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## Scenario Setup

### System Console

1. Stop EAAS process

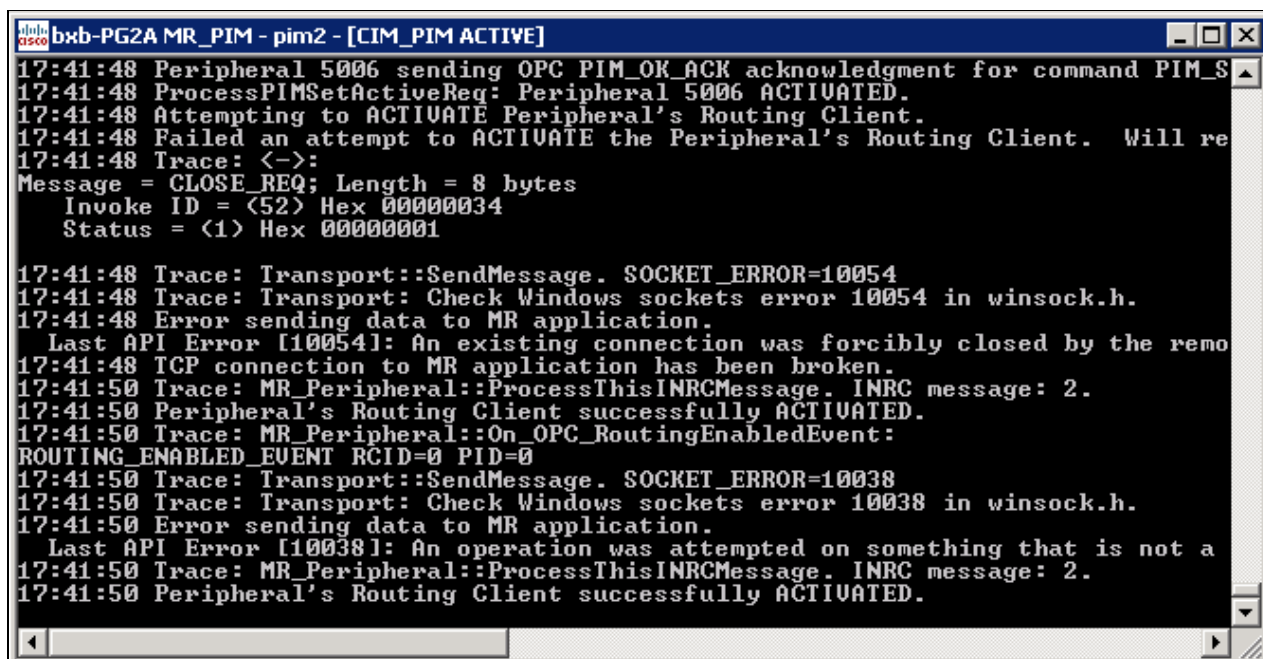
### UCCE

1. Rename user.cisco.cmb to user.cisco.cmbb
2. Cycle MR PG on both sides

## Problem Statement

Intermittent routing issues have been observed. MR PIM shows ACTIVE, but is disconnecting due to socket errors.

## MR\_PIM\_Active\_But\_Showing\_Socket\_Errors



```
bxb-PG2A MR_PIM - pim2 - [CIM_PIM ACTIVE]
17:41:48 Peripheral 5006 sending OPC PIM_OK_ACK acknowledgment for command PIM_S
17:41:48 ProcessPIMSetActiveReq: Peripheral 5006 ACTIUATED.
17:41:48 Attempting to ACTIUATE Peripheral's Routing Client.
17:41:48 Failed an attempt to ACTIUATE the Peripheral's Routing Client. Will re
17:41:48 Trace: <->:
Message = CLOSE_REQ; Length = 8 bytes
Invoke ID = <52> Hex 00000034
Status = <1> Hex 00000001
17:41:48 Trace: Transport::SendMessage. SOCKET_ERROR=10054
17:41:48 Trace: Transport: Check Windows sockets error 10054 in winsock.h.
17:41:48 Error sending data to MR application.
Last API Error [10054]: An existing connection was forcibly closed by the remo
17:41:48 TCP connection to MR application has been broken.
17:41:50 Trace: MR_Peripheral::ProcessThisINRCMessage. INRC message: 2.
17:41:50 Peripheral's Routing Client successfully ACTIUATED.
17:41:50 Trace: MR_Peripheral::On OPC_RoutingEnabledEvent:
ROUTING_ENABLED_EVENT RCID=0 PID=0
17:41:50 Trace: Transport::SendMessage. SOCKET_ERROR=10038
17:41:50 Trace: Transport: Check Windows sockets error 10038 in winsock.h.
17:41:50 Error sending data to MR application.
Last API Error [10038]: An operation was attempted on something that is not a
17:41:50 Trace: MR_Peripheral::ProcessThisINRCMessage. INRC message: 2.
17:41:50 Peripheral's Routing Client successfully ACTIUATED.
```

**Note:** With Windows 2008 R2, these process windows would not be seen. Instead, the above would be observed using EMSMON or by dumping logs to text files.

