所有VOS裝置型號上的增強型資料包捕獲

目錄

簡介

本文描述了檢視語音作業系統(VOS)節點和電話/網關/第三方伺服器之間的跟蹤的流程。

當您在Cisco Unified Communications Manager(CUCM)、Cisco Unified Contact Center Express(UCCX)、Cisco Unity Connection(CUC)或即時消息和線上狀態(IM&P)中排除故障時，有時需要收集資料包來解決VOS伺服器上的網路介面之間傳送的間歇性問題。CUCM 11.X版會顯示命令和螢幕截圖，CUC、UCCX和IM&P（11.X及更高版本）也可應用相同命令。

必要條件

需求

思科建議您瞭解以下主題：

- CUCM
- UCCX
- CUC
- IM&P版本11.X及更高版本

採用元件

本文檔中的資訊基於Call Manager 11.X。

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除（預設）的組態來啟動。如果您的網路運作中，請確保您瞭解任何指令可能造成的影響。

設定

正常介面封包擷取

步驟1.連線到CUCM主機。

使用安全外殼(SSH)客戶端（如Putty/SecureCRT）連線到CUCM節點，如圖所示。

步驟2.準備捕獲跟蹤檔案。

現在，在管理提示後，您可以開始準備捕獲網路實用程式以捕獲資料包，如圖所示。


```
utils network capture              [Currently available option]
utils network capture-rotate  [New feature available from CUCM, UCCX, CUC, IMP version 11.X]
```

步驟3.對於通常的捕獲，可能希望將所有大小從ALL地址到所有ALL地址的所有資料包收集到一個名為PC.cap的捕獲檔案中。為此，只需在管理CLI上運行**utils network capture eth0 file packets count 100000 size all**，如下圖所示。

步驟4.按**Ctrl + C**以停止擷取。

- 捕獲到檔案時的有限資料包數(100000)（使用上述選項的限制）
- 難以捕獲間歇性問題

現在，如果您要捕獲大於100000的資料包或出現間歇性問題，該怎麼辦？因此，此增強方法用於收集CUCM介面上的捕獲。

增強型封包擷取

功能

- 捕獲超過100000個資料包
- 基於設定引數連續捕獲
- 捕獲間歇性問題
- 利用更大的通用分割槽
- 限制/限制：不佔用整個公用分割槽或觸發LowWaterMark條件

組態

您可以使用此方法來新增旋轉檔案引數：

```
admin:utils network capture-rotate file PC maxfiles 40 sizeperfile 20

Syntax:


utils network capture-rotate [options]


file fname - output the information to a file          //Note: The file will be saved in
platform/cli/fname. fname should not contain the "." character

size bytes              - the number of bytes of the packet to capture.   //Note: Valid values
include any number up to 65535 or ALL. The default will be ALL.

sizePerFile megabytes   - the sizePerFile sets the value for the size of the log files.
//Note: The default value of sizePerFile is 25 MB.

maxFiles num            - the maxFiles indicates the maximum number of log files to be created.
// Note: The default value of maxFiles is 10.

src addr                 - the source address of the packet as a host name or IPV4 address
dest addr                - the destination address of the packet as a host name or IPV4 address
port num                 - the port number of the packet (either src or dest)
host protocol addr       - the protocol should be one of the following: ip/arp/rarp/all. The host
address of the packet as a host name or IPV4 address. This option will display all packets to
and fro that address.
```

附註：如果提供了主機，則不提供src或dest。

該圖顯示了成功的資料包捕獲旋轉命令：

```
admin:utils network capture-rotate file test maxfiles 40 sizeperfile 20

Available common partition disk space          48984M
Projected disk usage from capture              800M
Total common partition size                    68863M

Projected common partition utilization after capture is 24%.
The configured common partition low water mark is 90%.
For any given set of parameters, utilization must remain below 85%.

Note:
                Current disk utilization from packet captures is 688K.
                Packet captures will remain on disk until deleted.
                It is recommended to delete these captures periodically.
                    To list all captures, please run 'file list activelog platform/cli/*.cap*'
                    To download captures, please run 'file get activelog platform/cli/*.cap*'
                    To delete captures, please run   'file delete activelog platform/cli/*.cap*'

Executing command with options:
 size=65535              interface=eth0
 sizePerFile=20          maxFiles=40
 src=                    dest=
 port=                   ip=
```

