

Troubleshoot Call and ECC Variables Issue

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Introduction

This document describes how to troubleshoot on-call and Expanded Call Context (ECC) variables in Peripheral Gateway (PG).

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Cisco Unified Contact Center Enterprise (UCCE)
- Cisco Package Contact Center Enterprise (PCCE)
- Cisco Unified Communications Manager (CUCM)

Components Used

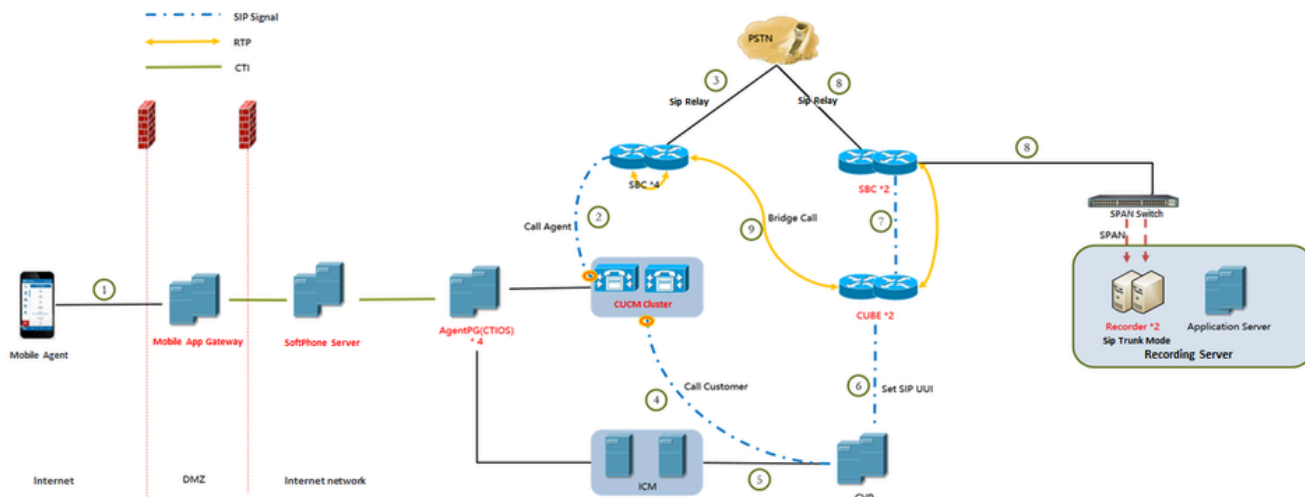
The information in this document is based on Unified Contact Center Enterprise Version 12.6(1).

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

Background Information

The JTAPI Gateway (JGW) process is the one responsible for initializing communications with the CUCM through JTAPI. 3rd also uses CTI to establish a connection with Agent PG. The Call and ECC variables are not enabled as a part of default trace settings.

Overview



that's one moible agent make call to self-mobile phone. the call with ECC but the ECC can not be checked in the TCD table. in this example, we use define ECC paramter in the Variable 4.

High-Level Call Flow

The mobile agent makes an outgoing call from CTIOS, and AgentPG sends the call to CUCM by PG Jtapi.
CUCM sent a call to SBC with MTP involved.
SBC calls the Agent's mobile phone and the agent answers the mobile phone and hears music on hold.
CUCM sends a call to CVP with MTP involved.
CVP sends a call to ICM and ICM performs the call process by script, setting Sip header to CVP.
CVP sends a call to CUBE and SIP with UUI.
CUBE sends the call to SBC.
SBC sends a call to your mobile phone, you answer the phone. In the meanwhile, the Recorder process with SIP UUI.
CUCM makes Agent call and your calls merge into one ad-hoc conference.

The call is disconnected.

Troubleshoot

1. These Variables can be Enabled for the Peripheral Gateway and CTI Server Components

OPC: The commands are set using the OPC Test Utility:

```
C:\>opctest /cust ins1 /node PG1A
21:27:53 Trace: EMT Creating Mutex Global\IMTConnect_DisconnectLock
```

To enable ECC and Peripheral variables tracing in OPC, enable the trace levels in OPCTest debug command.

```
opctest: debug /ecc_variables /periph_variables
```

Use `debug /on` to Restore Default Tracing Levels. To disable the ECC and Peripheral variables tracing in OPC, use one of the commands to disable ECC and Peripheral variable tracing. `opctest: debug /on` (this sets the trace level back to default)

```
opctest: debug /on
Use "debug /on" to Restore Default Tracing Levels.
Restoring Default Tracing Levels.
```

```
OPC Current Time: 02/27 05:32:22
OPC Local Time: 02/26 21:32:22 (8.0 hr)
```

```
OPC Current Tracing Levels
```

```
DebugControlFlag1 (0x0):
DebugControlFlag2 (0x10000000): /default
```

Opctest: debug /noecc_variables (this disables the ECC variable tracing).