## Message Flow

In a normal startup, the MR PIM should follow the below flow:

1. OPEN\_REQ
2. OPEN\_RESP
3. MR\_REGISTER\_VARIABLES\_REQ
4. MR\_REGISTER\_VARIABLES\_RESP
5. ROUTING\_ENABLED\_EVENT
6. Routing Client successfully ACTIVATED

In this case, we are seeing:

1. OPEN\_REQ
2. OPEN\_RESP
3. CLOSE\_REQ
4. CLOSE\_RESP

The MR is never registering the ECC Variables.

## EAAS Logs

The EAAS logs will provide guidance as to where the failure is occurring.

```
2011-06-05 23:16:08.080 GMT-0400 <@> ERROR <@> [788:Thread-369] <@> ProcessId:4184 <@> PID:1 <@> U
2011-06-05 23:16:08.080 GMT-0400 <@> ERROR <@> [788:Thread-369] <@> ProcessId:4184 <@> PID:1 <@> U
java.lang.NullPointerException
```

EAAS is unable to register user.cisco.cmb, which explains what we saw in the MR PIM logs.

## ECC Variable Naming

### EIM/WIM

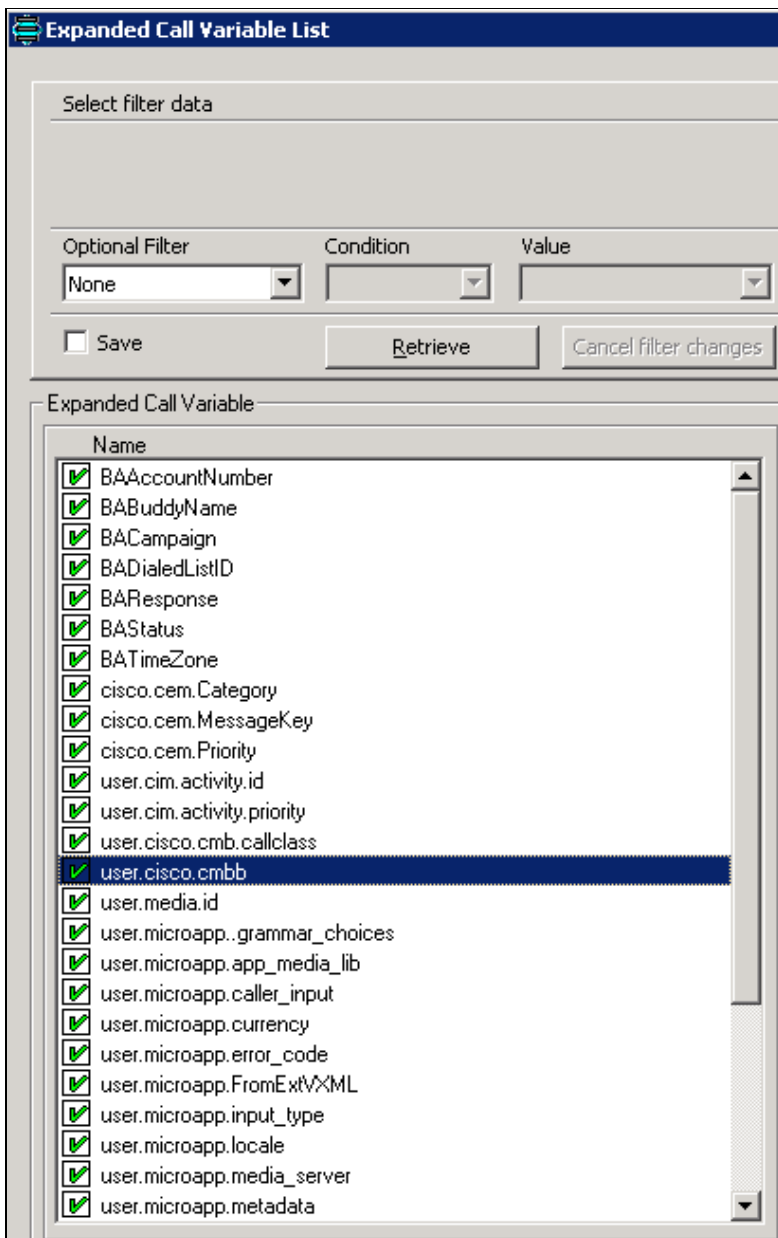
By default, EIM/WIM looks for ECC Variables with specific names. These variables are set on the File Server in C:\CIM\eService\config\ipcc\egicm\_ecc\_variables\_name.properties

```
# Name of ECC Variables used for Blended Collaboration and Callback queues
# Structure of this file is ecc variable name = unique identifier in CIM Code
user.cim.activity.id = 1
user.wim.customer.name = 2
user.cisco.cmb = 3
user.cisco.cmb.callclass = 4
```

We know that EAAS is looking for user.cisco.cmb correctly, so the issue must be on the UCCE side.

