# 在CPS中將CRD從錯誤狀態恢復的過程

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# 簡介

本檔案介紹將思科原則套件(CPS)自訂參考資料(CRD)表從BAD狀態還原的過程。

# 必要條件

### 需求

思科建議您瞭解以下主題:

- Linux
- CPS
- MongoDB

思科建議您必須具有許可權訪問許可權:

- 對CPS CLI的Root訪問許可權
- •「qns-svn」使用者訪問CPS GUI(策略生成器和CPS Central)

### 採用元件

本文中的資訊係根據以下軟體和硬體版本:

- CPS 20.2
- MongoDB v3.6.17
- UCS-B

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。

# 背景資訊

在CPS中,CRD表用於儲存從策略生成器發佈並與會話管理器上託管MongoDB例項中存在的CRD DB關聯的自定義策略配置資訊。通過CPS中央GUI在CRD表中執行匯出和匯入操作,以便處理 CRD表資料。

### 問題

如果在執行匯入所有操作時出現任何型別的錯誤,則CPS會停止該進程,將系統設定為BAD狀態並 阻止CRD API執行。CPS向客戶端傳送錯誤響應,指示系統處於BAD狀態。如果系統處於BAD狀態 ,並且重新啟動量子網路套件(QNS)/使用者資料通道(UDC)伺服器,則使用golden-crd資料構建 CRD快取。如果系統BAD狀態為FALSE,則使用MongoDB構建CRD快取。

以下是CPS中心錯誤影象以供參考。

-ducle: CPS Central Cardo CPS Central		
System - CRD is BAD		
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⊖ Custom Reference Da	a Tables Close Al	
	Filter CRD Table List	
Display Name (Name)	Import / Export	ĺ
IN EQUIPMENT	2.2	
IN EQUIPMENT_SPEED	2.2	
El Event ID	2.2	
BIDU_MB_LOCK		ł
GINTERNET TO TABLET 4MPT	2.2	
G Quota: Account Balance	2.2	
A Quota: One Time Quota	a 2	

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Export Custom Reference Data Export at the CRD tables into a single file which can be imported Coefficient environment Coefficient Coeff		"Error Docured during Morgo and Golden CrdVersion validation. Please check log and and try to import				
Exports all the CRD lables into a single file which can be imported       Core         I due 'by' file extension. Enablies easier viewing of export contents for advanced uses.       Import CPD to Balaes Repository. When system experiences errors importing new ord data the ord cache will be built by using golden ord data.         Export       Import Custom Reference Data         Warning: This will overwrite or add into CRD data.       Import the tables:         File to Import       export_ord_20210714030001873830208         Asiar CRD acheene waldedon.       "Processmas stare to push existing of data hto Golden CRD repository before performing Import All (by selecting "Export CRD to Golden" Export CRD to Golden" Export CRD to Golden	Export Custom Reference Data	agan				
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File to Import         export_crd_20210714030001673830298           Asiar CRD scheme validation.         "Prease make sure to push existing crd data into Golden CRD repository before performing Import All (by selecting "Export CRD to Golden Repository" checkbox).	Import the tables:					
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- 1. CRD操作被阻止。您只能檢視資料。
- 2. 阻止除\_import\_all、\_list和\_query之外的CRD API。
- 3. QNS重啟從golden-crd位置提取CRD資料。
- 4. 重新啟動QNS/UDC既不修復系統BAD狀態也不修復呼叫丟棄,它只從golden-crd構建CRD快 取。
- 5. 使用golden-crd資料構建的CRD快取。如果系統BAD狀態為FALSE,則使用MongoDB構建 crd快取。

以下是CPS qns.log中的關聯消息:

qns02 qns02 2021-07-29 11:16:50,820 [pool-50847-thread-1] INFO c.b.c.i.e.ApplicationInterceptor - System -CRD is in bad state. All CRD APIs (except import all, list and query), are blocked and user is not allowed to use. Please verify your crd schema/crd data and try again! qns02 qns02 2021-07-28 11:33:59,788 [pool-50847-thread-1] WARN c.b.c.i.CustomerReferenceDataManager -System is in BAD state. Data will be fetched from svn golden-crd repository. qns01 qns01 2021-07-28 11:55:24,256 [pool-50847-thread-1] WARN c.b.c.i.e.ApplicationInterceptor - ApplicationInterceptor: Is system bad: true

## 將CRD從BAD狀態還原的過程

### 方針1.

為了清除系統狀態,您需要從涉及從CPS中心匯入有效CRD資料的策略生成器中匯入有效且正確的 CRD架構,如果全部匯入成功,則會清除系統狀態並解除阻止所有CRD API和操作。

#### 此處提供詳細步驟:

步驟1.運行此命令以備份CRD資料庫。

Command template: #mongodump --host <session\_manager> --port <cust\_ref\_data\_port> --db cust\_ref\_data -o cust\_ref\_data\_backup

Sample command: #mongodump --host sessionmgr01 --port 27717 --db cust\_ref\_data -o cust\_ref\_data\_backup

#### **附註**:有關CRD DB主機和埠的資訊,請參閱PB中的自定義參考資料配置,如下圖所示。

cisco. Policy BU	Hostname: dc1-porto	lient01 SVN URL: http://bvip62/reposition/figuration	SVN Revision: 49	REFERENCE DATA SERVICES					
File Toola									
🖬 🕸 🕸 🗶 🕪 🗠									
Systems	Custom Reference Data Co	ofiguration							
Summary	Caston Reference Data Comparation								
a 🜄 equian-1	*Primary Database IP Address	Secondary Database IP Address							
4 📴 Plugin Configurations	sessionmgr01	sessionmgr02							
Threading Configuration	*Database Port	10b Bood Preference							
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Audit Configuration	ETTE	Primary							
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Castors Reference Data Cost =	100								
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Initial All Contra paties	Playma		op Name						
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Account Balance Templates									
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Diameter Clients									