驗證

目前沒有適用於此組態的驗證程序。

疑難排解

本節提供的資訊可用於對組態進行疑難排解。

低水位線(LWM)表示日誌（通用）分割槽上的可用磁碟空間不足。如果公共分割槽超過(LWM - 5)，則阻止捕獲。

點選LWM時，捕獲失敗，如圖所示。

```
admin:utils network capture-rotate file test maxfiles 40 sizeperfile 2000

Available common partition disk space          48979M
Projected disk usage from capture              80000M
Total common partition size                    68863M

Projected common partition utilization after capture is 137%.
The configured common partition low water mark is 90%.
For any given set of parameters, utilization must remain below 85%.

Note:
                Current disk utilization from packet captures is 704K.
                Packet captures will remain on disk until deleted.
                It is recommended to delete these captures periodically.
                    To list all captures, please run 'file list activelog platform/cli/*.cap*'
                    To download captures, please run 'file get activelog platform/cli/*.cap*'
                    To delete captures, please run   'file delete activelog platform/cli/*.cap*'

Insufficient common partition space available to perform capture operation.
Capture cannot be performed if projected disk usage will trigger a LowWaterMark condition.
To increase the available common partition space, expand the hard disk and restart the server.


Executed command unsuccessfully
```

如果資料庫關閉，LWM的查詢失敗，則發佈的錯誤如下圖所示。


```
admin:utils network capture rotate file test maxfiles 40 sizeperfile 20
ERROR: DBQuery failed or failed to parse a number!
Available common partition disk space        40504M
Projected disk usage from capture            800M
Total common partition size                  68863M

Projected common partition utilization after capture is 24%.
Failed to parse a number from . Will use default limit of 85%.
For any given set of parameters, utilization must remain below 85%.

Note:
                Current disk utilization from packet captures is 704K.
                Packet captures will remain on disk until deleted.
                It is recommended to delete these captures periodically.
                        To list all captures, please run 'file list activelog platform/cli/*.cap*'
                        To download captures, please run 'file get activelog platform/cli/*.cap*'
                        To delete captures, please run   'file delete activelog platform/cli/*.cap*'

Executing command with options:
 size=65535              interface=eth0
 sizePerFile=20          maxFiles=40
 src=                    dest=
 port=                   ip=
```

如果查詢LWM失敗，則增強型捕獲命令將失敗，並顯示資料庫錯誤。這些命令從資料庫中查詢LWM配置並減去5，因此，如果資料庫關閉，則假設LWM為90%並列印警告。

增強捕獲的檔案格式：


```
<filename>.cap0, <filename>.cap1
<filename>.cap00, <filename>.cap01
```
CLI命令以收集封包擷取：


```
file get activelog platform/cli/*.cap*
```
從即時監控工具(RTMT)收集包捕獲。 導覽至System > Trace & Log central > Collect files > Packet Capture Logs，如下圖所示。

> **附註**：為了恢復公用分割槽空間，可能需要刪除捕獲檔案。

> **附註**：如果CLI會話已關閉，而rotate命令處於活動狀態，則資料包捕獲將在視窗關閉時停止（並儲存）。

資料包捕獲在刪除之前仍保留在磁碟上。建議定期刪除這些捕獲。

- 要列出所有捕獲，請運行**file list activelog platform/cli/*.cap***
- 要下載捕獲，請運行**file get activelog platform/cli/*.cap***
- 若要刪除捕獲，請運行**file delete activelog platform/cli/*.cap***

如何透過SSH FTP(SFTP)伺服器下載擷取，如下圖所示。

```
admin:file get activelog platform/cli/*.cap*
Please wait while the system is gathering files info ...
 Get file: /var/log/active/platform/cli/PC.cap00
done.
Sub-directories were not traversed.
Number of files affected: 1
Total size in Bytes: 938257
Total size in Kbytes: 916.2666
Would you like to proceed [y/n]? y
SFTP server IP: 10.196.105.113
SFTP server port [22]:
User ID: tester
Password: ********
Download directory: /

The authenticity of host '10.196.1  .113 (10.196.   .113)' can't be established.
RSA key fingerprint is eb:78:9f:4e:82:8f:c8:bc:4c:1b:47:dc:d4:b5:b6:eb.
Are you sure you want to continue connecting (yes/no)? yes

Transfer completed.
```