### UCCE

Navigate to Configuration Manager > Expanded Call Variable List and look for user.cisco.cmb. Here we can see that the variable name has been typed incorrectly as "user.cisco.cmbb". Remove the extra "b" and save.



## Cycle EAAS!

The EAAS process must be restarted once the ECC Variable names in UCCE have been updated.

```

23:58:28:603 pg2A-pim2 Attempting to connect to MR application at IP address 10.77.30.32 port 38101
23:58:28:603 pg2A-pim2 Trace: Transport: Making connection attempt to host1: 43srvc port: 38101
23:58:28:603 pg2A-pim2 Connection to MR application established.
23:58:28:603 pg2A-pim2 Trace: PG->Application:
Message = OPEN_REQ; Length = 20 bytes
  InvokeID = (66403500) Hex 03f53cac
  HeartbeatInterval = (5000) Hex 00001388
  MsgInterfaceRev = (1) Hex 00000001
  Hostname: icm751
  VersionNumber:

23:58:28:713 pg2A-pim2 Trace: Application->PG:
Message = OPEN_RESP; Length = 25 bytes

```

## MR\_PIM\_Active\_But\_Showing\_Socket\_Errors

Invoke ID = (66403500) Hex 03f53cac  
Prior Failure = (0) Hex 00000000  
Status = (0) Hex 00000000  
Hostname:  
VersionNumber: 7.0.0.0

```
23:58:28:713 pg2A-pim2 Peripheral 5006 sending OPC PIM_OK_ACK acknowledgment for command PIM_SET_A
23:58:28:713 pg2A-pim2 ProcessPIMSetActiveReq: Peripheral 5006 ACTIVATED.
23:58:28:713 pg2A-pim2 Attempting to ACTIVATE Peripheral's Routing Client.
23:58:28:713 pg2A-pim2 Failed an attempt to ACTIVATE the Peripheral's Routing Client. Will retry.
23:58:28:791 pg2A-pim2 Trace: Application->PG:
Message = MR_REGISTER_VARIABLES_REQ; Length = 136 bytes
  InvokeID = (1) Hex 00000001
  Call Variable Mask: (1023) Hex 000003ff
  NumberOfVariables = (5) Hex 00000005
  NumberOfArrayElements = (0) Hex 00000000
ECC Variable Name: user.cim.activity.id
Value:
ECC Variable Name: user.wim.customer.name
Value:
ECC Variable Name: user.cisco.cmb
Value:
ECC Variable Name: user.cisco.cmb.callclass
Value:
ECC Variable Name: user.cim.activity.priority
Value:

23:58:28:791 pg2A-pim2 Trace: Media Routing Application registered ECC variable: "user.cim.activit
23:58:28:791 pg2A-pim2 Trace: Media Routing Application registered ECC variable: "user.wim.custome
23:58:28:791 pg2A-pim2 Trace: Media Routing Application registered ECC variable: "user.cisco.cmb"
23:58:28:791 pg2A-pim2 Trace: Media Routing Application registered ECC variable: "user.cisco.cmb.c
23:58:28:791 pg2A-pim2 Trace: Media Routing Application registered ECC variable: "user.cim.activit
23:58:28:791 pg2A-pim2 Trace: ICM->Application:
Message = MR_REGISTER_VARIABLES_RESP; Length = 8 bytes
  Invoke ID = (1) Hex 00000001
  Status = (0) Hex 00000000

23:58:29:994 pg2A-pim2 Trace: MR_Peripheral::ProcessThisINRCMessage. INRC message: 2.
23:58:29:994 pg2A-pim2 Peripheral's Routing Client successfully ACTIVATED.
23:58:29:994 pg2A-pim2 Trace: MR_Peripheral::On_OPC_RoutingEnabledEvent:
ROUTING_ENABLED_EVENT RCID=0 PID=0
23:58:29:994 pg2A-pim2 Trace: PG->Application:
Message = ROUTING_ENABLED_EVENT; Length = 0 bytes

23:58:30:041 pg2A-pim2 Trace: MR_Peripheral::ProcessThisINRCMessage. INRC message: 2.
23:58:30:041 pg2A-pim2 Peripheral's Routing Client successfully ACTIVATED.
```

## Impact to CMB

How does this impact CMB? Place a callback request and observe that this fails as well.

## Resolution

This scenario stressed the importance of items being configured as documented. Items such as Media Classes, Media Routing Domains, and ECC variables **must** be configured correctly for the integrated connections to come up properly.

The log message in the initial problem statement was misleading, as the root cause is something far from a socket error.