

Cisco版本的4.1.3 WAAS故障排除指南及以后

章节：排除CIFS AO故障

此条款描述如何排除CIFS AO故障。

指南

主要

了解

初始

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CIFS AO排除故障

CIFS加速器透明地优化在端口139和445的CIFS数据流。

如图1所显示，您能验证一般AO配置和状态用**显示加速器**和**显示许可证**命令。企业许可证对于CIFS加速器操作是必需的。

图1.验证的加速器状态

Transparent and legacy services are mutually exclusive

```
WAE#sh accelerator
```

| Accelerator | Licensed | Config State | Operational State |
|-------------|----------|--------------|-------------------|
| cifs | Yes | Enabled | Running |
| epm | Yes | Enabled | Running |
| http | Yes | Enabled | Running |
| mapi | Yes | Enabled | Running |
| nfs | Yes | Enabled | Running |
| ssl | Yes | Enabled | Running |
| video | No | Enabled | Shutdown |
| wafs-core | Yes | Disabled | Shutdown |
| wafs-edge | Yes | Disabled | Shutdown |

```
WAE#sh license
```

| License Name | Status | Activation Date | Activated By |
|--------------|--------|-----------------|--------------|
|--------------|--------|-----------------|--------------|

其次，如图2.所显示，请验证是特定的对CIFS AO通过使用显示加速器cifs命令的状态。您要发现CIFS AO是启用的，运行和注册，并且连接限制显示。如果设置状态是启用的，但是操作状态被关闭，指示一个许可证问题。

图2.验证的CIFS加速器状态

请使用show running-config命令验证适当配置CIFS数据流策略。您要发现加速WAFS应用程序动作和您的cifs要为CIFS分类符发现列出的适当的匹配情况，如下：

```
WAE674# sh run | include CIFS

classifier CIFS
name WAFS classifier CIFS action optimize full accelerate cifs
WAE674# sh run | begin CIFS

...skipping
classifier CIFS
match dst port eq 139
match dst port eq 445
exit
```

请使用show statistics连接优化的cifs命令检查WAAS设备建立被最优化的CIFS连接。验证“TCDL”出现于连接的Accel列。“C”表明使用了CIFS AO。

```

WAE674# sh stat conn opt cifs
Current Active Optimized Flows: 3
  Current Active Optimized TCP Plus Flows: 3
  Current Active Optimized TCP Only Flows: 0
  Current Active Optimized TCP Preposition Flows: 1
Current Active Auto-Discovery Flows: 0
Current Active Pass-Through Flows: 0
Historical Flows: 100

```

```

D:DRE,L:LZ,T:TCP Optimization,
A:AOIM,C:CIFS,E:EPM,G:GENERIC,H:HTTP,M:MAPI,N:NFS,S:SSL,V:VIDEO

```

```

ConnID Source IP:Port Dest IP:Port PeerID Accel
1074 10.10.10.10:2704 10.10.100.100:445 00:14:5e:84:24:5f TCDL <-----Look
for "C"

```

如果看到“TDL”在Accel列，连接由仅传输最优化最优化和未由CIFS AO检查。此情况能发生，如果CIFS AO是失效的，企业许可证没有被配置，或者，如果最大连接限制达到。

如果看到“G”而不是一“C”在Accel列，则连接从CIFS AO增加了与通用的AO和被最了优化与仅传输最优化。此情况能发生，如果连接要求SMB2或一个数字签名和错误信息为它被记录。

在版本4.1.3， Syslog有数字式地签字的连接以下错误信息：

```

WAE674# sh stat conn opt cifs
Current Active Optimized Flows: 3
  Current Active Optimized TCP Plus Flows: 3
  Current Active Optimized TCP Only Flows: 0
  Current Active Optimized TCP Preposition Flows: 1
Current Active Auto-Discovery Flows: 0
Current Active Pass-Through Flows: 0
Historical Flows: 100

```

```

D:DRE,L:LZ,T:TCP Optimization,
A:AOIM,C:CIFS,E:EPM,G:GENERIC,H:HTTP,M:MAPI,N:NFS,S:SSL,V:VIDEO

```

```

ConnID Source IP:Port Dest IP:Port PeerID Accel
1074 10.10.10.10:2704 10.10.100.100:445 00:14:5e:84:24:5f TCDL <-----Look
for "C"

```

在版本4.1.5和以上，请检查CIFS内部错误日志发现原因为什么连接增加了与通用的AO。在cifs_err.log，请寻找SMB2连接的此消息：

```

WAE674# sh stat conn opt cifs
Current Active Optimized Flows: 3
  Current Active Optimized TCP Plus Flows: 3
  Current Active Optimized TCP Only Flows: 0
  Current Active Optimized TCP Preposition Flows: 1
Current Active Auto-Discovery Flows: 0
Current Active Pass-Through Flows: 0
Historical Flows: 100

