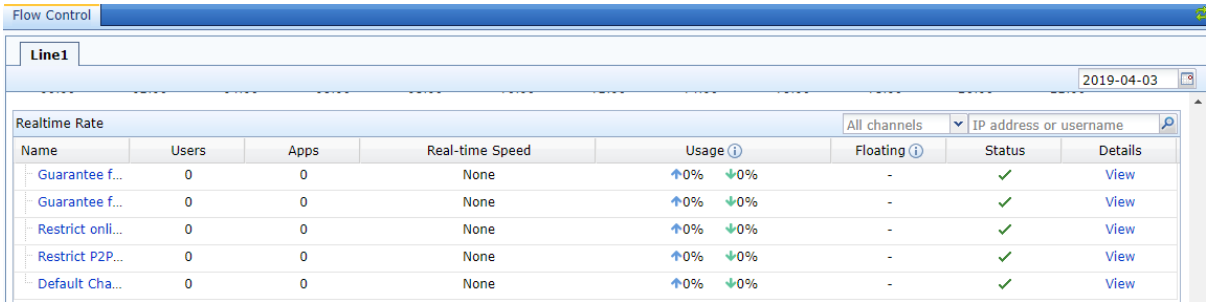


```
Frame 1: 162 bytes on wire (1296 bits), 162 bytes captured (1296 bits)
Ethernet II, Src: 00:00:00_00:00:00 (00:00:00:00:00:00), Dst: 00:00:00_00:00:00 (00:00:00:00:00:00)
Internet Protocol Version 4, Src: 172.31.19.102, Dst: 221.176.215.21
User Datagram Protocol, Src Port: 12222 (12222), Dst Port: 12222 (12222)
LWAPP Encapsulated Packet
IEEE 802.11 QoS Data, Flags: .......T
Logical-Link Control
Internet Protocol Version 4, Src: 10.59.134.232, Dst: 111.62.242.42
Transmission Control Protocol, Src Port: 35561 (35561), Dst Port: http (80), Seq: 1, Ack: 1, Len: 0
```

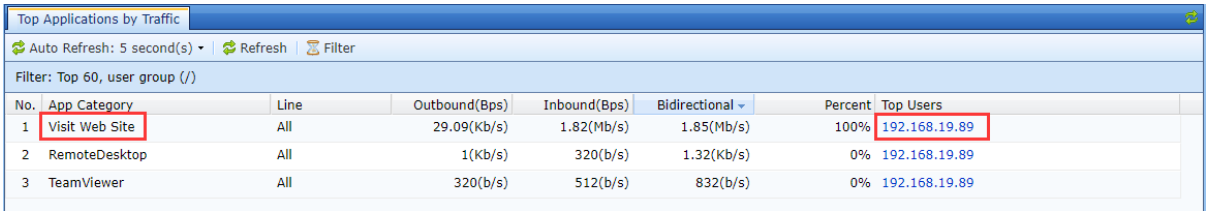
Analyze whether the packet direction is LAN to DMZ. Because the attributes of the DMZ are consistent with the LAN port, the traffic from the LAN to the DMZ will not enter the Bandwidth Channel, because the bandwidth of the IAM is controlled by the LAN to the WAN.

3 Application recognition result analysis

- When configuring the Bandwidth Channel Policy, please pay attention to whether the traffic flows into the Bandwidth Channel, and you can query it in Flow Control.



- Checking what the traffic is actually identified. With the development of the Internet, the data streams of various applications are rich in diversity. For example, using Thunder to download files, many files are downloaded in the same way as the Visit Web Site, so the data stream is identified. From the point of view, downloading the file using Thunder is actually similar to Visit Web Site, and has no connection with Thunder and Thunder related links, then the object we restrict should be the Visit Web Site rule.



- Check the application rules of the main traffic of an application. For example, some websites use HTTP and HTTPS resources. When accessing, some traffic will be identified as HTTP and SSL-related rules. If you need to limit the speed of the website, You need to limit both HTTP and SSL related rules.