

WAAS — 排除通用AO故障

章节：排除通用AO故障

本文介绍如何排除通用AO故障。

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通用加速器故障排除

通用加速器可优化从其他AO向下推送的流量，因为它们无法优化流量。通用AO仅执行TFO优化。（DRE和LZ压缩优化由SO-DRE组件执行）

通用AO在以下条件下接收连接：

- 失败案例：AO在感知到数据无法理解后确定它无法处理连接。例如，如果CIFS AO检测到加密数据或未经身份验证的内容，它将无法处理该数据，并将推低与通用AO的连接。
- 多协议处理：例如，视频AO可以接受与WMT、RTSP等多个协议相关的所有连接。但是，视频AO目前仅提供RTSP优化，因此它不会处理与其他协议相关的连接，并将这些连接推下到通用AO。

将连接下推到通用AO的常见场景包括存在AO不理解或无法优化的连接的以下条件：

- 未经身份验证的CIFS

- SMB签名的CIFS
- 加密MAPI
- 非RTSP视频

检查是否使用通用AO的一种方法是查看来自其他AO的统计信息。例如，CIFS AO报告向下推送到通用AO的连接，如下所示：

```
WAE674# sh stat accelerator cifs detail
```

```
CIFS:
  Global Statistics
  -----
  Time Accelerator was started:                Tue Jul 14
  11:55:09 2009
  Time Statistics were Last Reset/Cleared:     Thu Jul 16
  04:16:35 2009
  Total Handled Connections:                   32
  Total Optimized Connections:                 1
  Total Connections Handed-off with Compression Policies Unchanged: 24      <-----
Pushed down to generic AO
  Total Dropped Connections:                   0
  Current Active Connections:                  0
  Current Pending Connections:                 0
  Maximum Active Connections:                  4
  Number of local reply generating requests:   3388
  Number of remote reply generating requests:  415
  The Average time to generate a local reply (msec): 25
  Average time to receive remote reply (ms):   2147
```

您还可以检查连接统计信息，以查看对连接应用的优化。在show statistics connection输出中，“G”表示连接由通用AO处理，如下所示：

```
WAE674# sh stat connection
```

```
Current Active Optimized Flows:                2
  Current Active Optimized TCP Plus Flows:     2
  Current Active Optimized TCP Only Flows:    0
  Current Active Optimized TCP Preposition Flows: 0
Current Active Auto-Discovery Flows:          5
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
3722    10.10.10.10:2162   10.10.100.100:445  00:14:5e:84:24:5f  TCDL
3924    10.10.10.10:2464   10.10.100.101:445  00:14:5e:84:24:5f  TGDG      <-----
Look for "G"
```

如果您仔细查看上述连接，您将看到CIFS已配置，但通用AO的应用如下：

```
WAE674# sh stat connection conn-id 3924
```

```
Connection Id:          3924
  Peer Id:                00:14:5e:84:24:5f
```

```

Connection Type:          EXTERNAL CLIENT
Start Time:               Thu Jul 16 06:10:44 2009
Source IP Address:       10.10.10.10
Source Port Number:      2464
Destination IP Address:  10.10.100.101
Destination Port Number: 445
Application Name:        WAFS
Classifier Name:          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 <-----CIFS configured
    Derived:              CIFS
    Applied:              GENERICAO <-----Generic applied
    Hist:                 CIFS

```

要从Central Manager查看类似信息，请选择WAE设备，然后选择Monitor > Optimization > Connections Statistics。通用AO处理的连接如下所示：

图1.通用连接统计报告

可以使用show statistics accelerator generic detail命令查看有关通用AO正在处理的连接的更多详细信息，如下所示：

```

WAE# sh stat accelerator generic detail

Generic:
-----

Time elapsed since "clear statistics": 1days 18hr 25min 20sec

    Time Accelerator was started:          Tue Jul 14
11:55:02 2009
    Time Statistics were Last Reset/Cleared: Tue Jul 14
11:55:02 2009
    Total Handled Connections:              366
    Total Optimized Connections:           366
    Total Connections Handed-off with Compression Policies Unchanged: 0
    Total Dropped Connections:             0

```

```

Current Active Connections:                1
Current Pending Connections:              0
Maximum Active Connections:               2
. . .

Global Generic AO connection statistics
=====
Total number of connections handled:      366          <-----
-
Total number of active connections:       1
Total number of bytes transferred from client: 12055
Total number of bytes transferred from server: 12492

Global Generic AO connection error statistics
=====
Source connection closed:                 730
Destination connection closed:            0
Source connection aborted:                0
Destination connection aborted:           0
Source connection error:                  0
Destination connection error:             0
Out of memory:                            0
Kernel Queue abort error:                0

```

如果您看到处理的连接总数很大，某种配置或通信错误可能会导致大量连接被下推。

通用AO日志记录

以下日志文件可用于排除一般AO问题：

- 事务日志文件：/local1/logs/tfo/working.log (和/local1/logs/tfo/tfo_log_*.txt)
- 调试日志文件：/local1/errorlog/genericao-errorlog.current (和genericao-errorlog.*)

为便于调试，您应首先设置ACL，将数据包限制到一台主机。

```

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

```

要启用事务记录，请按如下方式使用transaction-logs配置命令：

```

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

```

要设置和启用通用AO的调试日志记录，请使用以下命令。

NOTE:调试日志记录占用大量CPU资源，并且可以生成大量输出。在生产环境中谨慎、谨慎地使用它。

您可以按如下方式启用详细的日志记录到磁盘：

```

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

```

您可以为ACL中的连接启用调试日志记录，如下所示：

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

通用AO调试的选项如下：

```
WAE674# debug accelerator generic ?
```

```
all          enable all GENERIC accelerator debugs  
connection  enable GENERIC accelerator connection debugs  
misc        enable GENERIC accelerator miscellaneous debugs  
shell       enable GENERIC accelerator shell debugs  
stats       enable GENERIC accelerator stats debugs
```

您可以为通用AO连接启用调试日志记录，然后显示调试错误日志的结尾，如下所示：

```
WAE674# debug accelerator generic connection
```

```
WAE674# type-tail errorlog/genericao-errorlog.current follow
```