```

```

D:DRE,L:LZ,T:TCP Optimization,
A:AOIM,C:CIFS,E:EPM,G:GENERIC,H:HTTP,M:MAPI,N:NFS,S:SSL,V:VIDEO

```

```

ConnID Source IP:Port Dest IP:Port PeerID Accel
1074 10.10.10.10:2704 10.10.100.100:445 00:14:5e:84:24:5f TCDL <-----Look

```

for "C"

在cifs_err.log , 请寻找数字式地签字的连接的消息 :

```
WAE674# sh stat conn opt cifs
Current Active Optimized Flows: 3
  Current Active Optimized TCP Plus Flows: 3
  Current Active Optimized TCP Only Flows: 0
  Current Active Optimized TCP Preposition Flows: 1
Current Active Auto-Discovery Flows: 0
Current Active Pass-Through Flows: 0
Historical Flows: 100

D:DRE,L:LZ,T:TCP Optimization,
A:AOIM,C:CIFS,E:EPM,G:GENERIC,H:HTTP,M:MAPI,N:NFS,S:SSL,V:VIDEO

ConnID  Source IP:Port      Dest IP:Port      PeerID              Accel
1074    10.10.10.10:2704    10.10.100.100:445  00:14:5e:84:24:5f  TCDL                <-----Look
for "C"
```

要查看从中央管理器的相似的信息 , 请选择WAE设备 , 然后选择**监控程序>最优化>连接统计**。

图3.连接统计报告

通过使用**show statistics连接优化的cifs detail**命令如下 , 您能查看CIFS连接统计 :

```
WAE674# sh stat connection optimized cifs detail
Connection Id: 1801
  Peer Id: 00:14:5e:84:24:5f
  Connection Type: EXTERNAL CLIENT
  Start Time: Thu Jun 25 06:15:58 2009
  Source IP Address: 10.10.10.10
  Source Port Number: 3707
  Destination IP Address: 10.10.100.100
  Destination Port Number: 139
  Application Name: WAFS <-----Should see WAFS
  Classifier Name: CIFS <-----Should see CIFS
  Map Name: basic
  Directed Mode: FALSE
  Preposition Flow: FALSE
  Policy Details:
    Configured: TCP_OPTIMIZE + DRE + LZ
    Derived: TCP_OPTIMIZE + DRE + LZ
    Peer: TCP_OPTIMIZE + DRE + LZ
    Negotiated: TCP_OPTIMIZE + DRE + LZ
```

```

Applied:          TCP_OPTIMIZE + DRE + LZ
Accelerator Details:
Configured:      CIFS <-----Should see CIFS
configured
Derived:         CIFS
Applied:         CIFS <-----Should see CIFS
applied
Hist:           None

```

| | Original | Optimized |
|----------------|----------|-----------|
| Bytes Read: | 189314 | 10352510 |
| Bytes Written: | 91649704 | 28512 |

. . .

Connection details:

Chunks: encoded 3, decoded 49922, anchor(forced) 0(1)

Total number of processed messges: 1820

num_used_block per msg: 0.140659

Ack: msg 1609, size 7066 B

Encode bypass due to:

last partial chunk: chunks: 1, size: 142 B

skipped frame header: messages: 138, size: 27202 B

Nacks: total 0

R-tx: total 0

Encode LZ latency: 0.060 ms per msg

Decode LZ latency: 0.071 ms per msg

Aggregation encode: Retransmissions: 0

<-----Packets lost

between peers

level 0: chunks: 3 hits: 0 miss: 3

level 1: chunks: 0 hits: 0 miss: 0

level 2: chunks: 0 hits: 0 miss: 0

level 3: chunks: 0 hits: 0 miss: 0

Aggregation decode: Collisions: 0

level 0: chunks: 174093 hits: 128716 miss: 0

level 1: chunks: 0 hits: 0 miss: 0

level 2: chunks: 0 hits: 0 miss: 0

level 3: chunks: 0 hits: 0 miss: 0

Aggregation stack memory usage: Sender: 452 B Receiver: 9119 B

Noise filter: Chunks: 0, Bytes: 0 B

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如果重新传输抵抗增量，意味着信息包在中部获得丢失，在两对等体WAEs之间。此情况将导致低吞吐量。您在两对等体WAEs之间的网络应该调查信息包的可能的原因丢失。