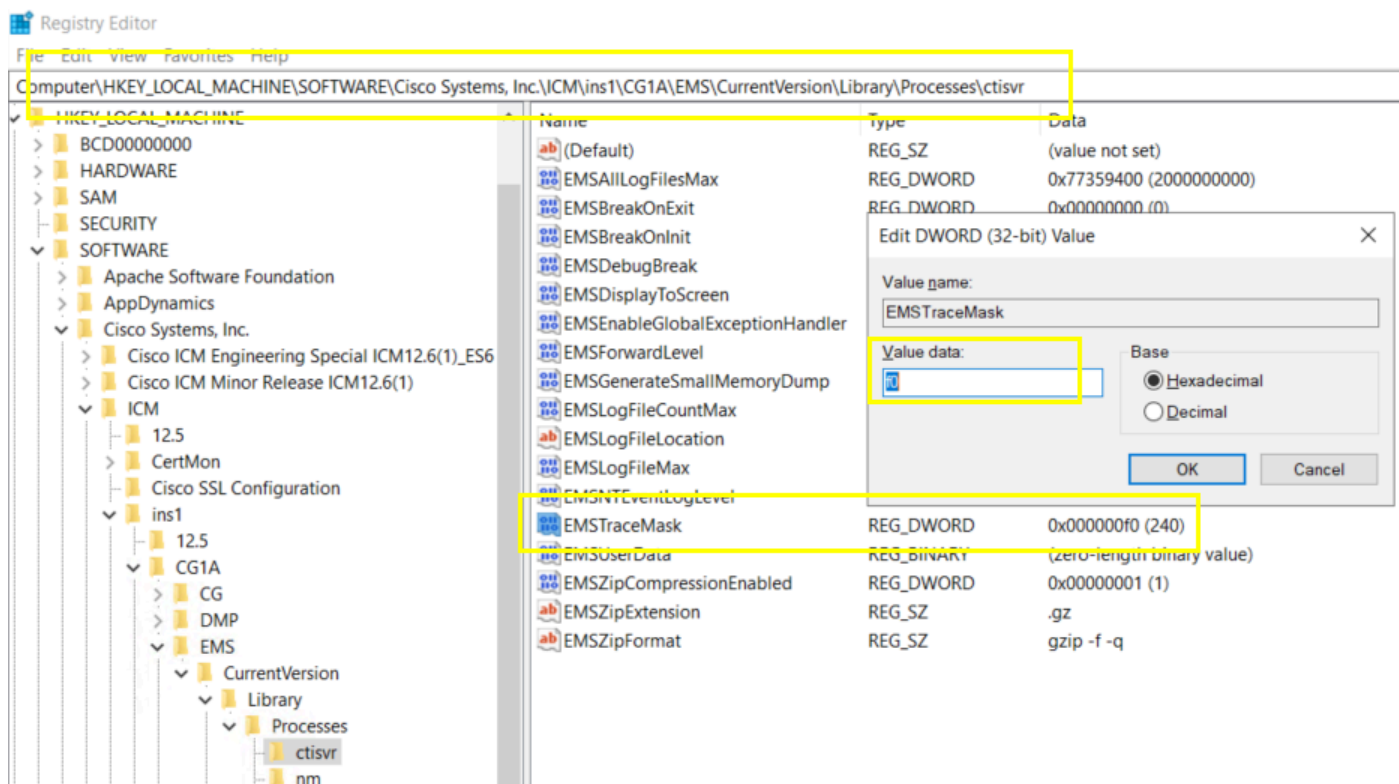
Opctest: debug /noperiph_variables (this disables Peripheral variable tracing).

```
opctest: debug /noecc_variables
Use "debug /on" to Restore Default Tracing Levels.
```

```
opctest: debug /noperiph_variables
Use "debug /on" to Restore Default Tracing Levels.
```