#### 步驟2.使用此過程刪除CRD表(整個DB)。

#### 步驟2.1.登入到存在CRD DB的mongo例項。

Command template: #mongo --host <sessionmgrXX> --port <cust\_ref\_data\_port>

Sample command: #mongo --host sessionmgr01 --port 27717 步驟2.2.運行此命令以顯示mongo例項中存在的所有資料庫。

set01:PRIMARY> show dbs
admin 0.031GB
config 0.031GB
cust\_ref\_data 0.125GB
local 5.029GB
session\_cache 0.031GB
sk\_cache 0.031GB
set01:PRIMARY>
步驟2.3.運行此命令以切換到CRD DB。

set01:PRIMARY> use cust\_ref\_data
switched to db cust\_ref\_data
set01:PRIMARY

#### 步驟2.4.運行此命令以刪除CRD DB。

```
set01:PRIMARY> db.dropDatabase()
{
   "dropped" : "cust_ref_data",
   "ok" : 1,
   "operationTime" : Timestamp(1631074286, 13),
   "$clusterTime" : {
   "clusterTime" : Timestamp(1631074286, 13),
   "signature" : {
   "hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
"),
```

"keyId" : NumberLong(0)
}}
set01:PRIMARY>
步驟3.使用show dbs命令驗證不存在名為cust ref data的資料庫。

set01:PRIMARY> show dbs admin 0.031GB config 0.031GB local 5.029GB session\_cache 0.031GB sk\_cache 0.031GB set01:PRIMARY> 步驟4.使用「qns-svn」使用者登入策略生成器並發佈有效的CRD架構。

步驟5.使用restartall.sh從群集管理器重新啟動qns進程。

步驟6.驗證診斷是否正常,以及CRD表中沒有條目。CRD表中必須只有架構,即沒有任何資料。

步驟7.使用「qns-svn」使用者登入到CPS Central,然後匯入有效的CRD資料。

步驟8.驗證「import all returns successful」消息和「system - CRD is BAD」錯誤消息(未顯示在 CPS Central中)。

步驟9.驗證是否已解除鎖定所有CRD API,您現在可以處理CRD資料。

如果第一種方法不起作用,則選擇第二種方法。

#### 方針2.

步驟1.使用diagnostics.sh —get\_r命令確定託管DB Mongo例項的主機和埠。

[root@installer ~]# diagnostics.shget_r CPS Diagnostics HA Multi-Node Environment	
Checking replica sets 	
   Mongo:v3.6.17 MONGODB REPLICA-SETS STATUS INFORMATION Date : 2021-09-14 02:56:23   	
     SET NAME - PORT : IP ADDRESS - REPLICA STATE - HOST NAME - HEALTH - LAST SYNC - PRIORITY   	
ADMIN:set06   Status via arbitervip:27721 sessionmgr01:27721 sessionmgr02:27721   Member-1 - 27721 : - PRIMARY - sessionmgr01 - ON-LINE 3   Member-2 - 27721 : - SECONDARY - sessionmgr02 - ON-LINE - 1 sec - 2   Member-3 - 27721 : 192.168.10.146 - ARBITER - arbitervip - ON-LINE 0	

#### 步驟2.登入到存在ADMIN DB的mongo例項。

Command template: #mongo --host <sessionmgrXX> --port <Admin\_DB\_\_port>

Sample Command: #mongo --host sessionmgr01 --port 27721 步驟3.運行此命令以顯示mongo例項中存在的所有資料庫。

set06:PRIMARY> show dbs admin 0.078GB config 0.078GB diameter 0.078GB keystore 0.078GB local 4.076GB policy\_trace 2.078GB queueing 0.078GB scheduler 0.078GB sharding 0.078GB set06:PRIMARY> 步驟4.運行此命令以切換到管理資料庫。

set06:PRIMARY> use admin switched to db admin set06:PRIMARY> 步驟5.運行此命令可顯示ADMIN DB中存在的所有表。

set06:PRIMARY> show tables state system.indexes system.keys system.version set06:PRIMARY> 步驟6.運行此命令以檢查系統的當前狀態。

set06:PRIMARY> db.state.find()
{ "\_id" : "state", "isSystemBad" : true, "lastUpdatedDate" : ISODate("2021-08-11T15:01:13.313Z")
}
set06:PRIMARY>

在這裡,您可以看到「isSystemBad」 :真的。因此,您必須將此欄位更新為「false」,才能使用下 一步中提供的命令清除CRD BAD狀態。

步驟7.使用命令db.state.updateOne({\_id:"state"},{\$set:{isSystemBad:false})更新欄位 "isSystemBAD"。

set06:PRIMARY> db.state.updateOne({\_id:"state"},{\$set:{isSystemBad:false}})
{ "acknowledged" : true, "matchedCount" : 0, "modifiedCount" : 0 }
set06:PRIMARY>

步驟8.運行命令db.state.find()以檢查isSystemBad欄位值是否已更改為false。

set06:PRIMARY> db.state.find()
{ "\_id" : "state", "isSystemBad" : false, "lastUpdatedDate" : ISODate("2021-0811T15:01:13.313Z") }
set06:PRIMARY>
步驟9.驗證所有CRD API是否已解鎖,您現在可以處理CRD資料。