您能查看CIFS请求统计数据通过使用**请求**发出命令的**show statistics cifs**如下：

图4.检查的CIFS请求统计数据

```

WAE-612# show statistics cifs requests
Statistics gathering period: minutes: 33 seconds: 9 ms: 3
Total: 453
Remote: 214
ALL_COMMANDS total:453 remote:214 async:21 avg local:2.164ms avg remote:123.877ms
CLOSE_FILE total:31 remote:3 async:14 avg local:1.443ms avg remote:90.772ms
CONNECT total:15 remote:3 async:0 avg local:11.055ms avg remote:209.193ms
Cancel total:3 remote:3 async:0 avg local:0.0ms avg remote:95.094ms
DCERPC total:93 remote:93 async:0 avg local:0.0ms avg remote:95.671ms
DCERPC_SRVSVC total:25 remote:20 async:0 avg local:0.743ms avg remote:89.509ms
DCERPC_WKSSRV total:15 remote:11 async:0 avg local:1.134ms avg remote:90.786ms
ECHO total:2 remote:0 async:0 avg local:1.448ms avg remote:0.0ms
FIND_CLOSE2 total:1 remote:0 async:0 avg local:0.595ms avg remote:0.0ms
IOCTL total:3 remote:3 async:0 avg local:0.0ms avg remote:94.818ms
LOGOFF_ANDX total:3 remote:0 async:3 avg local:1.396ms avg remote:0.0ms
NB_SESSION_REQ total:6 remote:0 async:0 avg local:1.455ms avg remote:0.0ms
NEGOTIATE total:3 remote:3 async:0 avg local:0.0ms avg remote:99.003ms
NT_CREATE_ANDX total:137 remote:29 async:0 avg local:0.549ms avg remote:130.642ms
< .. >
WAE-612#

```

Local versus remote requests

Total: 453
Remote: 214

Response time for all cmds

Breakdown per CIFS cmd

CIFS AO记录

以下日志文件为排除CIFS AO问题故障是可用的：

- 事务处理日志文件：/local1/logs/tfo/working.log (和/local1/logs/tfo/tfo_log_*.txt)
- CIFS内部日志文件：/local1/errorlog/cifs/cifs_err.log
- 调试日志文件：/local1/errorlog/cifsao-errorlog.current (和cifsao-errorlog.*)

对于更加容易的调试，您应该首先设置ACL对一台主机限制信息包。

```

WAE674(config)# ip access-list extended 150 permit tcp host 10.10.10.10 any
WAE674(config)# ip access-list extended 150 permit tcp any host 10.10.10.10

```

对enable (event)处理日志，请使用处理日志配置命令如下：

```

wae(config)# transaction-logs flow enable
wae(config)# transaction-logs flow access-list 150

```

您能查看事务处理日志文件的末端通过使用类型尾标命令如下：

```

wae# type-tail tfo_log_10.10.11.230_20090715_130000.txt
:EXTERNAL CLIENT :00.14.5e.84.24.5f :basic :WAFS :CIFS :F :(DRE,LZ,TFO) (DRE,LZ,TFO)
(DRE,LZ,TFO) (DRE,LZ,TFO)
(DRE,LZ,TFO) :<None> :(CIFS) (CIFS) (CIFS) :<None> :<None> :0 :180
Wed Jul 15 15:48:45 2009 :1725 :10.10.10.10 :2289 :10.10.100.100 :139 :OT :START :EXTERNAL
CLIENT :00.14.5e.84.24.5f :basic :WAFS
:CIFS :F :(DRE,LZ,TFO) (DRE,LZ,TFO) (DRE,LZ,TFO) (DRE,LZ,TFO) (DRE,LZ,TFO) :<None> :(CIFS)
(CIFS) (CIFS) :<None> :<None> :0 :177
Wed Jul 15 15:48:55 2009 :1725 :10.10.10.10 :2289 :10.10.100.100 :139 :OT :END : EXTERNAL
CLIENT :(CIFS) :0 :0 :159 :221

```

要设置和enable (event) CIFS AO的调试记录，使用以下命令。

NOTE:调试记录强化中央处理，并且能生成很多输出。明智地和稀少请使用它在生产环境。

您能enable (event)详细日志到磁盘如下：

```
WAE674(config)# logging disk enable
WAE674(config)# logging disk priority detail
```

您能enable (event)连接的调试记录在ACL：

```
WAE674# debug connection access-list 150
```

CIFS AO调试的选项如下：

```
WAE674# debug accelerator cifs ?
  all          enable all CIFS accelerator debugs
  shell        enable CIFS shell debugs
```

您能enable (event) CIFS连接的调试记录然后显示调试错误日志的末端如下：

```
WAE674# debug accelerator cifs all
WAE674# type-tail errorlog/cifsao-errorlog.current follow
```

Windows打印加速器排除故障

Windows打印加速器优化客户端和Windows打印服务器之间的打印数据流。

排除Windows打印加速器故障类似于排除CIFS AO故障。如图1所显示，您能验证一般AO配置和状态用**显示加速器**和**显示许可证**命令。CIFS加速器一定是启用的，并且需要企业许可证。其次，通过使用**显示加速器cifs**命令，请验证状态特定对CIFS AO。

请使用**show statistics**窗口打印请求命令并且验证“描述缠绕”，并且“页被缠绕的”计数器增加，如下：

```
WAE# sh stat windows-print requests
Statistics gathering period:  hours: 6 minutes: 4 seconds: 2 ms: 484
Documents spooled: 29                                     <-----Should be
incrementing
Pages spooled: 3168                                       <-----Should be
incrementing
Total commands: 61050
Remote commands: 849
ALL_COMMANDS total: 61050 remote: 849 async: 58719 avg local: 1.813ms avg remote: 177.466ms
. . .
```