2. CTI Server: The Registry Settings are Modified

1. EMSTracemask=0x04 - Enables tracing of Call variables
2. EMSTracemask=0x02 - Enables tracing of ECC variables



EMSTraceMask

3. Procmon: CallManager PIM and VRU PIM

The commands are used over the procmon utility.

```
C:\>procmon ins1 PG1A pim1
Trace: EMT Creating Mutex Global\IMTConnect_DisconnectLock
Trace: WARNING!!! - Using Procmon during production hours may have performance impact and unexpected se

>>>>trace ecc_variables /on - Enables ECC call variables tracing
>>>>trace ecc_variables /off - Disables peripheral call variables tracing

>>>>trace periph_variables /on - Enables peripheral call variables tracing
>>>>trace periph_variables /off - Disables peripheral call variables tracing
```

4. RTT Test

Enable: debug /noperiph_variables, debug /noecc_variables.

```
C:\>rtttest /cust ins1 /node RouterA
```

```
rttest: debug /periph_variables/ecc_variables
debug_control: Invalid control argument: /periph_variables/ecc_variables
rttest: debug /ecc_variables /periph_variables
```

Disable: debug /noecc_variables /noperiph_variables

```
rttest: debug /noecc_variables /noperiph_variables
```

Log Analyze

1. Non-working Log

PG OPC: Based on the TCD test timestamp and calling phone number 8110343 to find CallingDevice=8110343 and InvokeID=0xf01c6bef.

```
16:09:14:515 PG4A-opc Trace: TPServices::AddInvocationByCTIInvokeID - CTIInvokeID 0x26208ab8 mapped to
16:09:14:515 PG4A-opc Trace: CSTAMakeCall: TPServices::AddInvocationByCTIInvokeID InvokeID=0xf01c6bef C
16:09:14:515 PG4A-opc Trace: PRIVATE_DATA: CallPlacement=0 CallManner=0 ConsultType=0 AlertRings=0 Call
16:09:14:515 PG4A-opc Trace: Name Type Index Value
16:09:14:515 PG4A-opc Trace: user.microapp.FromExtVXML Array 0 013183335003
```

3 seconds later, filter by 8110343 to find CID 18603484. tried to send CTI_CALL_DATA_UPDATE_EVENT. But the connection failed. Due to there is no CSTAMakeCallConfEvent. So call PeripheralVar can not be copied.

```
16:09:17:127 PG4A-opc Trace: CSTA_SERVICE_INITIATED(PID=5006): InitiatedConn=(CID=18603484,Dev=8110343,
16:09:17:127 PG4A-opc Trace: AssignAgentCall: PID=5006 AGID=28946 Periph#=13212933 LineHandle=0 LineType
16:09:17:127 PG4A-opc Trace: Call:SetCallState (PID=5006) - CallID=18603484 CallObj=(0x615bb50) NewStat
16:09:17:127 PG4A-opc Trace: CTI_CALL_CREATED_EVENT: CID=18603484 Src=8110343 Dest: RCK=(0-0)
16:09:17:129 PG4A-opc Trace: CSTA_ORIGINATED(PID=5006): OrigConn=(CID=18603484,Dev=8110343,Type=Static)
16:09:17:129 PG4A-opc Trace: CTI_CALL_DATA_UPDATE_EVENT: CID=18603484 src=8110343 Dest= RCK=(0-0)
16:09:32:595 PG4A-opc Trace: CSTA_NETWORK_REACHED(PID=5006): Conn=(CID=18603484,Dev=5009921602131833350
16:09:32:595 PG4A-opc Trace: Call:SetCallState (PID=5006) - CallID=18603484 CallObj=(0x615bb50) NewStat
16:09:32:595 PG4A-opc Trace: ReclassifyLineInfo: (PID=5006) LineHandle=0 LineType=LT_OUTBOUND(SRC) SrcC
16:09:32:595 PG4A-opc Trace: Call:SetCallState (PID=5006) - CallID=18603484 CallObj=(0x615bb50) NewStat
16:09:32:595 PG4A-opc Trace: CTI_CALL_DATA_UPDATE_EVENT: CID=18603484 src=8110343 Dest= RCK=(0-0)
16:10:19:195 PG4A-opc Trace: CSTA_CONNECTION_CLEARED (PID=5006): DroppedConn=(CID=18603484,Dev=8110343,
16:10:19:195 PG4A-opc Trace: SendCTICallDataUpdateEvent: CID=18603484 (Src:8110343 Dest:) NotifyCTIServ
16:10:19:195 PG4A-opc Trace: Call:SetCallState (PID=5006) - CallID=18603484 CallObj=(0x615bb50) NewStat
16:10:19:195 PG4A-opc Trace: Call::RemoveOfferedSkillGroups - !INFORM! - CallID:18603484 on PID:5006 is
16:10:19:195 PG4A-opc Trace: Cleared(PID=5006): CallObj=(0x0615BB50) SrcConn(CID=18603484,Dev=8110343,D
16:10:19:196 PG4A-opc Trace: TerminateCall: Inst=8110343 Line[0,OUT]:TLK->IDL Conn=(CID=18603484,DevID=
16:10:19:196 PG4A-opc Trace: TerminateCall: AGSTID=28946 PeriphNo=13212933 SG=29747 LineType=OUT Talk=6
16:10:19:196 PG4A-opc Trace: BuildClosedCallRecord(PID=5006): CallObj=0x615bb50 DateTime=10/25 08:10:18
16:10:19:196 PG4A-opc Trace: CTI_CALL_TERMINATED_EVENT: CID=18603484
16:10:19:196 PG4A-opc Trace: CSTA_CALL_CLEARED(PID=5006): clearedCall=(CID=18603484,Dev=,Type=Static) 1
16:10:19:196 PG4A-opc Trace: CSTACallClearedEvent - Call not found for specified connection (CallID=186
```

PIM: The "Third level Text: Got an exception on a call to 'connect' (method 'run' in class ThreadMakeCall)". Try to send makecall to CUCM failed due to (PERERR_GW_E_THREADMAKECALL_GENERIC_CM_ERROR).

```
16:09:14:517 PG4A-pim4 Trace: CSTAMakeCall: Peripheral::ProcessCSTAThirdPartyServiceRequest InvokeID=0x
16:09:32:125 PG4A-pim4 Trace: DeskLinkPeripheral::CSTAUniversalFailureConfEvent - CSTA Error 1 Per Erro
16:09:32:125 PG4A-pim4 Trace: DeskLinkPeripheral::CSTAUniversalFailureConfEvent - Second level Text: JT
16:09:32:125 PG4A-pim4 Trace: DeskLinkPeripheral::CSTAUniversalFailureConfEvent - Third level Text: Got
16:09:32:125 PG4A-pim4 Trace: CSTAUniversalFailureConfEvent: TPServices::CSTAUniversalFailureConfEvent
16:09:32:125 PG4A-pim4 Trace: PRIVATE_DATA: PeripheralErrorCode=0x331d(13085)
```

JGW: You can see the timeout. It cannot meet post conditions of connect(). As an interim workaround, try to adjust JtapiPostConditionTimeout=15 into 20 of the jtapi.ini file. Finally, you need to check the CUCM side.

```
PG4A-jgw4 Trace: 1179230440: %JTAPI-JTAPI-7-UNK: [(P1-MobileAgentUser) GCID=(1,7363991)->ACTIVE]Platform
PG4A-jgw4 Trace: Call to call[24141207].connect(LCP8110343,8110343,9210501775255427560213183335003 ) fa
```

2. Working Log

OPC log: You can see CSTAMakeCall and CSTAMakeCallConfEvent. So the PeripheralVar4 can be sent to RTR/HLGR.

```
16:04:32:909 PG4A-opc Trace: TPServices::AddInvocationByCTIInvokeID - CTIInvokeID 0x262088f1 mapped to
16:04:32:909 PG4A-opc Trace: CSTAMakeCall: TPServices::AddInvocationByCTIInvokeID InvokeID=0xf01c6a6e C
16:04:32:909 PG4A-opc Trace: PRIVATE_DATA: CallPlacement=0 CallManner=0 ConsultType=0 AlertRings=0 Call
16:04:35:671 PG4A-opc Trace: CSTA_SERVICE_INITIATED(PID=5006): InitiatedConn=(CID=18603231,Dev=8110654,
16:04:35:671 PG4A-opc Trace: AssignAgentCall: PID=5006 AGID=26363 Periph#=13210350 LineHandle=0 LineTyp
16:04:35:671 PG4A-opc Trace: Call:SetCallState (PID=5006) - CallID=18603231 CallObj=(0x6091d30) NewStat
16:04:35:671 PG4A-opc Trace: CTI_CALL_CREATED_EVENT: CID=18603231 Src=8110654 Dest: RCK=(0-0)
16:04:35:676 PG4A-opc Trace: CSTA_ORIGINATED(PID=5006): OrigConn=(CID=18603231,Dev=8110654,Type=Static)
16:04:35:676 PG4A-opc Trace: CTI_CALL_DATA_UPDATE_EVENT: CID=18603231 src=8110654 Dest= RCK=(0-0)
16:04:37:001 PG4A-opc Trace: Call(18603231) PeripheralVar2 CTI:set to [2]
16:04:37:001 PG4A-opc Trace: Call(18603231) PeripheralVar4 CTI:set to [13315514536555]
16:04:37:001 PG4A-opc Trace: Call(18603231) PeripheralVar7 CTI:set to [1560000001040855196]
16:04:37:001 PG4A-opc Trace: Call(18603231) PeripheralVar9 CTI:set to [22|15514536555|1234]
16:04:37:001 PG4A-opc Trace: Call(18603231) PeripheralVar10 CTI:set to [DCZZ002Q-E|M|F|COR|]
16:04:37:001 PG4A-opc Trace: CTI_CALL_DATA_UPDATE_EVENT: CID=18603231 src=8110654 Dest= RCK=(0-0)
16:04:37:001 PG4A-opc Trace: CSTAMakeCallConfEvent: CSTAMakeCallConfEvent InvokeID=0xf01c6a6e NewCall(C
16:04:37:002 PG4A-opc Trace: CSTA_NETWORK_REACHED(PID=5006): Conn=(CID=18603231,Dev=3333921133155145365
16:04:37:002 PG4A-opc Trace: Call:SetCallState (PID=5006) - CallID=18603231 CallObj=(0x6091d30) NewStat
16:04:37:003 PG4A-opc Trace: ReclassifyLineInfo: (PID=5006) LineHandle=0 LineType=LT_OUTBOUND(SRC) SrcC
16:04:37:003 PG4A-opc Trace: Call:SetCallState (PID=5006) - CallID=18603231 CallObj=(0x6091d30) NewStat
16:04:37:003 PG4A-opc Trace: CTI_CALL_DATA_UPDATE_EVENT: CID=18603231 src=8110654 Dest= RCK=(0-0)
16:05:03:146 PG4A-opc Trace: CSTAClearCall: TPServices::AddInvocationByCTIInvokeID InvokeID=0xf01c6a8d
16:05:03:157 PG4A-opc Trace: CSTA_CONNECTION_CLEARED (PID=5006): DroppedConn=(CID=18603231,Dev=8110654,
16:05:03:157 PG4A-opc Trace: SendCTICallDataUpdateEvent: CID=18603231 (Src=8110654 Dest=) NotifyCTIServ
16:05:03:157 PG4A-opc Trace: Call:SetCallState (PID=5006) - CallID=18603231 CallObj=(0x6091d30) NewStat
16:05:03:157 PG4A-opc Trace: Call::RemoveOfferedSkillGroups - !INFORM! - CallID:18603231 on PID:5006 is
16:05:03:157 PG4A-opc Trace: Cleared(PID=5006): CallObj=(0x06091D30) SrcConn(CID=18603231,Dev=8110654,D
16:05:03:158 PG4A-opc Trace: TerminateCall: Inst=8110654 Line[0,OUT]:TLK->IDL Conn=(CID=18603231,DevID=
```

16:05:03:158 PG4A-opc Trace: TerminateCall: AGSTID=26363 PeriphNo=13210350 SG=29747 LineType=OUT Talk=2
16:05:03:158 PG4A-opc Trace: BuildClosedCallRecord(PID=5006): CallObj=0x6091d30 DateTime=10/25 08:05:02
16:05:03:158 PG4A-opc Trace: CTI_CALL_TERMINATED_EVENT: CID=18603231
16:05:03:158 PG4A-opc Trace: CSTA_CALL_CLEARED(PID=5006): clearedCall=(CID=18603231,Dev=,Type=Static) 1
16:05:03:158 PG4A-opc Trace: CSTACallClearedEvent - Call not found for specified connection (CallID=186

Related Information

- [OPC TEST](#)
- [Procmon](#)
- [RTT TEST](#)
- [Related Trace Level](#)
- [Cisco Technical Support & Downloads](#)